# The Knights Handbook

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# Contents

**Abstract**

This documentation describes the game of Knights version 2.6.2

# Chapter 1

# Introduction

GAMETYPE:
Board

NUMBER OF POSSIBLE PLAYERS:
One or two

Knights is a chess game. As a player, your goal is to defeat your opponent by checkmating their king.

# Chapter 2

# How to play

## 2.1 Objective

Moving your pieces, capture your opponent's pieces until your opponent's king is under attack and they have no move to stop the attack - called 'checkmate'.

If it appears you cannot win, you can play for a draw (tie). Move your pieces until you have no legal moves left and your king is not under attack - called 'stalemate'. Other forms of draws can be available depending upon the chess rules being followed for the game.

## 2.2 Starting the Game

When the program starts or the user selects the **Game** → **New** (**Ctrl+N**) menu item, a dialog is shown. In this dialog, it's possible to specify who you are playing against, your color and the time limits.
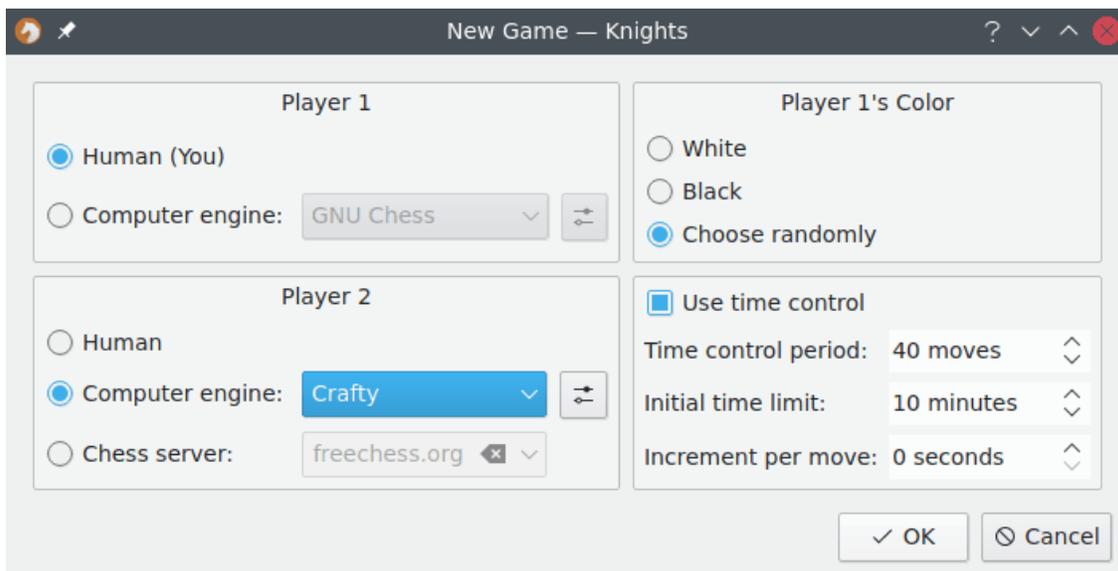


*New Game dialog*

If you wish to play against a friend on the same computer, select **Human (You)** for **Player 1** and **Human** for **Player 2**.

If you wish to play against the computer, select **Human (You)** for **Player 1** and **Computer engine:** for **Player 2**. From this drop down list choose the program you would like to play against, and make sure that the program you specify is installed on your computer and that it supports either the XBoard or UCI protocols.

If you have installed a chess engine but it does not appear in the list, click the **Configure...** button and add the engine there. For more information on this dialog see Computer Engines.

> NOTE
> Even though a program is listed in the dialog, it does not mean it is installed. Make sure you install whatever chess engine you wish to play against. You can check whether an engine is installed on your system or not in the **Chess Engines** dialog.

If you wish to play against someone over the Internet, select **Human (You)** for **Player 1** and **Chess server:** for **Player 2**. You will have to login into the server and find an opponent before you can start playing. The Free Internet Chess Server (FreeChess.org) supports guests, but you have to register in order to play games which affect your rating.

You can also watch two programs play against each other, by selecting **Computer engine:** for both players.

Similarly, you can play a computer engine against an opponent at a chess server. However, note that the chess server may have a policy regarding such play. For the Free Internet Chess Server it is located here.

The **Use time control** check box allows you to turn on an optional timer. Knights uses the standard chess time control which has three parameters inside spinboxes:

- **Time control period:** specifies the number of moves after which the **Initial time limit:** is added to the player's clock. You can disable this addition by setting the value to zero.

  > NOTE
  > This option is not available when playing on a chess server.

- The **Initial time limit:** is the amount of time the players start with.

- **Increment per move:** specifies how much time will be added to the player's clock after every move he makes. It can be safely set to zero to disable incrementing the clock.

After you press the **OK** button, the dialog will close. If you selected a player at a chess server, you will have to log in and find your opponent. Otherwise, the game will start immediately.

> NOTE
> Knights will load a default theme automatically once you start the game and you can begin playing right away.

## 2.3 The Chess Server Dialog
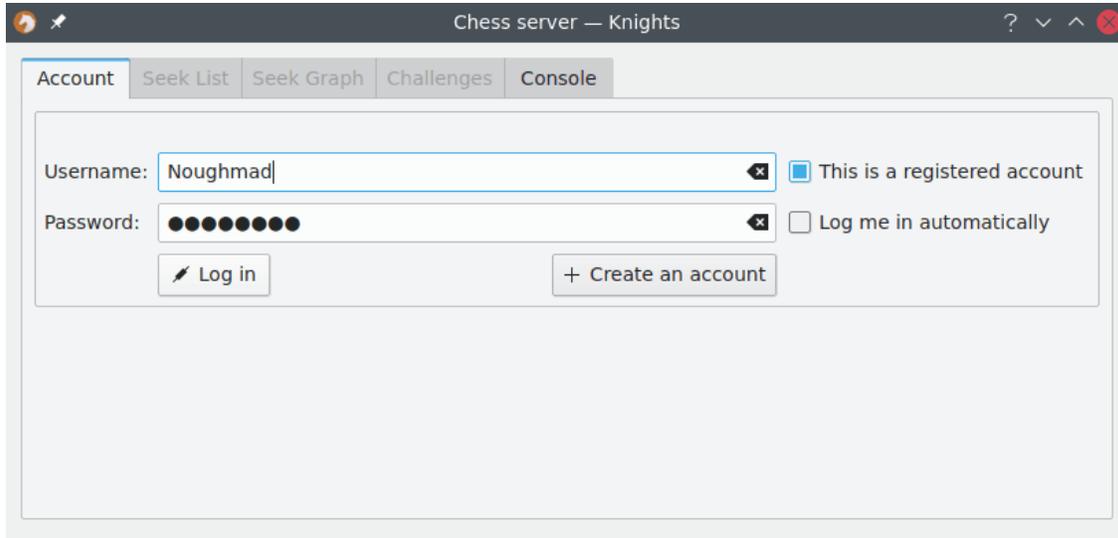


*Account tab*

If you chose to play on a chess server, you must first log in to the server. If you have an account at the server, type in your username and password, and select the **This is a registered account** check box. Otherwise, type in a username of your choice, and press the **Log in** button.

There are two ways to choose the opponent. Either you post an ad for your game (called a 'seek'), or you respond to someone else's seek.
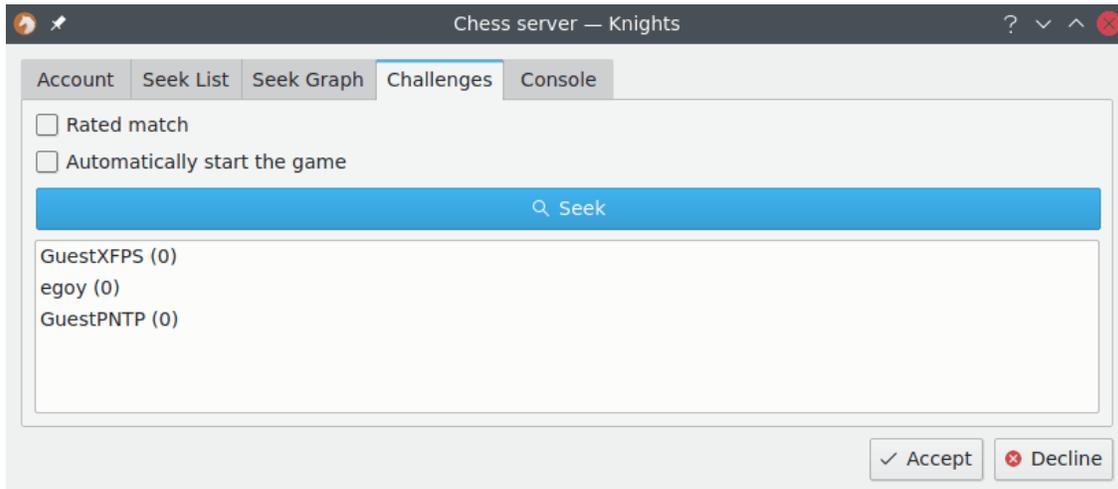


*Challenges tab*

To post your own, go to the **Challenges** tab and press **Seek** button. If you checked **Automatically start the game**, once a player has accepted your seek, the game will start immediately. Otherwise, you have to accept the challenge manually, by selecting it from the list and press **Accept** button.

*Seek List tab*

To respond to other people's seeks, use the **Seek List** or **Seek Graph** tabs. On either tab, select the seek by clicking on it and then pressing the **Accept** button.
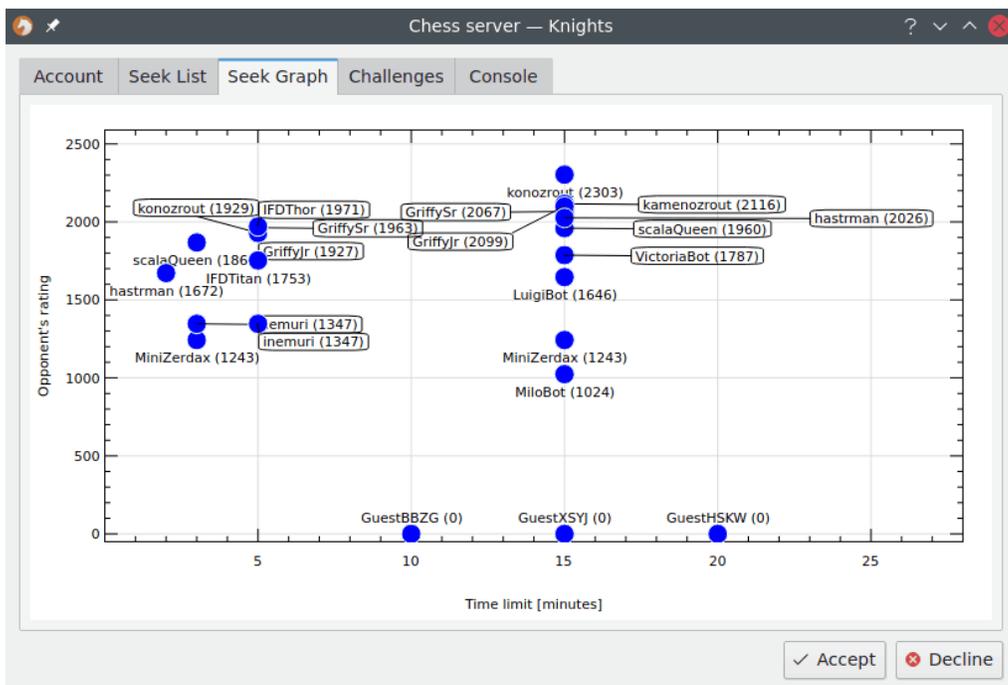


*Seek Graph tab*

The seek graph displays all currently posted seeks, arranged by opponent's rating and game duration. Clicking on a point on the graph accepts the seek.

> NOTE
> For advanced usage, Knights provides direct access to the server console. Select the **Console** tab to use it.

## 2.4 Playing the Game

Pieces are moved by clicking on them and dragging them to the desired spot. You can only move a piece if it's yours, it's your turn, and moving that piece does not put your king into immediate danger.

Knights follows the rules of standard chess, so you cannot make an illegal move.

# Chapter 3

# Game Rules, Strategies and Tips

## 3.1 Standard Rules

The main set of rules for chess are set by the World Chess Federation - FIDE. Other national and local groups may make slight modifications to the rules. Usually the major differences between rules are about timekeeping or types of draws allowed - the basic game and piece movement are the same. Knights supports standard chess and has some timing flexibility.

There are many variants to standard chess. One source has found over 2000 different variants of the game. Major variants include Fischer Random, Bughouse, Crazyhouse and Suicide. Variants have differing rules on piece capture, piece movement, ending the game and returning pieces to play. Knights does not support chess variants.

Complete rules of standard chess can be found at:

- World Chess Federation-FIDE (fide.com)
- United States Chess Federation-USCF (new.uschess.org)

Rules and general chess information can be found at:

- Wikipedia

## 3.2 Chessboard

### 3.2.1 Board Layout

A chessboard consists of 64 equal squares arranged in eight rows and eight columns. The squares are arranged in two alternating colors, white and black. Many different materials are used to make chessboards, so the lighter colored material is known as white and the darker material is known as black.

Parts of the board are known by special names:

- Rank - the eight horizontal rows of the chess board are called ranks.
- File - the eight vertical columns of the chess board are called files.
- Diagonal - a straight line of squares of the same color running at an angle from one edge of the board to another edge is called a diagonal.

- Center - the four squares found in the middle of the board are called the center.

Each individual square has a name so records of the moves of the game can be kept. Several naming systems exist, but 'algebraic notation' is the most popular and is the official system. In this system, each square is named for the row and column in which it is found. The ranks (rows) are numbered from 1 to 8 beginning with white's side of the board and moving to black's side of the board. The files (columns) are labeled by lower case letters from a to h moving from left to right based on the white player's viewpoint. The square is named by the letter followed by the number. Thus the lower left hand square is known as a1. The naming structure can be seen in the following diagram:
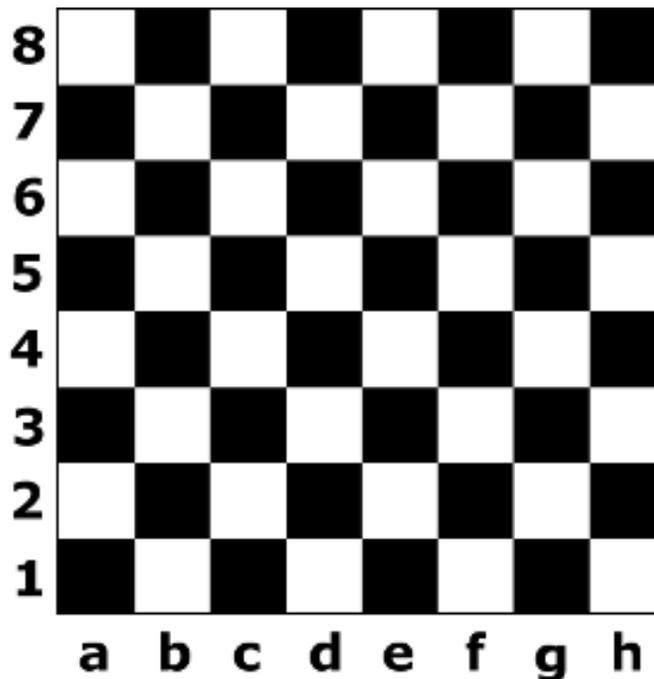


## 3.2.2   Initial Setup

The chessboard is rotated so that there is a white square in the first row at the player's right side.

The pieces are placed on the white and black side of the board in the same manner. In the first row beginning at both outer edges and moving inward, place the rook (sometimes called the castle), the knight (sometimes called the horse) and the bishop. For the two remaining squares, place the queen on the square with the same color. Place the king on the final square. When completed, the same pieces face each other across the board. On the second row place a row of pawns. The finished board then looks like the diagram below.
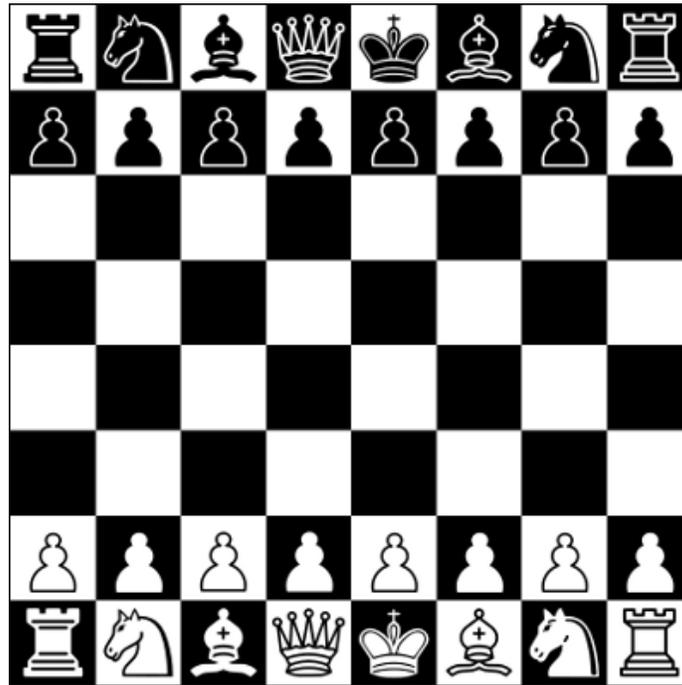
## 3.3 Piece Movement

### 3.3.1 Moving and Capturing

Chess has six types of pieces: the Pawn, Rook, Knight, Bishop, Queen and King. Each piece has its own unique way to move. There are some similarities between the moves of the various pieces. All the pieces except the knight move in a straight line - horizontally, vertically or diagonally. They cannot move past the end of the board and return on the other side. The edge of the board is a boundary which cannot be crossed. All the pieces except the knight may not jump over other pieces - all squares between the square where the piece starts its move and where it ends its move must be empty. The move may not end on a square presently occupied by a piece of the same color.

If the square where a piece ends its move contains an opponent's piece, the opponent's piece is 'captured', and it is removed from play. All the pieces may be captured except the king. The game ends on the move before the king is captured - 'checkmate'. Capturing always requires the attacking piece to land on the square of the opponent's piece while making a normal move. The only exception is for capturing a pawn en passant. You are not required to capture a piece when there is an opportunity to do so, capturing is an option. The only time that capture is required is if the king is under attack and capturing the attacking piece is the only way to stop the attack.

In the picture below, the white rook can move to the right, left, up or down (vertically or horizontally) in straight lines. It can move down and to the right any number of squares until the end of the board is reached. These squares have a green X on them. It can move a maximum of two squares to the left. The remainder of the board is blocked by a piece of the same color, in this case a white knight. The rook cannot jump over the knight to reach the end of the board. It can move only one square up before being blocked by the black pawn. It can capture the pawn by moving two squares up and landing on the pawn, since the pawn is an opposing piece (piece of a different color). This square has a red X on it. It cannot jump over the pawn to reach the end of the board. Therefore, the rook has a total of ten squares where it can go.
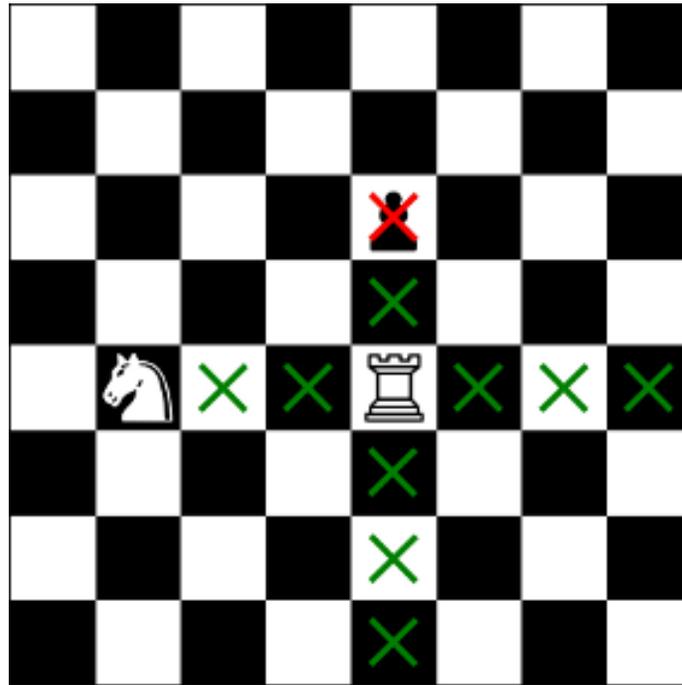
To begin the game, white moves first. The players then alternate making one move at a time. You must move on your turn, you are not allowed to pass.

### 3.3.2   Pawn

The pawn is the most numerous and the least powerful piece on the chessboard. Pawns are unusual in their movement. Generally the pawn moves forward only, one square at a time. An exception is the first time a pawn is moved, it may move forward two squares. The pawn cannot jump over other pieces; any piece directly in front of a pawn blocks its advance to that square. The pawn is the only piece that cannot move backward. The pawn is also the only piece that does not capture in the same way that it moves. The pawn captures an opposing piece by moving diagonally one square - it cannot capture by moving straight ahead.

In the picture below the lower pawn is still on its original square, so it may move one or two squares forward (indicated by the green X). It may capture by moving to the right or left at a diagonal, but only if that square is occupied by an opposing piece (indicated by the red X). Otherwise, it may not move diagonally. The upper pawn has already moved from its original square. It may move only one square forward. Likewise, it can capture moving to the left or right diagonally if the square contains an opposing piece.
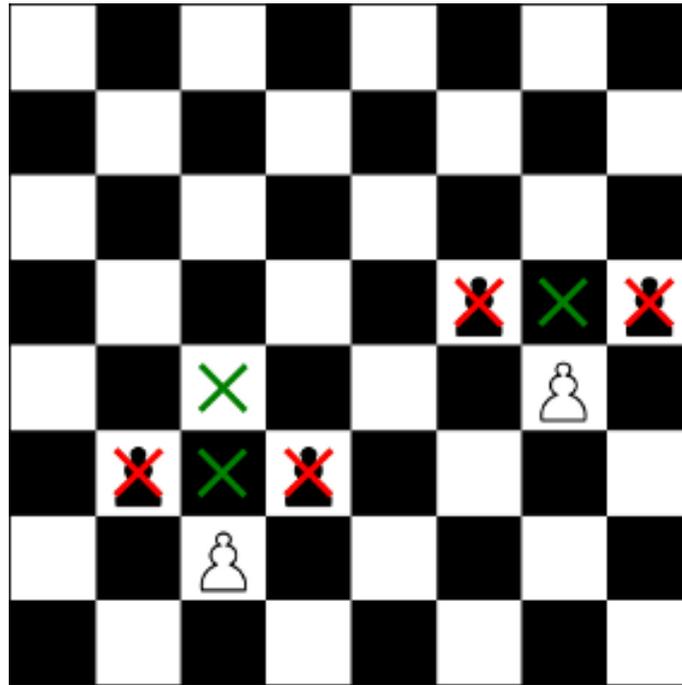
The pawn also is involved in two special moves. The first is the en passant capture where a pawn is captured on its initial two square move. The second is the pawn promotion where a pawn is promoted to another piece when the pawn reaches the other end of the board.

### 3.3.3   Bishop

The Bishop moves in a straight line diagonally on the board. It can move as many squares as wanted, until it meets the end of the board or another piece. The bishop cannot jump over other pieces. The bishop captures on the same path it moves, by landing on the square of the opposing piece. Because of the way the bishop moves, the piece always remains on the same color squares it started on. Each player begins with two bishops, one on the black-colored and one on the white-colored squares. They are frequently referred to as the 'dark-squared' bishop and 'light-squared' bishop. The bishops can also be named according to the side they begin on - king's bishop and queen's bishop.
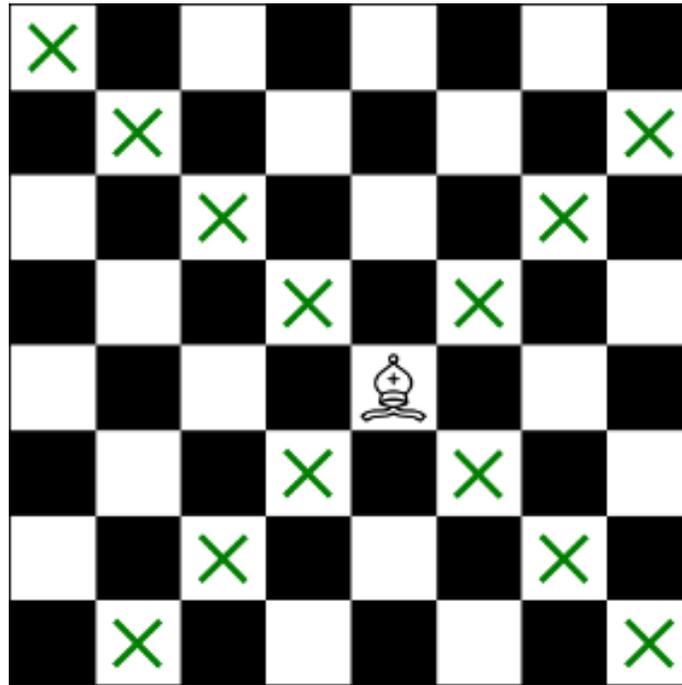
### 3.3.4 Rook

The rook moves in a straight line either horizontally or vertically through any number of unoccupied squares, until it reaches the end of board or it is blocked by another piece. It cannot jump over other pieces. The rook captures on the same path it moves, by occupying the square on which an enemy piece stands. The rook can land on any square on the board, therefore it is one of the more powerful pieces on the board.
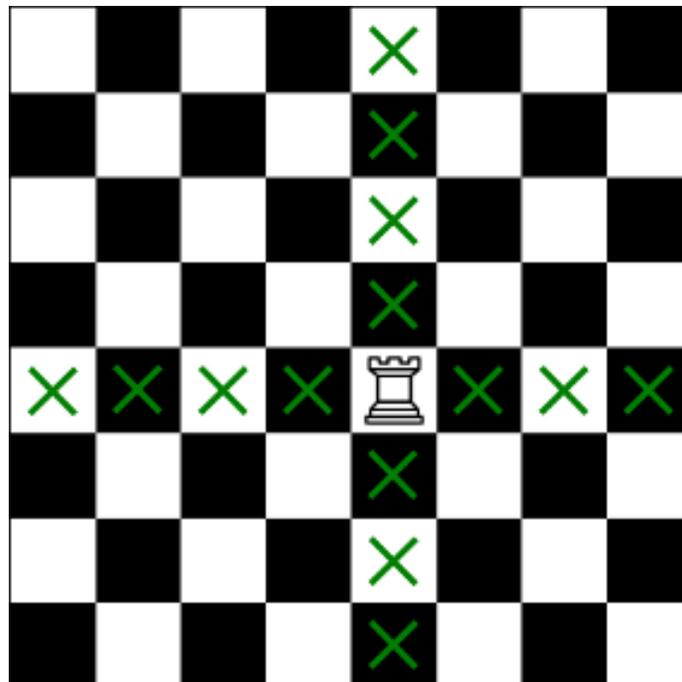
The rook is also involved in a special move. It is the castling move where a rook and the king are grouped into a defensive position.

### 3.3.5 Knight

The Knight is the most special piece in chess, having a flexibility that makes it a powerful piece. The knight is the only piece on the board that may jump over other pieces. The knight moves two squares horizontally or vertically and then one more square at a right-angle. The knight's move is shaped as an 'L'. The knight always lands on a square opposite in color from its initial square. The knight can jump over pieces of either color while going to its destination square, but it does not capture any pieces it jumps over. The knight captures by landing on the square of the opposing piece. The knight cannot land on a square occupied by a piece of the same color. Since the knight's movement is not in a straight line, it can attack a queen, bishop, or rook without being reciprocally attacked by that piece.
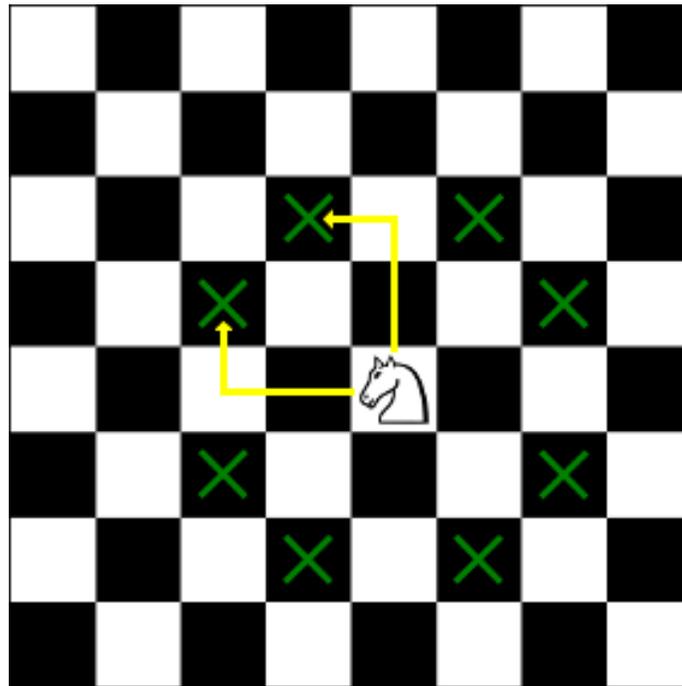


### 3.3.6 Queen

The Queen is considered the most powerful piece on the board. It can move any number of squares in a straight line - either vertically, horizontally or diagonally. The queen moves like the rook and bishop combined. Unless capturing, the queen must move to an unoccupied square; and it cannot jump over pieces. The queen captures on the same path it moves, by landing on the square of the opposing piece.
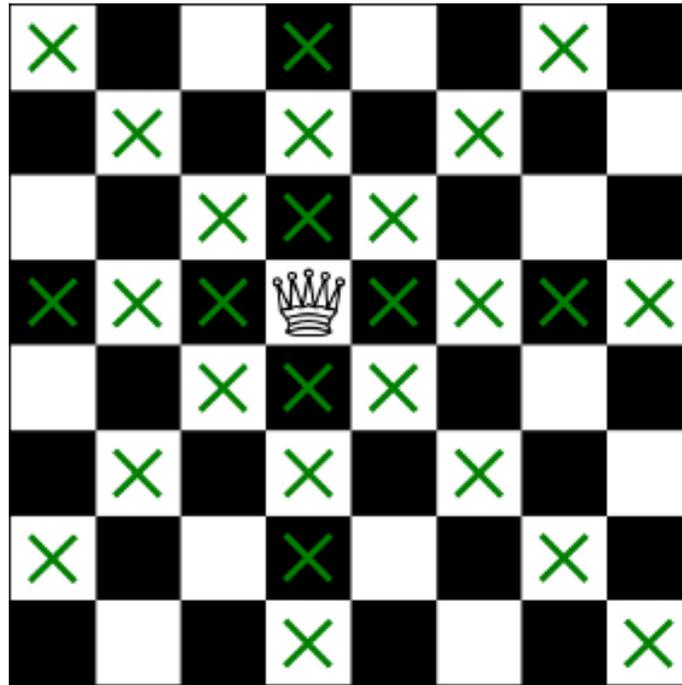
### 3.3.7 King

The King is the most important piece in chess. If the king is trapped so that its capture is unavoidable, the game is over and that player loses. The king has little mobility, so it is also considered one of the weakest pieces in the game. The king can move to any adjacent square. That is, it can move one square in any direction: horizontally, vertically, or diagonally. It cannot move onto a square occupied by a piece of the same color. The king captures another piece in the same way it moves, by landing on the square of the opposing piece. There is an additional limit on the movement of the king. The king may not move to a square which would put the king under attack by an opposing piece (called in 'check'). As a result of this limit, two kings may never stand next to each other - since moving next to the opposing king would put the moving king into check. The king can also be forced to move or capture if the king is under attack ('check') and the only way to stop the attack is to move the king.
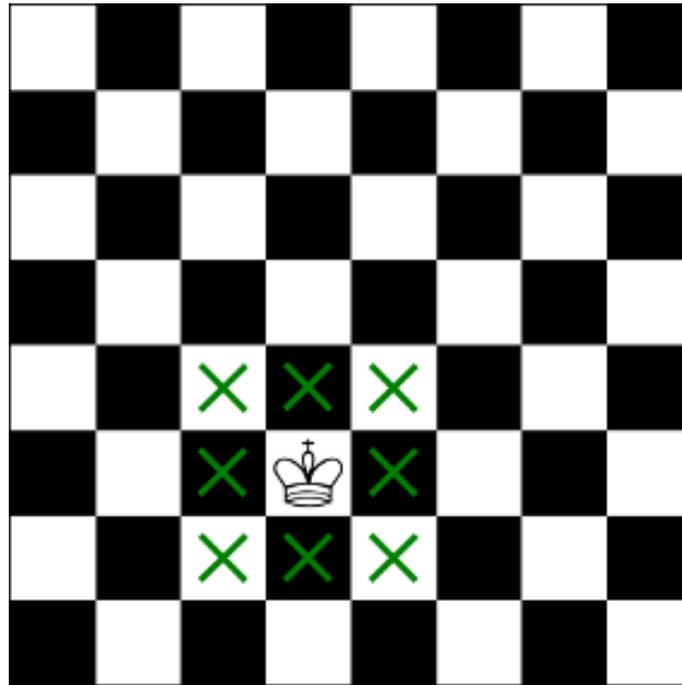
## 3.4 Special Moves

### 3.4.1 En Passant

When the rule to allow a pawn to move two squares on its first move was added, a pawn could potentially evade capture by an opponent's pawn by going past a square under attack. The en passant capture (from the French for 'in passing') was added to prevent this. The capture is made exactly as if the pawn had moved only one square forward. There are special conditions for the en passant capture:

- A pawn must move two squares from its initial position in a single move.

- An opposing pawn must be attacking the square the first pawn moved over.

- The first pawn can be captured as if it moved only one square.

- The capture can only be made at the opponent's next move. If the capture is not made, the first pawn is safe from en passant capture for the remainder of the game.

In the diagram below, the white pawn has not moved from its initial position. Its first move can be one or two squares ahead. The first square is under attack by the black pawn (pawns attack diagonally) as indicated by the red X. The white pawn moves ahead two squares, avoiding the attack. On the next move, the black pawn moves into the square where the white pawn would have moved if it could only move a single square on the first move. The black pawn successfully attacks the white pawn, and captures it 'en passant'. The white pawn is removed from play.
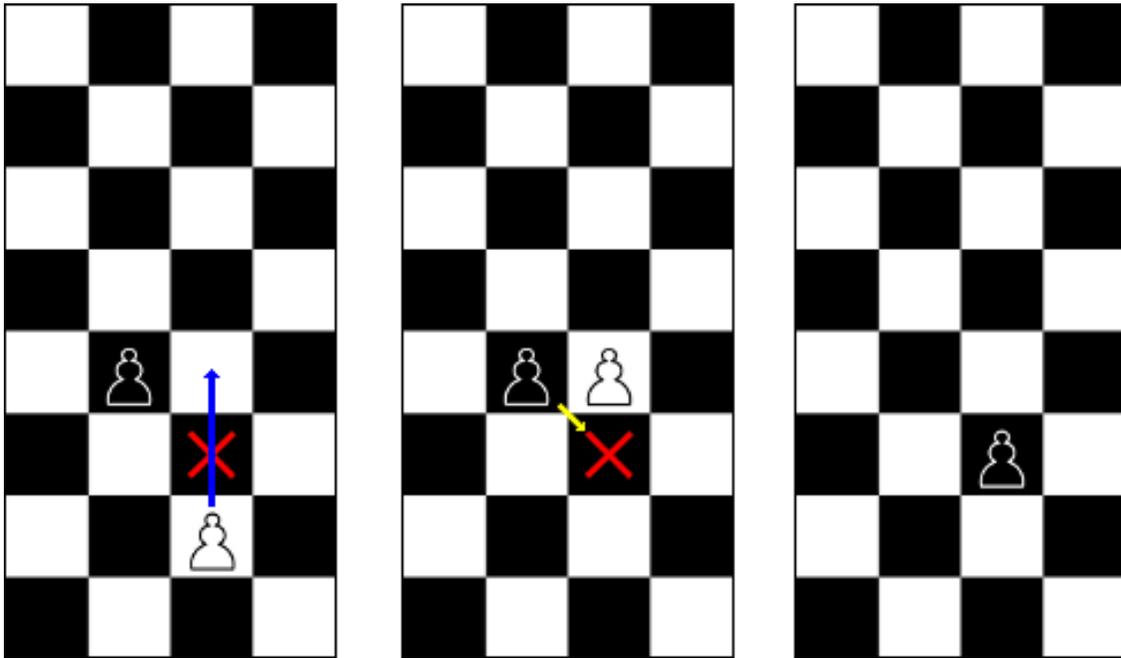
### 3.4.2 Castling

Castling uses the king and one rook, and is the only time in a game when more than one piece may be moved during a single turn. In castling a king is moved two squares towards the rook and the rook is then moved to the square on the other side of the king.

Castling has some rigid requirements:

- Both the king and the rook may never have moved during the game.

- There are no pieces between the king and the rook.

- The king is not in check.

- The king does not cross over a square that is attacked by the opponent's pieces.

- The king does not end the move on a square that is attacked by the opponent's pieces. (The castling move cannot end with the king in check.)

There are two forms of castling. One is called 'kingside castling'. It is also known as 'short castling', since it is performed to the short side of the board and the rook only has to move two squares to the opposite side of the king. It is diagramed below:
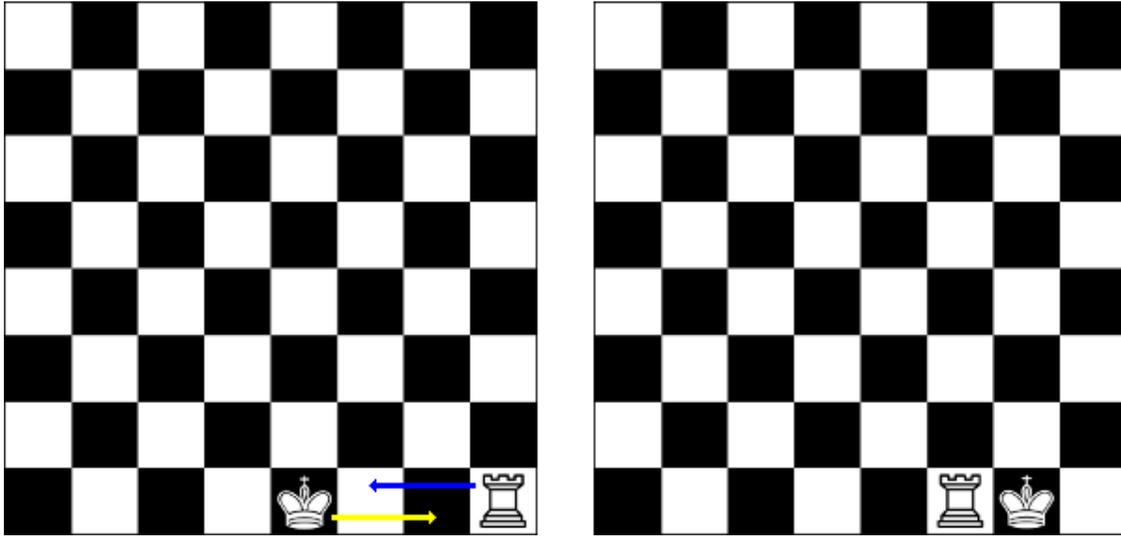
The second form of castling is called 'queenside castling', where the king moves towards the square vacated by the queen. It is also known as 'long castling', since it is performed to the long side of the board and the rook has to move three squares to the opposite side of the king. It is diagramed below:
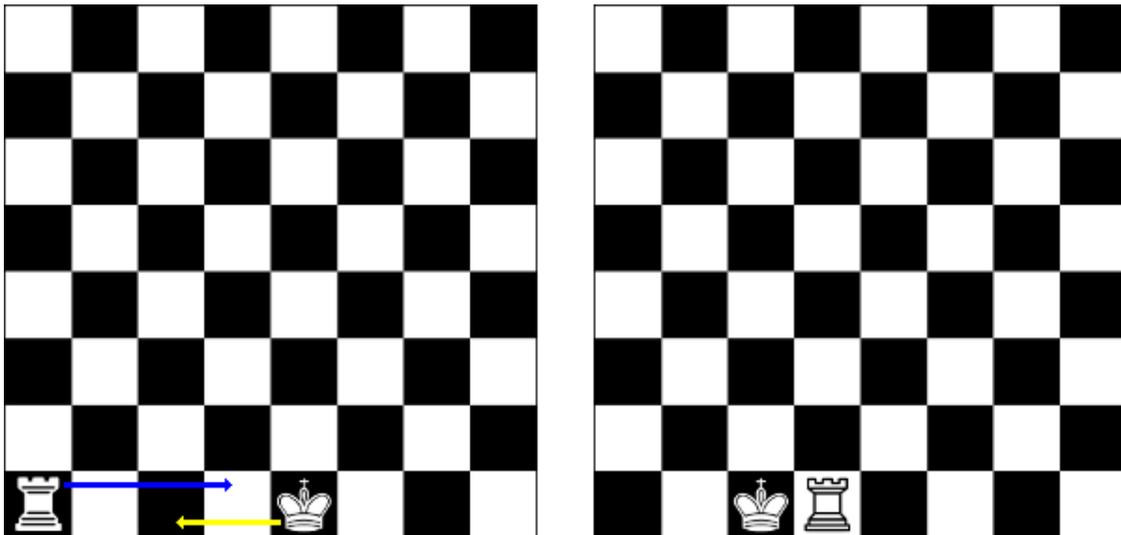




> **NOTE**
>
> In Knights to castle you move the king two squares towards the rook. Knights will complete the castling move. Do not move the rook, as Knights assumes you wish only to move the rook and not to castle.

### 3.4.3  Pawn Promotion

When a pawn has reached the other end of the board it cannot move further, since it always must move forward and not backwards. The pawn is then turned ('promoted') into a queen, rook, bishop or knight. This promotion occurs as part of the move. Usually the piece chosen is the queen, often called 'queening'. The other pieces are sometimes chosen when their movements will aid in checkmate, often called 'under promoting'. The pawn can be turned into a piece even if that type of piece is still on the board. Thus you can have two queens or three rooks, bishops or knights in play at once.

## 3.5 Game Endings

### 3.5.1 Checkmate

When a king is under attack and threatened with capture by an opponent's piece, the king is said to be 'in check'. A king must get out of check immediately. There are three possible ways to get out of check.

- Capture the attacking piece.

- Move the king away from the attack and to a safe square which is not under attack by an opponent's piece.

- Block the attack by placing a piece between the attacker and the king. (Cannot be done for an attack by a knight or pawn.)

If the king has no way to escape from the check, the position is called 'checkmate' and the game ends. The player who is checkmated loses the game. The king is never actually captured and removed from the board.

### 3.5.2 Resign

At any time during the game, a player may resign (quit). The game ends and the player's opponent wins the game.

### 3.5.3 Draw

A 'draw' is a tie between the players. There are several ways that a draw can occur.

- Stalemate - (see below)

- Threefold repetition - If the exact same position is repeated at least 3 times (not necessarily by a repetition of moves). It requires that the possible moves of all the pieces of both players are the same. If the possibility of a pawn being captured en passant has changed or the possibility to castle has changed, the position is not the same - even if the pieces are in the same locations.

- Fifty-move rule - If no piece has been captured or a pawn moved in the last fifty moves by each player.

- Impossibility of checkmate - If a position arises in which neither player could possibly give checkmate by a series of legal moves. Usually this is because there is insufficient material left to checkmate, but it is possible in other positions. Combinations with insufficient material to checkmate are:
  - king versus king
  - king and bishop versus king
  - king and knight versus king
  - king and bishop versus king and bishop with both bishops on the same color

- Time expires - If a player's time runs out and their opponent does not have mating material. (see below)

- Mutual agreement - If both players agree to draw.

### 3.5.4   Stalemate

If a player has no legal move (every possible move would put their king in check) but their king is not presently in check, the game ends in a 'stalemate'. Stalemate results in the game being a draw.

### 3.5.5   Time

If time should run out on a player before they complete the required number of moves:

- The player loses the game if the opponent has mating material.

- The game is a draw if the opponent does not having mating material.

Mating material is considered to be any group of pieces except just a king, a king and a bishop, or a king and a knight.

## 3.6   Time Controls

Many games of chess use time controls to speed the play or ensure a finish in a reasonable period. There are two main forms of time controls.

The first time control type is moves-per-time. In this type a player must complete a specified number of moves within a fixed period of time.

The second time control type is called 'sudden death'. In this type there is a fixed amount of time to complete the game, regardless of the number of moves made.

Within the time control there can be a time delay to compensate for the time lost in physically making a move. In the 'Bronstein delay' the clock does not start running at the beginning of the player's move until the delay time is over. If the move is completed before the delay time expires, no time is subtracted from the player's clock. In the 'Fischer delay' the delay time is added to the player's remaining time before the move. If the move is made before the delay time expires, the remaining delay time is kept by the player and their clock time increases. Similarly, a fixed time can be added to the player's clock after a move is completed. When time is added to the clock, the time amount is referred to as the 'time increment'.

Time controls vary widely depending upon the game, game type and any sponsor. Also during a game there may be several types of time controls joined together, with unused time added to the next time control. For all major World Chess Federation (FIDE) events the time control is 90 minutes for the first 40 moves followed by 30 minutes sudden death, with an additional 30 seconds per move beginning with the first move. The defaults on FICS (Free Internet Chess Server) are 2 minutes for the game (sudden death), plus 12 seconds time increment for each move. Many major events use 90 minutes sudden death for their time control. The US Chess Federation Blitz chess time control is 5 minutes for the game, with no time delays/increments.

# Chapter 4

# Markers

Markers are highlights of squares on the chessboard. They can be used to show legal moves for your chess piece, the opponent's previous move, or a king in check. Their color and shape depends on which theme you are using. They can be toggled on/off in the general settings section of the configuration menu.

Clicking on your piece during your turn displays a marker on every square on which that piece can be moved. The picture shows the legal moves for the white queen.



When your opponent has made a move, their last move is indicated by markers. One marker shows the initial position of the chess piece, and a second highlights the new position of the chess piece.

If the opponent's last move put your king under attack ('check'), your king and all attacking pieces are highlighted as well.



> NOTE
> Some themes may not support all types of markers.

# Chapter 5

# Game Configuration

The Knights configuration dialog allows you to change visual options, as well as select themes for Knights.

Once you are satisfied with the changes you have selected you can make the changes by either press the **Apply** or the **OK** button, located at the bottom part of the dialog. Pressing **OK** button will also close the configuration dialog.

If, however, you are dissatisfied with your changes – simply press **Cancel** button to discard the changes and close the configuration dialog. You must press the **Cancel** button before clicking **Apply** or **OK** button.

## 5.1  General

The **General** page contains options on the general appearance of Knights. Animations of the pieces and board can be enabled or modified. The animations section is visible based upon system software, and is seen only if animations are available. Turning around the board is available, allowing the Knights chess board to be flipped when used on a computer screen or stationary when used on a tablet computer as a chess board replacement. All three types of markers can be enabled or disabled. Borders around the chess board can be activated with or without algebraic chess notation by using a drop down menu.

> NOTE
> Some themes may not support markers, borders and/or notations. In this case, the configuration will have no effect on them, but will be remembered in case you change themes again.

## 5.2 Computer Engines
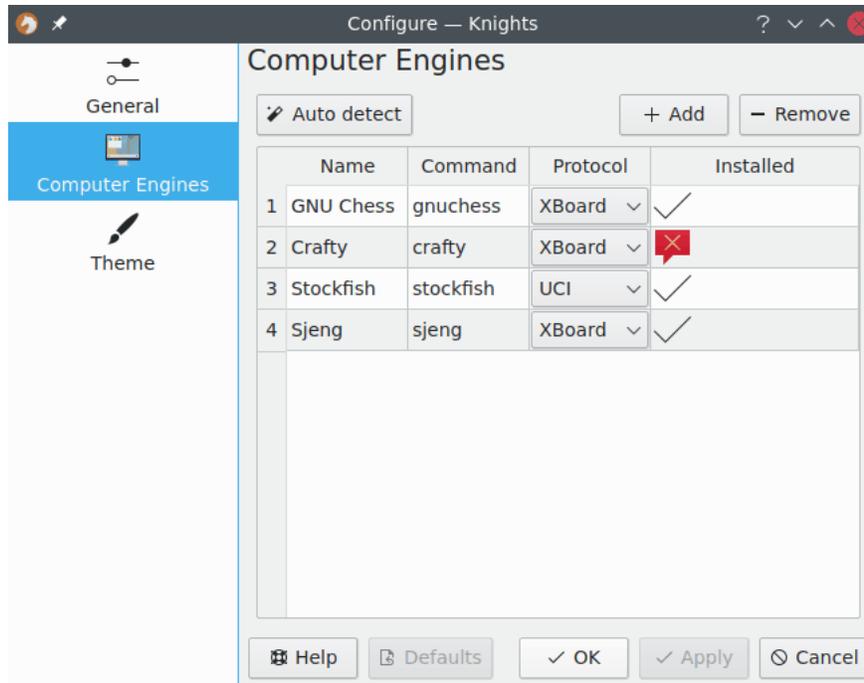


*Computer Engines page*

The **Computer Engines** page allows you to configure your computer opponents. For each engine specify the program name, the command used to launch it, and the protocol it uses. Knights supports two protocols for chess engines: XBoard and UCI.

A new engine configuration can be added by press **Add** button and entering the three options mentioned above. A symbol in the last columns tells you whether the specified program is installed on your computer or not.

## 5.3 Themes

The **Theme** page allows the selection of a theme. The theme supplies the images for the board, pieces, markers and other items. To select a new theme, choose the theme's name from the selection list. You can also download new themes from the same page, by pressing the **Get New Themes...** button. Themes are stored at kde-look.org under Knights.

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NOTE

For your convenience a quick preview screenshot will be displayed on the right hand side of the selection list as soon as you select the theme you are interested in.

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# Chapter 6

# Credits and License

Knights

- Miha Čančula miha.cancula@gmail.com - Original Author

Documentation copyright 2010, Miha Čančula miha.cancula@gmail.com

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