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AICE Logo ^[3]

AICE,
a free [Chess Engine](#)
[Communication Protocol](#) and [UCI](#)
compliant chess engine, written by
[Anastasios Milikas](#) in [C++](#) using
the [Standard Template Library](#),
with [Windows](#) and [Linux](#) binaries
available ^[1]. AICE is an [Arena](#)
partner engine ^[2], and able to play
[Chess960](#), participated at the two
open [Livingston Chess960](#)
[Computer World Championships](#),
the [Chess960CWC 2005](#) and the
[Chess960CWC 2006](#).

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Etymology

AICE stands for *Artificially Intelligent Chess Engine*, as explained by Anastasios, who also remarked "This is probably not a good name, since the engine is not intelligent! But I am working on it..." ^[4]. Anastasios initial intention with AICE was to use [neural networks](#) and [genetic algorithms](#) in order to [optimize its](#)

[evaluation weights](#), but he found that this was not productive and suitable for a chess [evaluation function](#). They might be useful in [time management](#), or controlling extensions or reductions ^[5].

Features

AICE is a [bitboard](#) based [PV searcher](#) with [adaptive null move pruning](#) in none [PV-Nodes](#), using [SEE](#), [history-](#) and [killer heuristic](#) to improve [move ordering](#), and [fractional extensions](#) and non recursive [reductions](#) based on [evaluation](#) and history. In version 0.73, [fail-high reductions](#) were implemented in addition to null move pruning, but removed in in 0.97. Beside the [transposition table](#) and a smaller [hash table](#) for the [quiescence search](#), AICE maintains a [pawn hash table](#) to cache once calculated [pawn structure](#) related data.

See also

- [Acronym](#)

Forum Posts

- [AICE 0.85](#) by [milix](#), [Winboard Forum](#), December 21, 2004
- [AICE 0.86](#) by [milix](#), [Winboard Forum](#), December 30, 2004
- [Cycle VI-2005 6. Bundesliga result and games - AICE !](#) by [Karl-Heinz Söntges](#), [CCC](#), July 24, 2005
- [Aice 0.96 Linux: confused by a draw offer](#) by [Volker Pittlik](#), [Winboard Forum](#), August 10, 2006
- [AICE 0.99.2](#) by [milix](#), [Winboard Forum](#), August 25, 2006

External Links

Chess Engine

- [milix AICE chess engine for both UCI and Winboard](#)
- [Interview with the programmer of AICE](#) by [Alexander Schmidt](#) and [Frank Quisinsky](#), [Arena Chess GUI 3.0](#) - Archive 8, 118, April 27, 2005
- [Portrait of Anastasios Mikilas, author of the Chess960 engine AICE](#) by [Mark Vogelgesang](#), July 21, 2005
- [Arena Chess GUI 3.0 - Aice](#)
- [Aice 0.99.2](#) in [CCRL 40/40](#)
- [Aice 0.99.2](#) in [CCRL 40/4 FRC](#)

Misc

- [aice - Wiktionary](#)
- [AICE \(disambiguation\) from Wikipedia](#)
- [Advanced International Certificate of Education \(AICE\) from Wikipedia](#)

References

1. [^ milix AICE chess engine for both UCI and Winboard](#)
2. [^ Arena Chess GUI 3.0 - Aice](#)
3. [^ milix AICE chess engine for both UCI and Winboard](#)
4. [^ Portrait of Anastasios Mikilas, author of the Chess960 engine AICE](#) by [Mark Vogelgesang](#), July 21, 2005
5. [^ Interview with the programmer of AICE](#) by [Alexander Schmidt](#) and [Frank Quisinsky](#), [Arena Chess GUI 3.0 - Archive 8, 118](#), April 27, 2005

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