Puzzle Game Collection Project - User Guide

NatsuYuki

03.01.2022

Contents

1   Main Menu

To start the game, please run the "Puzzle Game Collcetion.exe" file from within the same folder as this document.

Upon running the game, you will be presented with a menu which we will refer to from now on as the "Main Menu". In front of you there will be 7 buttons, detailed below.

- Minesweeper - this will redirect you to the Minesweeper menu. Further explanations regarding both the game and its menu are available in the Minesweeper section;

- 2048 - this will redirect you to the 2048 menu. Further explanations regarding both the game and its menu are available in the 2048 section;

- Battleships - this will redirect you to the Battleships menu. Further explanations regarding both the game and its menu are available in the Battleships section;

- Klondike Solitaire - this will redirect you to the Klondike Solitaire menu. Further explanations regarding both the game and its menu are available in the Klondike Solitaire section;

- Sudoku - this will redirect you to the Sudoku menu. Further explanations regarding both the game and its menu are available in the Sudoku section;

- Settings - allows you to change audio and display settings. Further details added below;

- Quit - quits the entire game and returns you to your Desktop.

The "Settings" button will redirect you to another menu with 3 options, detailed below.

- Audio - redirects you to a menu with two sliders labelled BGM (background music) and SFX (sound effects) and with a button "Back" which brings you back to the Settings menu. The two sliders control the BGM, respectively the SFX volumes, with 100% being the maximum value and 0% being muted;

- Display - redirects you to a menu with two dropdown menus labelled Display Mode and Display Resolution and with a button "Back" which brings you back to the Settings menu. The two menus control the display mode (fullscreen, fullscreen borderless and windowed), respectively the display resolution (from 800 X 600 to 1920 X 1080);

- Back - redirects you back to the Main Menu.

Finally, there's the Username section, where you can input your name for the Highscores Table. This function, as well as the scoring for each game, will be detailed in the Highscores Section.

2 Minesweeper

2.1 Menu

Upon pressing the Minesweeper button from the Main Menu, you will be redirected to the Minesweeper menu, containing 4 buttons, detailed below.

- New Game - redirects you to another menu, detailed below;

- Settings - click anywhere on this line to see the explanation for Settings from here;

- Back to Main Menu - returns you to the Main Menu;

- Quit - quits the entire game and returns you to your Desktop.

Upon clicking on the "New Game" button, you will be greeted by 3 sliders and 2 buttons, detailed below:

- Width slider - you can choose the amount of tiles on the board's width, ranging from 10 to 40;

- Height slider - you can choose the amount of tiles on the board's height, ranging from 10 to 40;

- Mines slider - you can choose the amount of mines on the board, ranging from 1 to (width * height - 1) possible mines;

- Create Board button - once you have selected your preferred values, you can start the game by pressing this button;

- Back - redirects you back to the Minesweeper menu.

2.2 How to play

Upon pressing the "Create Board" button, you will be presented with a board full of covered tiles. In the following sections, we will detail the rules of Minesweeper and the controls.

2.2.1 Rules

To win, you have to reveal all tiles on the board which don't have mines hidden under them. To do this, you have a few clues and tricks.

1. A tile which does not have a bomb under can either be completely clear or have a number ranging from 1 to 8 under it. A clear tile means there are no mines next to it, while a numbered tile has as many mines as the number shows (i.e. if a tile has a 2 on it, then it has exactly 2 mines directly adjacent to it. It cannot have more or less.). *NOTE: The adjacent tiles of a given tile are not only the ones directly up, left, down and right of said tile, but also the ones directly up-left, down-left, down-right and up-right of said tile.*

2. A covered tile can have 3 states:

   (a) Default: just a regular covered tile, can be revealed, but also flagged (see below);

   (b) Flagged: a tile on which you are sure that there is a mine under. This tile can't be revealed, in this case;

   (c) Question Marked: similar to the flagged state, as in the tile cannot be revealed in this state, the only difference being that you are not quite certain of a mine being under said tile.

3. NOTE: Unless you have selected the maximum amount of mines, the first time you reveal a tile is always safe! If you have selected the maximum amount of mines, then you are not guaranteed safety.

2.2.2   Controls

To control the camera, use the mouse's scrollwheel to zoom in and out and the arrow keys or WASD keys on your keyboard to move the camera up, left, down or right.

Use the mouse to reveal a covered tile or change between its 3 possible states as such:

1. Left Click: always reveals the tile your cursor is under, unless said tile is flagged or question marked;

2. Right Click: after you have first revealed a tile, changes the state the covered tile your cursor is under is in as such:

   (a) Default -> Flagged;

   (b) Flagged -> Question Marked;

   (c) Question Marked -> Default.

3   2048

3.1   Menu

Upon pressing the 2048 button from the Main Menu, you will be redirected to the 2048 menu, containing 4 buttons, detailed below.

- New Game - redirects you to another menu, detailed below;

- Settings - click anywhere on this line to see the explanation for Settings from here;

- Back to Main Menu - returns you to the Main Menu;

- Quit - quits the entire game and returns you to your Desktop.

Upon clicking on the "New Game" button, you will be greeted by 1 slider, 1 toggle button and 2 buttons, detailed below:

- Endless toggle button - you can choose whether the game you will be playing ends upon reaching a certain number or not;

- Limit slider - you can choose the number at which the game ends, ranging from 128 to 8192 and containing only powers of 2 (unless you have ticked the Endless toggle button above);

- Create Board button - once you have selected your preferred values, you can start the game by pressing this button;

- Back - redirects you back to the 2048 menu.

3.2 How to play

Upon pressing the "Create Board" button, you will be presented with a board filled with one tile containing the number 2. In the following sections, we will detail the rules of 2048 and the controls.

3.2.1 Rules

To play, you move all tiles towards one direction directed by yourself. If the tiles hit the border of the board or a tile with a number different than the one it has, they stop as soon as they collide. However, if two tiles have the same number, then they will merge, going to the next multiple of 2 (i.e. 2 goes to 4, 16 goes to 32, 1024 goes to 2048 etc). With each movement, a tile numbered either 2 or 4 appears on a random free location (NOTE: the first tile you start with is always numbered 2).

If all the tiles on the board are occupied and you cannot merge any tiles (in other words, you run out of moves), you lose the game.

To win (only possible if Endless is ticked off), you need to have a tile on the board with the same number as the one you have selected on the Limit slider before starting the game.

3.2.2 Controls

By pressing on any of the arrow keys, you will be moving all tiles in the direction corresponding to the arrow key you pressed.

4 Battleships

4.1 Menu

Upon pressing the Battleships button from the Main Menu, you will be redirected to the Battleships menu, containing 4 buttons, detailed below.

- New Game - redirects you to another menu, detailed below;

- Settings - click anywhere on this line to see the explanation for Settings from here;

- Back to Main Menu - returns you to the Main Menu;

- Quit - quits the entire game and returns you to your Desktop.

Upon clicking on the "New Game" button, you will be greeted by 3 buttons, detailed below:

- VS. CPU button - starts a match in which Player 2 is controlled by the CPU;

- VS. Human button - starts a match in which Player 2 is controlled by a human (locally);

- Back - redirects you back to the Battleships menu.

4.2 How to play

Upon pressing either the "VS. CPU" or "VS. Human" button, you will be presented with 2 boards and 5 ships below. On the bottom-left, you will always see the current player's turn (note that on most PCs the CPU's turn flashes by so quickly that you won't really notice when it's their turn).

The game has two phases: the Preparation Phase, where players must place their ships before the battle, and Battle Phase, where the players take turns guessing there the enemy's ships may reside and try to sink the entire enemy's fleet before theirs is sunk instead.

A player's fleet consists of 5 ships: 1 of size 2, 2 of size 3, 1 of size 4 and 1 of size 5.

4.2.1 Rules

These are the rules, based on the current phase of the game:

1. Preparation Phase: players take turns placing each one of their 5 ships wherever they see fit. All ships must be placed before they may confirm their positions and concede the turn to the next player. Once both players have placed their ships, the Battle Phase commences;

2. Battle Phase: players take turns firing at the opposing side's board, guessing where their ships may hide. If a player guesses correctly, then they are shown a tick to resemble their success. Otherwise, if no ship lies where they guessed, a cross is displayed instead.

The game is over once one player's fleet is completely sunk.

4.2.2　Controls

Here are the controls, based on the current phase of the game:

1. Preparation Phase:

   - Number 1 - selects the ship of size 2;
   - Number 2 - selects the first ship of size 3;
   - Number 3 - selects the second ship of size 3;
   - Number 4 - selects the ship of size 4;
   - Number 5 - selects the ship of size 5;
   - Arrow Up - moves the currently selected ship up;
   - Arrow Down - moves the currently selected ship down;
   - Arrow Left - moves the currently selected ship left;
   - Arrow Right - moves the currently selected ship right;
   - R - rotates the currently selected ship vertically or horizontally;
   - P - places the currently selected ship;
   - Enter/Return - confirms the positioning of all ships and concedes the turn to the next player.

2. Battle Phase:

   - Left Clicking on a non-hit tile: causes that tile to be hit and display whether or not you hit a ship.

5　Klondike Solitaire

5.1　Menu

Upon pressing the Klondike Solitaire button from the Main Menu, you will be redirected to the Klondike Solitaire menu, containing 4 buttons, detailed below.

- New Game - redirects you to another menu, detailed below;

- Settings - click anywhere on this line to see the explanation for Settings from here;

- Back to Main Menu - returns you to the Main Menu;

- Quit - quits the entire game and returns you to your Desktop.

Upon clicking on the ”New Game” button, you will be greeted by 2 buttons, detailed below:

- Deal Cards button - allow the cards to be dealt and for the game to begin;

- Back - redirects you back to the Klondike Solitaire menu.

5.2   How to play

The cards have the following defining traits:

1. a suit, which can be:

    - Hearts;
    - Diamonds;
    - Clubs;
    - Spades.

2. a number:

    - A (Ace): 1;
    - 2 (Two): 2;
    - 3 (Three): 3;
    - 4 (Four): 4;
    - 5 (Five): 5;
    - 6 (Six): 6;
    - 7 (Seven): 7;
    - 8 (Eight): 8;
    - 9 (Nine): 9;
    - 10 (Ten): 10;
    - J (Joker): 11;
    - Q (Queen): 12;
    - K (King): 13;

The board is split in several piles, as such:

1. the draw pile - the top-left-most pile, where all cards not initially dealt in the tableau are placed;

2. the waste pile - the pile to the immediate right of the draw pile, where drawn cards are placed;

3. the tableau - has 7 piles, all placed directly below of the draw, waste and foundation piles;

4. the foundation - has 4 piles, placed one next to each other on the same row as the draw and waste piles, with a small space between the waste pile and the first foundation pile.

The aim of the game is to move all cards from the tableau and waste piles to the foundation. Each game, cards are dealt in the following fashion: the deck is shuffled several times, then we place one card in the first tableau pile, 2 in the second and so on, revealing only the top-most card in each tableau pile. The rest of the cards are moved to the draw pile. The aim of the game is to move all cards to the foundation piles. All the legal moves are detailed further below.

5.2.1 Rules

When moving cards within the tableau, there is no limit to the amount of cards you can move at once, however, the following rules are in place:

1. You cannot move any face-down card;

2. The selected card and target card must be of alternating colors (Hearts and Diamonds are red, Spades and Clubs are black);

3. The selected card's number must be one lower than the target card's number (the number corresponding to each card is detailed earlier in the How to Play section);

4. If the pile is empty, then the selected card must be a King.

When moving cards to the foundation, you can only move one card at a time and the following rules are in place:

1. You cannot move any face-down card;

2. The selected card and target card must be of the same suit;

3. The selected card's number must be one higher than the target card's number (the number corresponding to each card is detailed earlier in the How to Play section);

4. If the pile is empty, then the selected card must be an Ace.

If at any point you have no face-down cards on the board, then a button will appear which offers to solve the board for you, as all that's left is moving all the cards to the foundation. Note that this button only moves every card to the foundation, and thus some points can be lost (moving a card from the waste pile to the tableau yields +5 points, therefore you lose 5 possible points in total for each card in the waste pile upon clicking on the button). The game's scoring is detailed here.

5.2.2 Controls

By clicking on a card, you select it. With a card selected, click on an empty pile (from the tableau or foundation) or another card from the tableau or foundation to have it moved alongside all cards below it, if that move is allowed. Otherwise, your card will be deselected. Click on the draw pile with no card selected to draw another card and move it to the waste pile.

6 Sudoku

6.1 Menu

Upon pressing the Sudoku button from the Main Menu, you will be redirected to the Sudoku menu, containing 4 buttons, detailed below.

- New Game - redirects you to another menu, detailed below;

- Settings - click anywhere on this line to see the explanation for Settings from here;

- Back to Main Menu - returns you to the Main Menu;

- Quit - quits the entire game and returns you to your Desktop.

Upon clicking on the "New Game" button, you will be greeted by 3 buttons, detailed below:

- Create 6x6 Board button - starts up a Sudoku board with 6 3x2 boxes arranged in a 6x6 board;

- Create 9x9 Board button - starts up a Sudoku board with 6 3x3 boxes arranged in a 9x9 board;

- Back - redirects you back to the Sudoku menu.

6.2   How to play

Upon pressing the "Create 6x6 Board" or "Create 9x9 Board" button, you will be presented with a board filled with some numbers in random spots. You must complete this board to win the game.

6.2.1   Rules

You must fill the board with numbers from 1-to-9 such that:

1. You don't have a duplicate number in the same row;

2. You don't have a duplicate number in the same column;

3. You don't have a duplicate number in the same 3x3 box.

6.2.2   Controls

By clicking on a tile, you select it. By pressing on a number on the top side of your keyboard, you insert a number on that tile. However, you cannot change a number from a pre-determined tile, so keep that in mind.

7   Highscores and Scoring

Upon finishing any game other than Battleships, you can check out the Highscores. Here is how every game's scoring works:

- Minesweeper - the amount of mines * 100 - the amount of seconds taken to reach game over;

- 2048 - the highest number you reached * 100 - the amount of moves made - the amount of seconds taken to reach game over;

- Klondike Solitaire - this game's scoring is calculated as the game progresses, and thus, its scoring is detailed here;

- Sudoku - the width/height of the board * 10000 - the amount of seconds taken to solve the board.

7.1 Klondike Solitaire Scoring

Points are added when:

- You move a card to the foundation: +10 points;

- You move a card from the waste pile to the tableau: +5 points;

- You turn over a face-down card: +5 points.

Points are subtracted when:

- You empty the draw pile and then fill it back up with the cards from the waste pile: -100 points;

- You move a card from the foundation to the tableau: -15 points.

Note that the amount of points cannot be negative.