

[Home](#) * [Engines](#) * **Tinker**



Tinker or [Gypsy Vanner horse](#) ^[1]

Tinker,
a private [Chess Engine Communication Protocol](#)
compatible chess engine by [Brian Richardson](#). Tinker participated at almost all official online tournaments, [CCT Tournaments](#), [ACCA Americas' Computer Chess Championship](#), and [ACCA World Computer Rapid Chess Championship](#). Tinker's internal [board representation](#) is based on [bitboards](#).

Table of Contents

[Move Generation](#)

[See also](#)

[Forum Posts](#)

[External Links](#)

[References](#)

[What links here?](#)

Move Generation

Tinker uses an idiosyncratic [move generation](#) approach for [sliding pieces](#) based on [rook](#) and [bishop attacks on the otherwise empty board](#). While [serializing](#) all those potential targets, it tests for legality inside the loop body, that is whether the [inbetween squares](#) of [origin](#) and [target](#) are empty. This is not in the "real" bitboard spirit to determine attack sets in advance in the bitboard centric world rather than to test individual elements of a superset belonging to a set, but at least it allows traversing disjoint target sets i.e. for captures in [quiescence search](#). This is the slightly edited code posted by Brian in 2000 ^[2]:

```
froms = tree->wbishopsqueens;  
while (froms) {
```

```
f = lastOne(froms);
tos= bishopto[f] & targets;
while (tos) {
    t = lastOne(tos);
    if ( (allpieces & nopieces[f][t]) == 0) {
        gen_push(f, t);
    }
    clear(t, tos);
}
clear(f, froms);
}
```

In 2007, Brian claimed his approach competitive compared with [Magic Bitboards](#) ^[3].

See also

- [Mammal](#)
- [Ruffian](#)

Forum Posts

- [CCT2 Tinker Observations](#) by [Brian Richardson](#), [CCC](#), November 07, 2000
- [Nice Stalemate Trap by Tinker](#) by [Dieter Bürssner](#), [CCC](#), October 29, 2001
- [Itanium2 Testing Crafty & Tinker Informal Results](#) by [Brian Richardson](#), [CCC](#), February 16, 2003 » [Itanium](#)
- [Tinker Scores Re: STATIC EVAL TEST \(provisional\)](#) by [Brian Richardson](#), [CCC](#), February 21, 2004
- [Tinker 64 Bit Speedup \(Early Results\)](#) by [Brian Richardson](#), [CCC](#), March 30, 2004
- [SEE Observation](#) by [Brian Richardson](#), [CCC](#), August 02, 2009 » [SEE](#)

External Links

- [Tinker from Wikipedia](#)
- [Tinker \(disambiguation\) from Wikipedia](#)
- [Small Faces](#) with [P.P. Arnold](#) - [Tin Soldier](#), March 02, 1968, [YouTube](#) Video

References

1. [^] [Tinker \(Pferd\) from Wikipedia.de](#) (German)
2. [^] [Movegen Re: Bitmap Type Re: Tinker 81 secs Re: Testing speed](#) by [Brian Richardson](#), [CCC](#), April 24, 2000

3. [^ BitBoard Tests Magic v Non-Rotated 32 Bits v 64 Bits](#) by [Brian Richardson](#), [CCC](#), August 24, 2007

What links here?

Page	Date Edited
More Links	
ACCA 2006	Jul 14, 2014
ACCA 2007	Jul 14, 2014
ACCA 2008	Jul 14, 2014
ACCA 2009	Jul 14, 2014
ACCA 2010	Jul 14, 2014
ACCA 2011	Jul 14, 2014
ACCA 2012	Jul 14, 2014
Brian Richardson	May 16, 2017
Buzz	Jun 22, 2016
CCT1	Dec 30, 2012
CCT10	May 5, 2013
CCT11	Feb 17, 2015
CCT12	Jan 28, 2018
CCT13	Dec 6, 2013
CCT15	Oct 21, 2014
CCT2	Sep 7, 2012
CCT3	Feb 14, 2013
CCT4	Apr 22, 2013
CCT5	Feb 22, 2013
CCT6	May 29, 2014
CCT7	Dec 16, 2017
CCT8	Apr 6, 2013
CCT9	Aug 25, 2013
Chester	Feb 15, 2014
Engines	Mar 10, 2018
Itanium	Aug 29, 2015
Joker IT	Sep 16, 2017
Move Generation	Jan 29, 2018
ProChess IT	Sep 30, 2015
Ruffian	Jun 6, 2017
Sliding Piece Attacks	May 27, 2016
Static Exchange Evaluation	Dec 14, 2017
Tinker	Aug 29, 2015
WCRCC 2007	Nov 21, 2016
WCRCC 2008	Nov 21, 2016
WCRCC 2010	Jul 14, 2014
WCRCC 2011	Oct 21, 2014
WCRCC 2012	Jul 14, 2014

Page

[WCRCC 2014](#)

[WCRCC 2016](#)

Date Edited

Jul 27, 2014

Jun 27, 2017

[Up one Level](#)