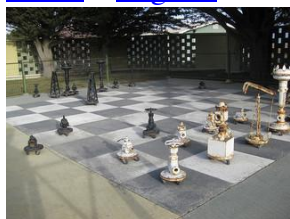


[Home](#) \* [Engines](#) \* **HeavyChess**



**HeavyChess**,  
an [UCI](#) compliant [open source](#)  
[chess engine](#) written by [Chispa](#)  
author [Federico Andrés Corigliano](#)  
in [C++](#), released in 2007 <sup>[1]</sup>.

Heavy Chess <sup>[2]</sup>

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## Description

### Board Representation

HeavyChess is a [bitboard](#) engine and uses compact [rotated bitboards](#) to determine [sliding piece attacks](#). It performs eight [byte lookups](#) to [count populations](#), and [bitscan](#) by conditional 64k lookups, where the most significant bit on the chess board maps the least significant arithmetical one <sup>[3]</sup>:

```
// Devuelve el Most Significant Bit de un Bitboard
inline Casilla Bitboards::MSB(const Bitboard &b) {
```

```
    if (b&65535) return static_cast<Casilla>(TablaMSB[b&65535]);  
    if (b&MSBMask1) return static_cast<Casilla>(TablaMSB[(b>>16)&  
65535]+16);  
    if (b&MSBMask2) return static_cast<Casilla>(TablaMSB[(b>>32)&  
65535]+32);  
    return static_cast<Casilla>(TablaMSB[b>>48]+48);  
}
```

## Search

HeavyChess applies [PVS alpha-beta](#) with [transposition table](#) and [null move pruning](#), [mate threat](#) and [check extensions](#) inside a [fractional ply iterative deepening](#) framework with [aspiration windows](#).

## Evaluation

The [evaluation](#) seems not that heavy as the program's name suggests. Beside obligatory, [incremental updated material balance](#), HeavyChess utilizes [piece-square tables](#) and considers various piece terms, such as [bishop pair](#), [rook on \(half\) open file](#), and [rook on 7th rank](#).

## See also

- [Chispa](#)

## Forum Posts

- [HeavyChess](#) by [Ron Murawski](#), [Winboard Forum](#), September 09, 2008
- [Heavychess](#) by Mark Mason, [CCC](#), August 09, 2009

## External Links

- [Index of /fedecorigliano/ajedrez/heavychess](#)
- [Index of /chess/engines/Norbert's collection/HeavyChess 0.13 beta/HeavyChess](#) by [Norbert Raimund Leisner](#), hosted by [Kirill Kryukov](#)
- [HeavyChess 0.13 beta](#) in [CCRL 40/4](#)

## References

1. <sup>^</sup> [HeavyChess](#) by [Ron Murawski](#), [Winboard Forum](#), September 09, 2008

2. [^ Chessboard](#) and [pieces](#) made out of [mining](#) tools and parts in [Cerro Sombrero](#), [Chile](#). [Flickr Photo](#) by [Mr. Hicks](#), March 08, 2010
3. [^ HeavyChess 0.13 \BitBoards.h](#)

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