Bedienungsanleitung

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Contents

1	Console		
	1.1	Start the Game	2
	1.2	The playing field	2
	1.3	Make a move	3
	1.4	How to see the beaten pieces	3
	1.5	Check, checkmate, win, draw	3
	1.6	AI	3
	1.7	Ending a game	3
2	GU	I	4
	2.1	The main menu	4
	2.2	Start the game	4
	2.3	Settings	4
	2.4		5
	2.5	Make a move	5
	2.6	Check, checkmate, win, draw	5
	2.7		6
	2.8	Ending a game	6

1 Console

Below you will find the operating instructions for the console based game.

1.1 Start the Game

When starting the programm, a game human against human can be started by entering 1 and by entering 2 a game against the AI can be started. No further steps are necessary. Then the first move can be made directly. You can find out how to do this in Section 1.3.

1.2 The playing field

The playing field is structured like a normal chess playing field and alle the upper-case letters represent white pieces and the lower-case letters represent black pieces. although the letters stand for the following pieces:

```
K: white king
Q: white queen
R: white rook
K: white knight
B: white bishop
P: white pawn

k: black king
q: black queen
r: black rook
k:black knight
b:black bishop
p: black pawn
```

```
8 r n b q k b n r
7 p p p p p p p
6
5
4
3
2 P P P P P P P P
1 R N B Q K B N R
a b c d e f g h
```

Figure 1: Chess Board Cli

1.3 Make a move

Entering a move follows a strict syntax. The first step is to specify the field on which the figure that is to be moved stands. For the referencing of a field, the common chess designations a1 to h8 are used. The corresponding markings are available for this on the edge of the playing field. (see Figure 1). This is followed by a hyphen. Finally, there is an indication of the field to be moved to. A valid entry would be a2 - a4. An invalid entry would be a2 a4, since there is no hyphen here, or a7 - a9, since a9 is not a valid field. The move is always made for the player whose turn it is. After a successful move it changes automatically. If an input is syntactically invalid, this is signaled by the output "Invalid move!" and the move is not carried out. If an input contradicts the rules of chess, this is signaled by the output "Move not allowed!" and the move is not made. A valid entry is again confirmed to the player by outputting the corresponding entry with an exclamation mark in front of it.

1.4 How to see the beaten pieces

If you enter "beaten", a list of the pieces that have already been captured is displayed.

1.5 Check, checkmate, win, draw

The fact that a player is in check, has been checkmated or the game has ended in a draw or which player has won is indicated by appropriate outputs.

1.6 AI

The AI is black by default. So that the AI's moves can be better understood, they are output via the console like player moves.

1.7 Ending a game

To end any game, the programm can simply be closed.

2 GUI

In the following you will find the operating instructions for the GUI based game.

2.1 The main menu

When the application is started, the main menu appears. Here you can start a new game against human by pressing the button human and against AI by pressing the button AI. You can read more about this under Abschnitt 2.2. The settings tab shows the settings. The settings are explained further under Abschnitt 2.3.

the - button minimize the application and The x button closes the application.

2.2 Start the game

To start a new game, you must first select an opponent respectively the game mode. You can create a game human against human by choosing the "human" button or a game against the AI by choosing a "AI" button. If you want to play a game against the AI, you must also choose a color from the popup menu "choose a color" that has the option to choose white or black. Afterwards the game will be started.

2.3 Settings

In the game window can from the settings tab "Rotate Field", "Reselect Piece", "Check Status Notification" and "Show Highlighting" be choosed. It is also possible through the "Game" tab to go back to the Main Screen.

2.4 The Field

The playing field can be seen in Figure 2.

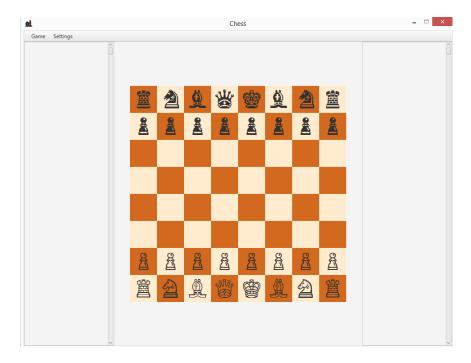


Figure 2: Chess Board GUI

On the left side is a field where the beaten figures are listed. On the right side is a history of the moves made. Below the field, notifications appear, such as which player's turn it is, whether a player is in check or which player has won.

2.5 Make a move

To move a figure you first have to select the figure you want to move with a mouse click. Then all the fields to which you can drag the figure are highlighted graphically. You can turn this off in the settings. Now complete the move by clicking on one of the highlighted fields. If you click again on the already selected figure, the selection is removed and you can choose a figure again. You can also turn this off in the settings.

2.6 Check, checkmate, win, draw

The fact that a player is in check, has been checkmated or the game has ended in a draw or which player has won will be shown with the proper notification at the bottom of the board.

2.7 AI

The AI can be white or black.

2.8 Ending a game

To end any game, the programm can simply be closed by pressing ${\bf x}$ button.