

Stalemate and 'DTS' depth to stalemate endgame tables

Article

Supplemental Material

Intro to the various pgn files

Müller, K. and Haworth, G. ORCID: <https://orcid.org/0000-0001-9896-1448> (2020) Stalemate and 'DTS' depth to stalemate endgame tables. ICGA Journal, 41 (4). pp. 191-199. ISSN 1389-6911 doi: <https://doi.org/10.3233/ICG-190133>
Available at <https://centaur.reading.ac.uk/86343/>

It is advisable to refer to the publisher's version if you intend to cite from the work. See [Guidance on citing](#).

Published version at: <https://content.iospress.com/articles/icga-journal/icg190133>

To link to this article DOI: <http://dx.doi.org/10.3233/ICG-190133>

Publisher: The International Computer Games Association

All outputs in CentAUR are protected by Intellectual Property Rights law, including copyright law. Copyright and IPR is retained by the creators or other copyright holders. Terms and conditions for use of this material are defined in the [End User Agreement](#).

www.reading.ac.uk/centaur

CentAUR

Central Archive at the University of Reading

Reading's research outputs online

This is an introduction to the ancillary pgn files supporting the article *Stalemate and 'DTS' Stalemate EGTs*, published in the *ICGA Journal*, Vol. 41(4), doi: 10.3233/ICG-190133.

Aloril_maxDTS_stalemates.pgn

Counts, and an example position and DTS-minimaxing line, of the maxDTS(stalemate) positions.
!! ≡ only stalemating move; != unique DTS-optimal move, depths in ply.

Aloril_validations_of_Bungart.pgn

DTS-minimaxing lines from Bungart's 37 positions, verifying Bungart's maxDTS depths.

b_Fig2_5_Black_stalemates.pgn

The five '1-3' stalemates of Fig. 2: Black stalemates White.
These are taken from Beasley & Whitworth's *Endgame Magic*, Ch. 4, #s 12, 6, 7, 9 and 5.
The other draw-study stalemates in Ch. 4 are also by Black: #s 1-4 and 8.
The studies database HHDBV contains 12,402 studies in which Black stalemates White ...
... and only 326 studies in which White stalemates Black.
Respecting copyright, we do not provide a pgn of the 12,402 studies from HHDBV.
See also **s_Selman_..._v2.pgn** below for 39 positions from which Black stalemates White.

f_flawed_stalemate_studies.pgn

This file's first study is that by Liburkin featured in the *Oxford Companion to Chess*.
A few faulty 'stalemates by White' are also included. Faults range from alternative drawing moves to winning moves.
The full analysis of the 117 'flawed, White to stalemate' studies was ultimately out of scope for the authors.
Readers are invited to add other stalemate studies to this file which they find flawed and flag them up.

Fig1_5_maxDTS_lines.pgn

Example maxDTS positions and DTS-minimaxing lines for the six endgames with the largest maxDTS.
Fig. 1: KQPKQ, KPPKP, KPPKQ, KQPKP, KRPKP (and after 1...d1=Q, a KRPKQ maxDTS position).
(For similar example maxDTS positions and DTS-minimaxing lines, see **Aloril_maxDTS_stalemates.pgn**.)

Fig3_5_White_stalemates.pgn

The five '3-1' stalemates of Fig. 3: White stalemates Black.
As stated above, '3-1' stalemates are relatively rare.

p_Fig4_5_puzzle_solutions.pgn

The five puzzles of Fig. 4: these ask for DTS-minimaxing lines and are not studies.

s_Selman_Reciprocal_Stalemates_v2.pgn

The original expositions, recast and elaborated, as follows:
the first opportunity for stalemate – usually falling to Black – is in the main line,
Black stalemates from the 39 positions 3, 5-8, 10-41 and 43-4.
the eventual stalemates, either '3-1' by White or '1-3' by Black, are highlighted, and
many moves are annotated '??' (losing points in Lasker Chess), '!' (best) or '!!' (only value-preserving).

Selman_Reciprocal_Stalemates_original.pgn

The positions and analysis of Selman's *Reciprocal Stalemates* of 1991.
These are the original expositions, as taken from the database HHDBV.

w_White_stalemates.pgn

The 326 studies from database HHDBV in which White stalemates Black.
Harold van der Heijden indicates some sort of flaw in a study with an '@' ...
... 117 of the 326 studies here have an '@' against them:
26 '@1', 59 '@2', 50 '@3' and 5 '@4' as some studies have more than one '@ flaw'.

World_Chess_Ch_2018.pgn

The twelve classical games of the Carlsen-Caruana World Chess Championship, London, 2018.