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The Ghost ^[4]

Ghost,

a [Chess Engine Communication Protocol](#) compatible, free chess engine written in [C++](#) by [Philipp Claßen](#), supported by his brother Michael Claßen ^[1]. The name was taken from the name of [Wolf Larsen's](#) seal-hunting schooner in the novel [The Sea-Wolf](#) by [Jack London](#).

Ghost started its life in about 2000 as subject of a school project, the first version appeared in early 2001, playing online at [Internet Chess Club](#) ^[2], and later in rating list tournaments such as [CCRL](#) ^[3]. Subsequent versions were Ghost 1, Ghost 2, and Ghost 3. Executables are available for [Windows](#) and [Linux](#) platforms. Likely, the current Ghost is [bitboard](#) based, due to the much faster 64-bit executable.

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Ghost 1

Ghost 1 performed [NegaScout](#), [IID](#), [killer-](#) and [history heuristics](#), [recursive null move pruning](#) with [depth reduction](#) of 3, [razoring](#) and [futility pruning](#), and a unique technique to detect [perpetual checks](#). It further used the [oracle](#) approach of pre-scanned [piece-square tables](#) at the [root](#) ^[5].

Ghost 2

The second version, first released in 2003, is a [MTD\(f\)](#) searcher, further utilizing [late move reductions](#), [adaptive null move pruning](#) with [R](#) of 2 or 3 [plies](#), [ETC](#), and a unique [pin](#) detection [extension](#). Ghost 2 has a safer perpetual check detection than Ghost 1, and usus local history counters ^[6].

Ghost 3

Still using [MTD\(f\)](#), the [search](#) has been rewritten from scratch to support [parallelism](#) using [work stealing](#) provided by the [Threading Building Blocks](#) library. The stable version 3.1 was released on May 30, 2017 ^[7].

See also

- [Demonology](#)
- [Fiction](#)
- [Ship](#)

Forum Posts

- [crafty vs ghost on ICC ...could Kasparov himself execute such an attack?](#) by Jeffrey Wadsworth, [CCC](#), October 28, 2001 » [Crafty](#)
- [new ghost homepage](#) by Michael Claßen, [Winboard Forum](#), September 22, 2004
- [Ghost 3.1 released!](#) by [Günther Simon](#), [CCC](#), June 01, 2017

External Links

Chess Engine

- [Ghost](#) by [Philipp Claßen](#)
- [Ghost](#) from [WBEC Ridderkerk](#)

Misc

- [Ghost \(disambiguation\)](#) from Wikipedia
- [Ghost](#) from Wikipedia
- [List of ghost ships](#) from Wikipedia
- [Adam Marczyk](#) (2003). [A Ghost in the Machine](#). [EBON MUSINGS: The Atheism Pages](#)
- [John Ruocco](#) - A Ghost of a Chance, [Taipei Jazz Festival](#), 2013, [YouTube](#) Video
feat.: [Joachim Schoenecker](#), [Bart De Nolf](#), [Mimi Verderame](#)

References

1. [^](#) [Michael Claßen - Germany | LinkedIn](#)
2. [^](#) [crafty vs ghost on ICC ...could Kasparov himself execute such an attack?](#) by Jeffrey Wadsworth, [CCC](#), October 28, 2001
3. [^](#) [Ghost 2.0.1 in CCRL 40/40](#)
4. [^](#) [The Sea-Wolf | Jack London | Lit2Go ETC](#), Copyright © 2006—2018 by the [Florida Center for Instructional Technology](#), [College of Education](#), [University of South Florida](#)
5. [^](#) [Ghost | Search algorithms: Ghost 1](#) by [Philipp Claßen](#)
6. [^](#) [Ghost | Search algorithms: Ghost 2](#) by [Philipp Claßen](#)
7. [^](#) [Ghost 3.1 released!](#) by [Günther Simon](#), [CCC](#), June 01, 2017

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