

# **The Kenolaba Handbook**

**Josef Weidendorfer, Philip Rodrigues, and Lauri  
Watts**



# The Kenolaba Handbook

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### **Abstract**

Kenolaba is a simple board strategy game that is played by two players.

## Chapter 1

# Introduction

Kenolaba is a simple board strategy game that is played by two players. There are red and yellow pieces for each player. Beginning from a position where each player has 14 pieces, moves are drawn until one player has pushed 6 of his opponent's pieces out of the board.

The original program was developed in 1993 for DOS and pure Xlib. For KDE there was a major rewrite.

### NOTE

If you know the board game called Abalone, you will like this program. In fact, this program was inspired by the mentioned game. Abalone is a trademark of Abalone SA, France.

## Chapter 2

# Rules of the Game

Red always moves first.

Two types of moves are allowed:

**Normal** One, two or three of your pieces in a row can be moved by one space in the 6 directions. Side moves are also allowed.

Press the left mouse button on the first piece you want to move. The piece will then be highlighted. Now drag the mouse in the desired direction. If the move is valid, the cursor will change to an arrow in that direction and all the pieces of the move will be highlighted. If this is the move you want to draw, release the mouse button.

Side moves are handled another way: For two adjacent pieces click between them and drag; for three pieces press the middle mouse button on the middle piece - if a side move is allowed for the pieces they will be highlighted. Otherwise only the middle one is highlighted and you draw a normal move.

**Pushing** You can push a maximum of two pieces of the opponent in front of your own pieces as long as the number of pieces you move is greater than the number of the opponent's pieces that you push. That means with three of your pieces you can push one or two of the opponent's and with two pieces one.

Special pushing moves are those which push a piece of the opponent out of the board. If you have pushed six of your opponent's pieces out of the board you have won.

If you still do not know what Kenolaba is all about, look at a game where the computer plays both sides. After starting Kenolaba, select Settings → Computer Play → Both and start a new game.

## Chapter 3

# Network Play

### 3.1 General Network Play

Kenolaba supports playing across a network. This allows two people to play against each other on different computers, or one person to observe the game play of another Kenolaba program. To use Kenolaba's network features, Kenolaba must be set to Network Mode by selecting Game → Network Play.

All running Kenolaba programs which are in Network Mode broadcast changed positions to each other.

To exchange positions, the Kenolaba programs have to be told about each other. If they are running on the same machine, nothing is needed (apart from switching to Network Mode). If running on different computers you have to specify the other's machine on the command line with the `-h` switch, as so:

```
%kenolaba -h SomeHostName
```

#### NOTE

For insiders: Kenolaba, when in Network Mode, listens on a TCP socket for position change commands by other Kenolaba programs. You can specify the port number with the `-p` command line switch. You need this if you want to play two different Kenolaba Network games.

#### 3.1.1 Examples

- Chris on `machine1` and Mary on `machine2` want to play against each other: Mary simply starts Kenolaba, sets Options → Computer Play to None and switches to Network Mode. Chris starts Kenolaba with

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```
%kenolaba -h machine2
```

and then does the same as Mary. Now one of the two can start the game and draw a red move. Each time the position is changed in one program, it automatically changes in the other one too.

- John wants to observe the game: He does the same as Chris, but doesn't draw a move himself.
- Two different Kenolaba Network Games will run among machines  $m_1$  and  $m_2$ . To distinguish the games, we choose port number 12345 for one. On  $m_1$  we start as usual:

```
%kenolaba
```

for the first game, and (not so usual):

```
%kenolaba -p 12345
```

for the second. On  $m_2$  we start the first game with:

```
%kenolaba -h m1
```

and the second with:

```
%kenolaba -h m1:12345
```

(The colon separates host and port as in a URL).

## Chapter 4

# Advanced Options

### 4.1 Modify Mode

You can edit the current board position by selecting Edit → Modify to put Kenolaba in Modify Mode. You can add red or yellow pieces or delete them. The status line shows the number of red and yellow pieces, the move number, the side which is to draw the next move, and whether the position is valid: An exclamation sign means no, a checked symbol yes.

#### IMPORTANT

If the position is invalid and you switch back to normal Play Mode, you can not play!  
Only valid positions can be used as a starting position for a game.

Move → Take Back and Move → Forward simply decrement and increment the move number, but don't change any pieces.

#### 4.1.1 Usage

By pressing the left or right mouse button on an empty or yellow field, you enter 'Red piece Adding' mode. By pressing the middle button on an empty or red field, you enter 'Yellow piece Adding' mode. Finally by pressing the left or the right mouse button on a red piece, or the middle mouse button on a yellow piece, you enter 'Piece Deleting' Mode. Any piece that the mouse passes over with the button pressed will be deleted.

To exit Modify Mode and re-enter Play Mode, just uncheck Modify in the Edit menu.

#### 4.1.1.1 Using the Clipboard

The current Kenolaba board can be copied to the clipboard using the Copy command in the Edit menu, and then pasted back in using Paste. This way you can copy the board positions of one Kenolaba program to another by pressing Copy in one program and Paste in the other, but this is better done with Network Mode (see above). Another usage is to save positions into a text file (using Copy and your Editor of choice) and retrieve a position later by selecting it in the editor and pasting in Kenolaba.

## 4.2 Computer Level

The computer can play at four different levels, namely:

- Easy
- Normal
- Hard
- Challenge

The harder the setting, the longer the computer searches for a move. You can interrupt the search by pressing the S key.

## 4.3 Spying

'Spying' can be turned on and off from the Settings menu, and the Spy option. If it is your turn, you can see the computer's rating of the move you want to play in the status bar. If it's the computer's turn you can see (in status bar and highlighted pieces) the move he actually thinks is the best to play. Of course this changes along his search.

## 4.4 Selecting what color the computer plays

You can make the computer play Red, Yellow or both sides. Choose between these options before starting a new game. Of course it works in a game too if you want to change sides. Choose None to play against another human. This is very useful in Network Mode.

## Chapter 5

# Advanced Configuration

Kenolaba offers advanced configuration options for the daring, enabling you to change the whole scoring system if you wish. To access these advanced options, select Settings → Configure Kenolaba.... As you change settings, the score that your modified settings give for the current move is displayed at the bottom of the dialog, next to Evaluation of actual position:.

### 5.1 The Moves Tab

The number of points added to the total for each type of move can be modified here, depending on the type of move, and how many pieces are involved. The moves are divided into three types:

**Normal** A normal move is one in which you move one or more pieces of your own, but do not push any of your opponent's pieces.

**Push** A push move is one in which you push one or more of your opponent's pieces, but they remain on the board.

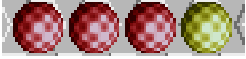
**Push Out** A push out move is one in which you push one or more of your opponent's pieces off the board.

### 5.2 The Position Tab

The number of points added to the total score for a board position is dependent on which ring on the board the pieces are on. For each ring, from the center out, an average score to add can be set, with a +/- range. The score given for a particular position is varied randomly within the +/- range. This is to stop computer-computer games going into an infinite loop.

### 5.3 The In-A-Row Tab

For each time the number of pieces in a row occurs, the given number of points

is added to the score, e.g.  adds the score for three in a row, and also two times the score for two in a row.

### 5.4 The Count Tab

Adds the given amount of points based on the difference in the number of balls on both sides, from 1 Ball more: up to 5 Balls more:. If there is a difference of 6 balls, the game is over.

### 5.5 The Evaluation Schemes Tab

Your evaluation schemes, defined in all other tabs of this dialog, can be stored or deleted here.

## Chapter 6

# Menu Reference

Drawing moves is explained under [Rules of the Game](#). The buttons in the toolbar have the same meaning as entries in the Game or Edit menu.

### 6.1 The Game Menu

**Game** → **New (Ctrl+N)** Starts a new game even if a game is currently in play.

**Game** → **Network Play (N)** If this toggle is switched on, the application is in Network Mode.

**Game** → **Quit (Ctrl+Q)** Quits Kenolaba.

### 6.2 The Edit Menu

**Edit** → **Copy (Ctrl+C)** Copy a representation of the Kenolaba board to the clipboard

**Edit** → **Paste (Ctrl+V)** Interpret the content of the X clipboard as an ASCII representation of a Kenolaba board, and copy it to the current board. A valid ASCII representation is generated by Copy.

**Edit** → **Modify (Ctrl+Insert)** Switches Kenolaba to Modify Mode.

**Edit** → **Save Position (Ctrl+S)** Save the actual position to be retrieved later with Edit → Restore Position.

**Edit** → **Restore Position (Ctrl+O)** Restore the board position stored in the Kenolaba Configuration file by Edit → Save Position.

## 6.3 The Move Menu

**Move** → **Hint (H)** A hint for your next move is shown. Only possible if you play at level normal or above, the move number is 2 or greater and you have not undone your move.

**Move** → **Stop Search (S)** When the computer is thinking, his depth search is interrupted and he draws the best move he has found so far.

**Move** → **Take Back (PageUp)** Take back your previous move. Two (!) moves are undone: the opponents move and your last move. So it's your turn again. 100 moves are remembered; so don't hesitate to take back moves until you are at the beginning of the game. When in Modify mode (see **Edit** → **Modify**), decrement move number of this position.

**Move** → **Forward (PageDown)** Only useful in Modify mode: Increment move number of this position.

## 6.4 The Settings Menu

**Settings** → **Show Menubar (Ctrl+M)** Shows or hides the Kenolaba menubar.

**Settings** → **Show Toolbar** Shows or hides the Kenolaba toolbar.

**Settings** → **Show Statusbar** Shows or hides the Kenolaba status bar at the bottom of the screen.

**Settings** → **Save Settings** Saves the current settings to become the default for Kenolaba.

**Settings** → **Choose Game Type** Select the level that the computer plays at. Can be one of:

- Easy
- Normal
- Hard
- Challenge

**Settings** → **Computer Play** Choose which colors the computer plays. Can be one of:

- Red
- Yellow
- Both
- None

**Settings** → **Move Slow** A move drawn by the computer when this option is checked is shown by blinking and highlighting the pieces used in this move. Uncheck this option if you don't want to wait for this animation: Then only a quick highlighting is done.

**Settings** → **Render Balls** If checked, the pieces are rendered online by an internal simple ray tracer when needed (e.g. when resizing the window).

**Settings** → **Spy** If checked, turns on 'spying'.

**Settings** → **Configure Shortcuts...** Brings up the standard KDE shortcuts configuration dialog to customize the shortcuts used by Kenolaba.

**Settings** → **Configure Toolbars...** Brings up the standard KDE toolbar configuration dialog to customize the Kenolaba toolbar.

**Settings** → **Configure Kenolaba...** Opens the Kenolaba configuration dialog to change Kenolaba settings. See chapter 5.

## 6.5 The Help Menu

**Help** → **Kenolaba Handbook (F1)** Invokes the KDE Help system starting at the Kenolaba help pages. (this document).

**Help** → **What's This? (Shift+F1)** Changes the mouse cursor to a combination arrow and question mark. Clicking on items within Kenolaba will open a help window (if one exists for the particular item) explaining the item's function.

**Help** → **Report Bug...** Opens the Bug report dialog where you can report a bug or request a 'wishlist' feature.

**Help** → **About Kenolaba** This will display version and author information.

**Help** → **About KDE** This displays the KDE version and other basic information.

## Chapter 7

# Command line options

```
kenolaba [-pMyPortNumber] [-hhost:port]
```

With `-p` you specify the port number of the listening TCP socket when in Network Mode.

With `-h` you specify a remote Kenolaba process (with optional port number, when not using the default port on the remote machine) to communicate with when in Network mode. You can specify multiple remote processes.

## Chapter 8

# Credits & Licenses

Kenolaba

Program copyright 1997-2000 Josef Weidendorfer [Josef.Weidendorfer@in.tum.de](mailto:Josef.Weidendorfer@in.tum.de)

Original Documentation by Robert Williams [rwilliams@kde.org](mailto:rwilliams@kde.org) and Josef Weidendorfer

Documentation maintained by Philip Rodrigues [phil@kde.org](mailto:phil@kde.org).

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# Appendix A

## Installation

### A.1 How to obtain Kenolaba

Kenolaba is part of the KDE project <http://www.kde.org/> .

Kenolaba can be found in the kdegames package on <ftp://ftp.kde.org/pub/-kde/> , the main FTP site of the KDE project.

### A.2 Compilation and Installation

In order to compile and install Kenolaba on your system, type the following in the base directory of the Kenolaba distribution:

```
% ./configure
% make
% make install
```

Since Kenolaba uses **autoconf** and **automake** you should have no trouble compiling it. Should you run into problems please report them to the KDE mailing lists.