

# Project Multitris

Group 23

Marcus Dicander

Måns Olson

Tomas Alaeus

Daniel Boström

Oscar Olsson

## 4. Graphical User Interface

When the application starts the user is presented with the main menu (figure 1). The user may choose between the following options:

### **Host game**

Lets the user start a network game. The user is then prompted for a name and the maximum number of players allowed in the session (figure 2). The game then enters a "waiting for players" lobby state (figure 3). At any time after this, the user may start the game session.

### **Join game**

Prompts the user for a name (figure 4). The user is then presented with a list of network games that he can join (figure 5). The user may then select a game to join, upon which he enters the lobby and waits for the game to start (figure 5).

### **Singleplayer**

Let the user start a singleplayer game session (figure 6).

### **Help**

Presents the user with help documentation for the game (figure 7).

### **Exit**

Exits the game.

Once in a game session, the user can access the menu by pressing "Escape" on his keyboard.

## Functionality description

During the game, the user can control the falling pieces by moving them left or right with the corresponding arrow keys, accelerate downward movement with the arrow down key, or rotating them by pressing the up arrow. The numbers 1 through 3 can be used to activate the corresponding powerups. The user can also see the names of other users and the team's score, in the top left corner.

Control of a piece ends when the piece reaches the bottom of the board or on top of another fixated brick. Bricks cannot intersect each other. If two bricks collide, they will either be removed with a penalty to the score or be moved away from each other, depending on how long the players try to force them together.

If a row is completely filled with bricks, that row will be removed resulting in all the above bricks falling down until they reach the bottom or a fixated brick. A player that completes a row with one or more powerup bricks will receive those powerups unless his powerup stack is full (figure 6). If the non completed rows stack up to the top of the screen, the game session ends.

## Forms

### Main menu

[Button]	Host game; go to <i>Host game</i>
[Button]	Join game; go to <i>Join game</i>
[Button]	Singleplayer; go to <i>Game session</i>
[Button]	Help; go to <i>Help</i>
[Button]	Exit

References functional requirement 6.1.1 #6

Accessed at application startup

### Host game

[Text field]	Nickname
[Text field]	# of players
[Checkbox]	Private?
[Button]	Create game; go to <i>Host game – waiting for players</i>
[Button]	Back; go to <i>Main menu</i>

References functional requirement 6.1.2 #8 and #9

Accessed from *Main menu*

### Host game - waiting for players

[List]	Player list
[Chat area]	Chat
[Button]	Launch game; go to <i>Game session</i>
[Button]	Back; go to <i>Main menu</i>

References functional requirement 6.1.2 #8, #9 and #11

Accessed from *Host game*

### Join game

[Text field]	Nickname
[Button]	Find games; go to <i>Join game – game list</i>
[Button]	Back; go to <i>Main menu</i>

References functional requirement 6.1.2 #10

Accessed from *Main menu*

### Join game – game list

[List]	Game list
[Button]	Join game; go to <i>Join game – waiting for players</i>
[Button]	Back; go to <i>Join game</i>

References functional requirement 6.1.2 #10

Accessed from *Join game*

### Join game – waiting for players

[List]	Game list
[Chat area]	Chat
[Button]	Back; go to <i>Join game - game list</i>

References functional requirement 6.1.2 #10 and #11

Accessed from *Join game – game list*

### **Game session**

[Text display] Score

[List] Player list

[List] Powerup list

References functional requirement 6.1.1 #1 through #4

Accessed from *Join game – waiting for players*, *Host game – waiting for players* and *Main menu*

### **Help**

[Text display] Help document

[Button] Back; go to *Main menu*

References functional requirement 6.1.1 #5

Accessed from *Main menu*

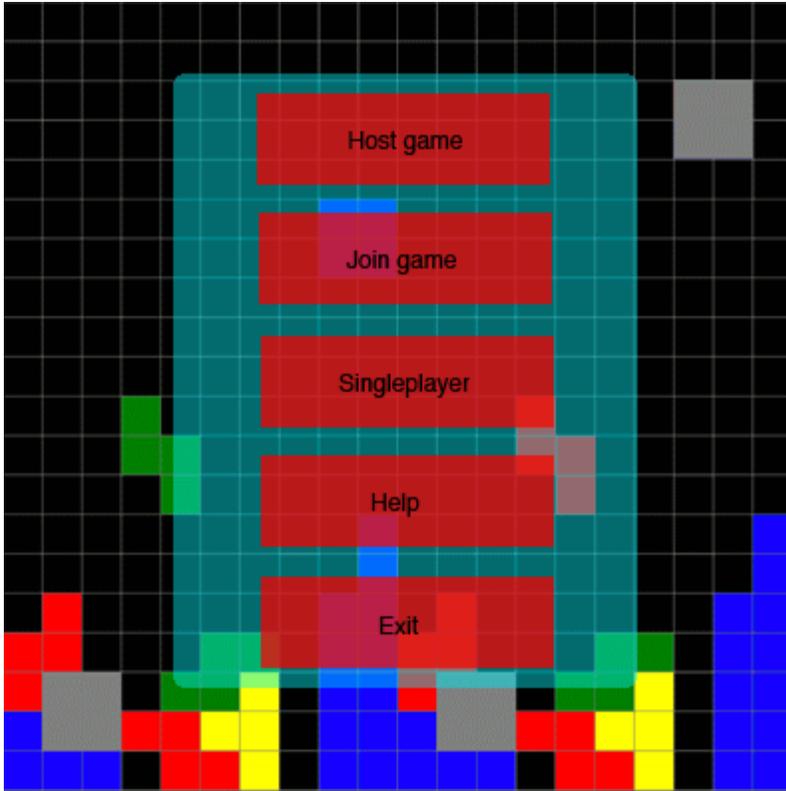


Figure 1

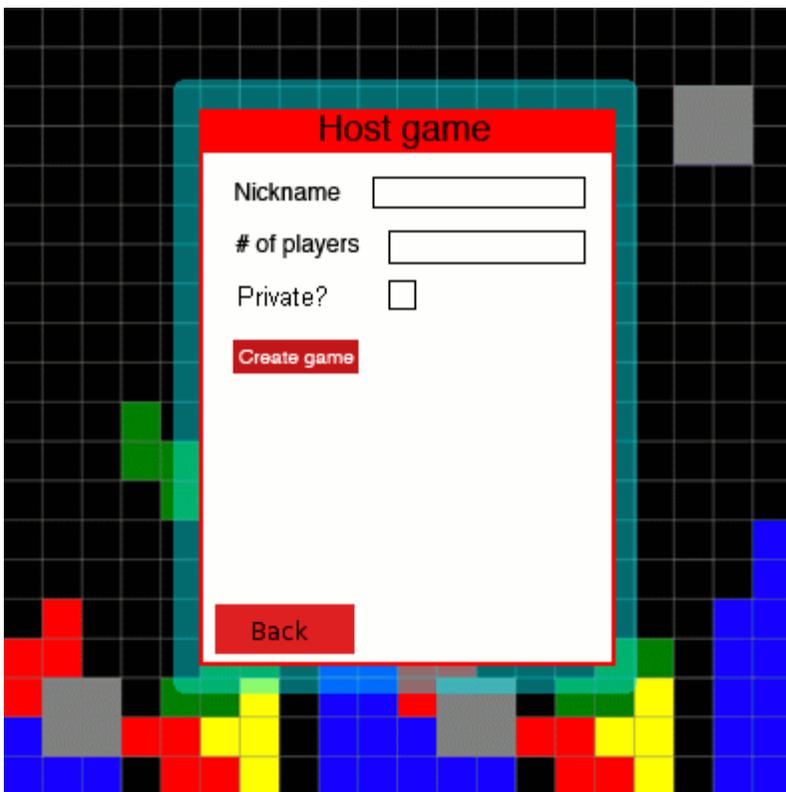


Figure 2

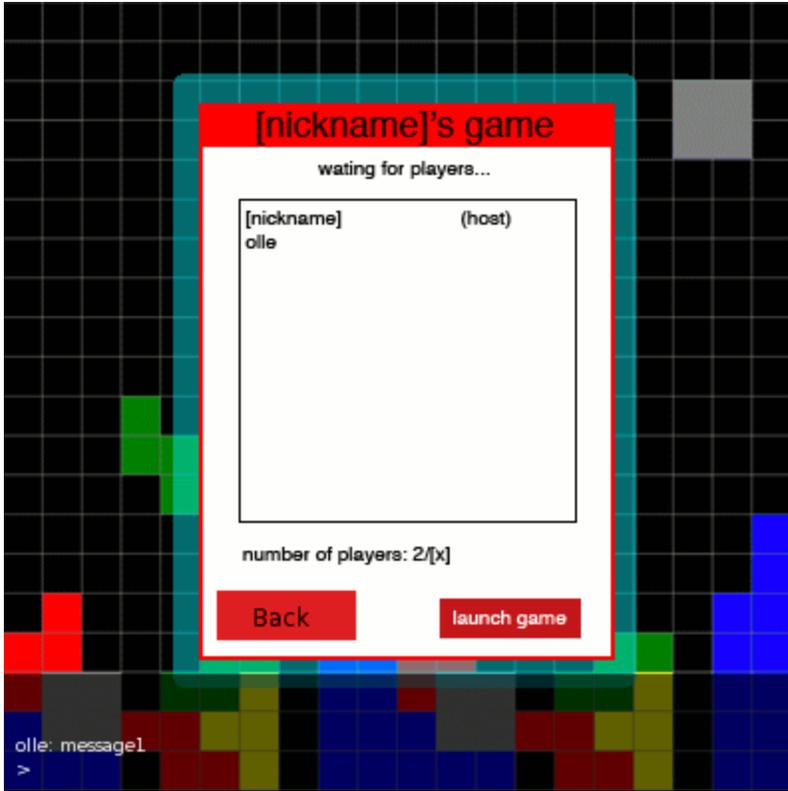


Figure 3



Figure 4

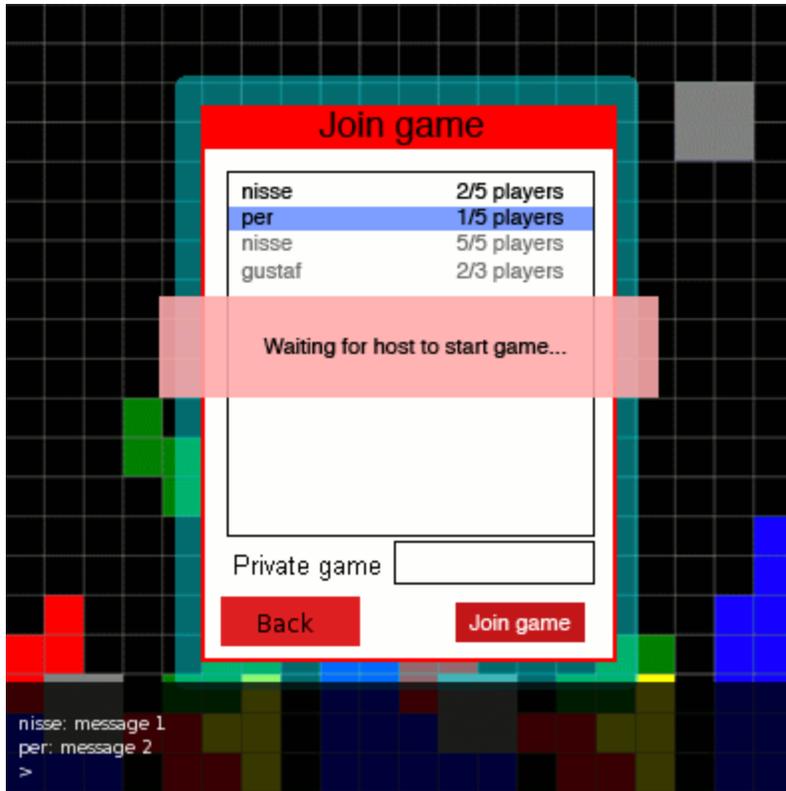


Figure 5

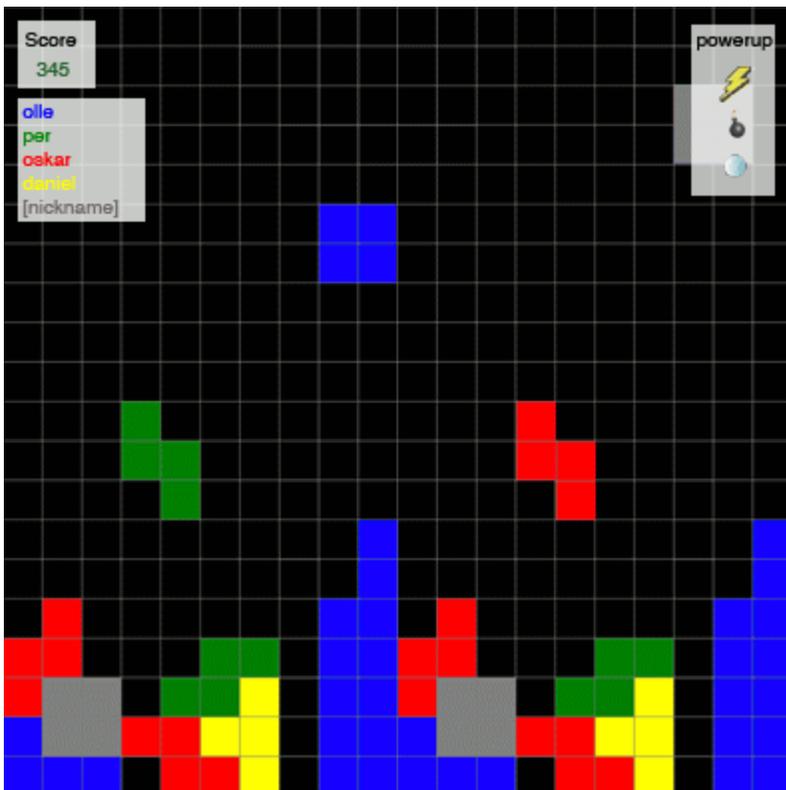


Figure 6



Figure 7