

CuckooChess 1.09 - A Java Chess Program

About the program

Most of the ideas in the program are from the [Chess Programming Wiki](#) or from the [TalkChess.com](#) forum.

The program implements many of the standard methods for computer chess programs, such as iterative deepening, negascout, aspiration windows, quiescence search with SEE move ordering, hash table, history heuristic, recursive null moves, futility pruning, late move reductions, opening book and magic bitboards.

The program is rather slow compared to state of the art chess programs. However, it is still quite good at tactics and scores [296](#) of 300 on the [win at chess](#) tactical test suite, at 10 seconds thinking time per position.

Note that I do not consider Java the best language for implementing a chess engine. I wrote this program mostly to get some hands-on experience with java and [eclipse](#).

The program uses the [Chess Cases](#) chess font, created by Matthieu Leschemelle.

I picked the name CuckooChess because the transposition table is based on [Cuckoo hashing](#).

The program, except for the chess font, is copyrighted by me, Peter Österlund, and is available as [open source](#) under the [GNU GPL v3](#) license.

Downloads

You can also run the applet as a standalone program. Download the [jar file](#) and run it like this:

```
java -jar cuckoo109.jar txt (text mode)
```

or like this:

```
java -jar cuckoo109.jar gui (graphical mode)
```

More commands are available in text mode than in graphical mode. Try the `help` command for a list of available commands.

Here is the source code (eclipse project) for the program: [cuckoo109.tar.bz2](#)

UCI mode

It is also possible to use the program as a [UCI engine](#), which means that you can use it with many graphical chess programs. For example, to use it with [XBoard/WinBoard](#) + [polyglot](#), set EngineCommand like this in the polyglot ini file:

```
EngineCommand = java -jar /path/to/jar/cuckoo109.jar uci
```

To use the program with the [Arena](#) GUI, create a one-line bat-file containing:

```
javaw -Xmx256m -jar cuckoo109.jar uci
```

Note that you must set the maximum heap size using `-Xmx` to a value larger than the hash size you set in the Arena program. (I don't know exactly how much larger.)

If you are using windows, you may also be interested in a compiled version available from Jim Ablett's [chess projects page](#).

Android port

[Here](#) is a port of the program to the Android mobile phone operating system. The android port has been tested on an emulated Android 1.6 device and on a real HTC desire (Android 2.2) device.

Note! For a much stronger Android chess program, have a look at [DroidFish](#).





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Preferences

Play White



Flip Board



Thinking Time

Show Computer Thinking



Text Size