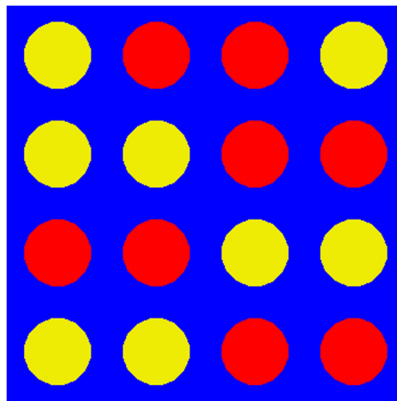


# Connect4



**RELEASE 1.0**  
**USER'S GUIDE**

## 1. Introduction

Connect4 is a four-in-a-row videogame. Its novelty is the possibility to exploit the power of Fairy Stockfish for the moves computed by the program. Fairy Stockfish is a multi purpose engine derived from the famous Stockfish, engine written for chess.

Connect4 is released as freeware and can be distributed in every non-commercial form.

## 2. Disclaimer

**THIS SOFTWARE IS PROVIDED "AS IS", WITH NO EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT SHALL THE AUTHOR BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES INCLUDING BUT NOT LIMITED TO THE LOSS OF DATA, OR PROFITS; YOU USE IT AT YOUR OWN RISK.**

### 3. Installation

- 1) Connect4 compressed archive must be unpacked in any directory. No need of any setup, it is portable.
- 2) To play against the computer, an engine is needed, who can be downloaded from this location:

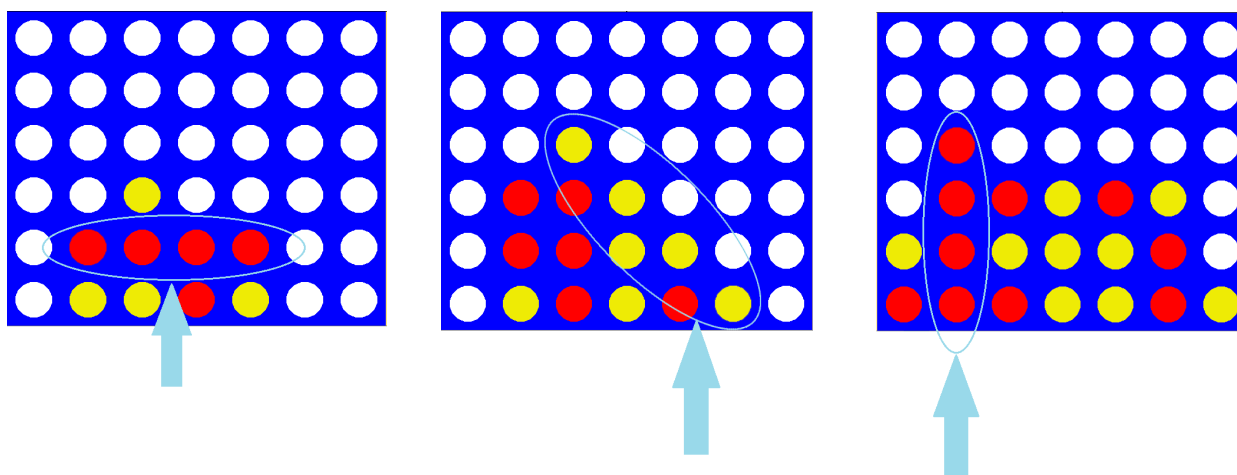
[https://github.com/fairy-stockfish/Fairy-Stockfish/releases/download/fairy\\_sf\\_10\\_2/fairy-stockfish-largeboard\\_x86-64.exe](https://github.com/fairy-stockfish/Fairy-Stockfish/releases/download/fairy_sf_10_2/fairy-stockfish-largeboard_x86-64.exe)

That executable file must be placed into "Engines" folder.

**WARNING: "Engines" directory must always be present into installation directory.**

### 4. Game rules

Connect 4 is a game between two opponents. There is a grid with 6 rows and 7 columns where they must insert tokens (red for one player - who moves first - and yellow for the other player) alternatively. Everytime a token is played along a column it drops from the top and finish over the others previously inserted in that column, constituting a stack. **The aim of the players is to place 4 tokens of their color in a line horizontal, vertical or diagonal.** Some example of winning combinations are shown:

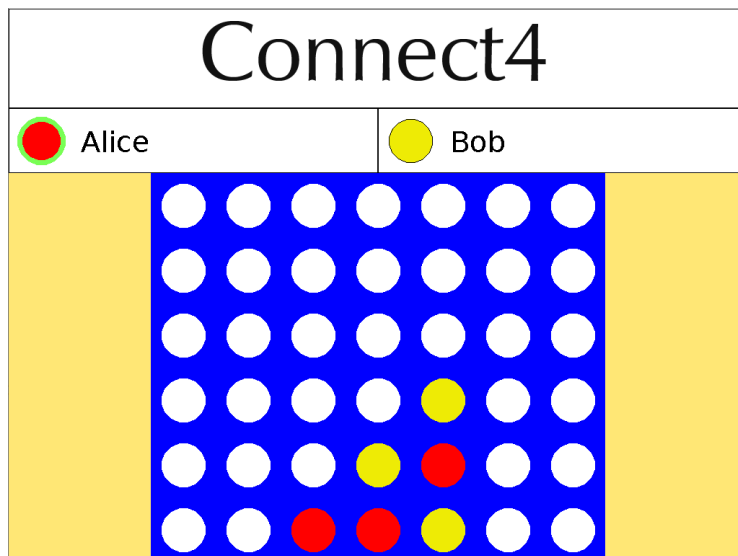


If the grid is filled and there aren't lines of 4 equal tokens long, game ends without a winner.

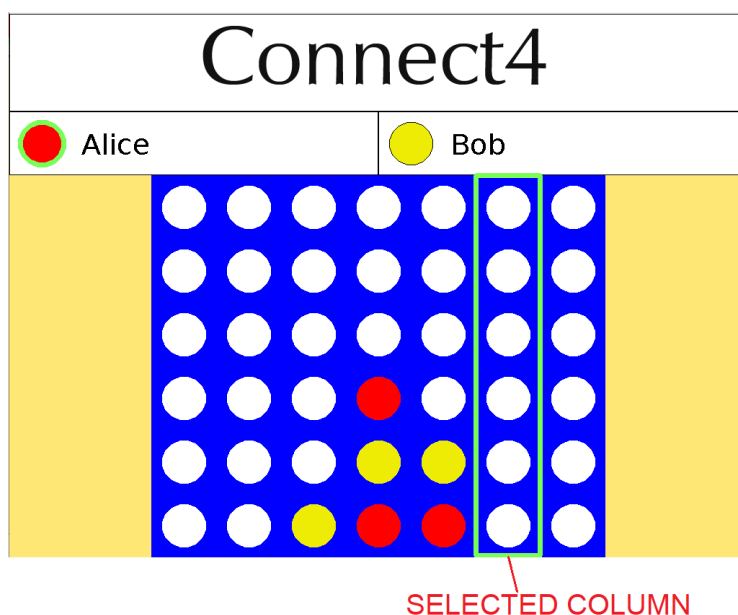
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## 5. General usage

Connect4 must be launched by double-clicking its icon. This is the main window:



To execute a move drag pointer on the column where to drop a token (an aqua rectangle will mark the actual column selected), then click left mouse button:

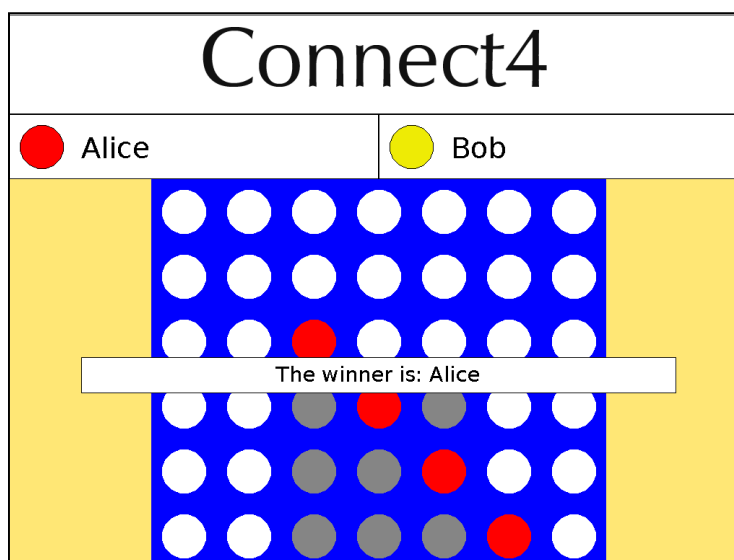


To know which color must move, look at tokens near player names. Player who has the move will have a tick green border around its token. In the previous picture, the first player (named "Alice") has the move. If no green border is present, it means that no game is playing and "New game" must be selected to start.

Is possible to play human-against-human games with no engine installed. In this case, Connect4 is only a supervisor who checks if a player has won the game. To play against computer, see paragraph 6.2 "First player/Second player" later in this document.

When it is the computer's turn, a message 'Thinking...' will appear over the grid, then the processed move is executed.

When a player wins by placing four tokens in a row, that tokens group will flash for some seconds and the other tokens became gray to evidence winning combination, and a message communicating the winner will appear:



## 6. Game menu

### 6.1 New game

Empties the grid and starts a new game.

### 6.2 First player/Second player

Is possible to choose who plays for the first player (red tokens) and second player (yellow tokens) by selecting options provided into "First player" and "Second player" submenus. Them are identical in their options, who are:

- **Human:** Select the human to play with that color.
  - **Enter name...:** If a human player plays with that colour, this option allows to enter its name. A requester will appear where enter it.
  - **Computer:** Select the computer to play with that color. In order to play against the computer, an engine must be chosen between them contained into directory "Engines" (Connect4 doesn't contain any playing algorithm, it's only an interface). If no engine is found, a message error will be shown. To know how install an engine, read chapter 3, "Installation". Is possible to choose for the two opponents two different engines and make them play one against the other.
  - **Select engine...:** Selects an engine from those installed. A list requester will appear from which to select. After selection, a message will appear showing the name of the engine and its authors.
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- **Beginner, Easy, Intermediate, Advanced, Master:** Options who selects computer's strength, with a choice between five levels. The difficulty level will be indicated after the engine's name with a "L" letter followed by a number from 1 to 5.

### 6.3 Stop autoplay

When two engines are playing one against other, this option stops the game and starting from that moment both colors will be moved by an human player. **Note:** Connect4 and the engines are uncoupled in their execution. When selecting "Stop autoplay" while an engine is computing its move, user must wait a few seconds because the interface must play the computed move (Connect4 can't stop the engine launched in background).

### 6.4 Swap sides

This option exchanges players taking each the opposite color. If both colors are moved by chess engines, this option swaps their settings also.

### 6.5 Take back

Cancel the last move played, so it's possible to change it. If the user is playing against the computer, this will cancel the last computer's move also.

### 6.6 Suggest move

The engine previously chosen compute a move for the user in a few seconds, then the interface shows this move by flashing the column. If no engine was selected before, Connect4 will ask to choose one. Without engines installed, this option cannot work.

### 6.7 Quit: Exit from the program.

## 7. Options menu

**7.1 Animated moves:** When selected, this option show player's move with a token who drops along the column chosen. Otherwise, token reaches its position instantly, without any animation.

**7.2 Sound effects:** Activate/disable the sound effects.

## 8 Known bugs:

Using Fairy Stockfish under MorphOS version of Connect4, a warning message "*Variant template 'amazons' does not exist.*" may appear after Fairy Stockfish has computed a move. This don't causes any problem, and the user must only close Shell window when it appears.

## 9. History releases

### Version 1.0:

- Fairy Stockfish support
- Take back move
- Suggest move

## 10. Links

Connect 4 on Wikipedia:

[https://en.wikipedia.org/wiki/Connect\\_Four](https://en.wikipedia.org/wiki/Connect_Four)

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## 11. Contact

It is possible to contact the author for questions related to:

- Bugs found
- Problems with an engine that is suspected not working because Connect4 is not interfacing it correctly
- Testing of Fairy Stockfish beta versions

For each problem or bug, specify the platform and what the problem is, with one or more examples of input or actions who can reproduce that problem.

All messages can be sent to the email address [domenico.lattanzi@mailfence.com](mailto:domenico.lattanzi@mailfence.com)

## 12. About the author

Domenico Lattanzi is an IT engineer, graduate at Rome's university "La Sapienza".

Amiga software published:

<http://aminet.net/search?readme=lattanzi&sort=date&ord=DESC>

<http://os4depot.net/index.php?function=modules/sql/filesbyuploader&submitter=Domenico+Lattanzi>

<https://www.morphos-storage.net/?all=1&dev=Domenico+Lattanzi>

<https://arosarchives.os4depot.net/?function=modules/sql/filesbyuploader&submitter=Domenico%20Lattanzi>

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