

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

[Marcel Duchamp](#) - To Be Looked
at
(from the Other Side of the Glass)
[\[1\]](#)

Glass,
an [UCI](#) compliant chess engine,
written by the authors of the [CPW-
Engine](#), [Pawel Koziol](#) and [Edmund
Moshhammer](#), first released in
December 2008 [\[1\]](#) - and not to
confused with [Chess for Glass](#).
Glass comes with 21 documented
personalities at varying levels of
strength [\[2\]](#), and with its own
[opening book](#) format [\[3\]](#). Version
Glass 2.0 PERSONALITY,
released on February 25, 2012, was
announced as the last version of
this developement line [\[4\]](#) [\[5\]](#).

Table of Contents

[Features](#)

[Board Representation](#)

[Search](#)

[Evaluation](#)

[Misc](#)

[See also](#)

[Forum Posts](#)

[2008 ...](#)

[2010 ...](#)

[External Links](#)

[Chess Engine](#)

[Misc](#)

[References](#)

[What links here?](#)

Features

[\[7\]](#) [\[8\]](#) [\[9\]](#)

[Board Representation](#)

- [Bitboards](#)
- [Staged Move Generation](#)

[Search](#)

- [Iterative Deepening](#)
- [Alpha-Beta Principal Variation Search](#)
- [Transposition Table](#)
- [Null Move Pruning](#)
- [Late Move Reductions](#)
- [Razoring](#)
- [Futility Pruning](#)
- [Enhanced Transposition Cutoff](#)
- [Principal Variation Hash Table](#)
- [History Heuristic](#)
- [Quiescence Search](#)
- [SEE](#)
- [Delta Pruning](#)

[Evaluation](#)

- [Evaluation Hash Table](#)
- [Material](#)
- [Material Imbalance](#)
- [Piece-Square Tables](#)
- [Mobility](#)
- [Asymmetric Evaluation](#)
- [King Safety](#)
- [Pawn Storm](#)

Misc

- [Opening Book](#)
- [Nalimov Tablebases](#)
- [Learning \(Persistent Hash Table\)](#)

See also

- [CPW-Engine](#)
- [Rodent](#)

Forum Posts

2008 ...

- [Introducing Glass chess engine](#) by [Pawel Koziol](#), [CCC](#), December 13, 2008
- [Glass 1.0 update](#) by [Edmund Moshammer](#), [CCC](#), March 31, 2009
- [Glass 1.1](#) by [Pawel Koziol](#), [CCC](#), April 06, 2009
- [Glass 1.2 released](#) by [Pawel Koziol](#), [CCC](#), May 03, 2009
- [Glass Opening Book Manager 1.0 - Released!](#) by [Edmund Moshammer](#), [CCC](#), May 03, 2009
- [Glass 1.3 release](#) by [Pawel Koziol](#), [CCC](#), June 30, 2009

2010 ...

- [Glass 1.5 release](#) by [Pawel Koziol](#), [CCC](#), March 28, 2010
- [Glass 1.6 - New with Personalities!!](#) by [Edmund Moshammer](#), [CCC](#), July 13, 2010
- [Glass 1.7 release](#) by [Pawel Koziol](#), [CCC](#), July 20, 2011
- [Glass 1.7 aggressive = CSTal at his best and more](#) by [Fernando Villegas](#), [CCC](#), July 23, 2011
- [Glass 1.8 released](#) by [Pawel Koziol](#), [CCC](#), November 27, 2011
- [Glass 1.9 released](#) by [Edmund Moshammer](#), [CCC](#), July 06, 2012
- [Glass news](#) by [Pawel Koziol](#), [CCC](#), February 25, 2013

External Links

Chess Engine

- [Glass Homepage](#)
- [Glass](#) at [CCRL 40/40](#)

Misc

- [Glass from Wikipedia](#)
- [Glass \(disambiguation\) from Wikipedia](#)
- [Agnes Obel](#) - [Citizen Of Glass](#) (2016), [YouTube](#) Video

References

1. [^ Introducing Glass chess engine](#) by [Pawel Koziol](#), [CCC](#), December 13, 2008
2. [^ Glass 1.6 - New with Personalities!!](#) by [Edmund Moshhammer](#), [CCC](#), July 13, 2010
3. [^ Glass Opening Book Manager 1.0 - Released!](#) by [Edmund Moshhammer](#), [CCC](#), May 03, 2009
4. [^ Glass news](#) by [Pawel Koziol](#), [CCC](#), February 25, 2013
5. [^ Glass Homepage](#)
6. [^ Marcel Duchamp](#) 1918 *A regarder d'un oeil, de près, pendant presque une heure, To Be Looked at (from the Other Side of the Glass) with One Eye, Close to, for Almost an Hour*. Photograph by [Man Ray](#), published in [391](#), July 1920, [Museum of Modern Art](#), [Marcel Duchamp from Wikipedia](#)
7. [^ Introducing Glass chess engine](#) by [Pawel Koziol](#), [CCC](#), December 13, 2008
8. [^ Glass Homepage - Details](#)
9. [^ Glass Homepage - History](#)

What links here?

Page	Date Edited
CPW-Engine	Dec 31, 2014
Edmund Moshhammer	Sep 23, 2017
Engines	Mar 10, 2018
Glass	May 24, 2017
IGWT 2013	Jun 23, 2014
Mate Distance Pruning	Jun 2, 2017
Pawel Koziol	Dec 17, 2017
PCCC 2010	Aug 9, 2016
PCCC 2011	Mar 12, 2013
PCCC 2012	Mar 11, 2013
Principal variation	Dec 4, 2017
Sidonia	May 19, 2016

[Up one Level](#)