Chess endgame news

Article

Published Version

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

www.reading.ac.uk/centaur

CentAUR

Central Archive at the University of Reading

Reading's research outputs online

CHESS ENDGAME NEWS

G.M^{c}C. Haworth[1]

Reading, UK

John Beasley, a past contributor to the *ICGA Journal*, published the highly acclaimed quarterly *British Endgame Study News* from 1996 to 2010. It contained many items and observations on the computer contribution to chess endgames and studies. Happily, Beasley (2011) now provides all sixty issues online.

Bourzutschky and Konoval (2011) are once again reporting on their generation and use of 7-man endgame tables (EGTs) to the DTC metric.[2] Their focus is mainly on 7-man P-ful EGTs with the caveat that these have been created with '7 man' Pawn promotions restricted to P=Q or to P=Q/N. Positions of record depth, incorrect play over the board and newly-faulted studies all feature. They also mention two of their sub-7-man studies composed with EGT-assistance, some zugzwang positions, and the first 8-man EGT. This is of the relatively manageable if improbable endgame KB$_b$B$_b$B$_w$B$_w$KRR:[3] KB$_b$B$_b$B$_b$B$_w$KRR has an even smaller EGT!

Id	EGT	Position	Val.	DTC	Notes
G1	KQPPKQP~	8/p5q1/6k1/8/2Q5/P7/KP6/8 b 47	1-0	92	Lautier-Piket (1995): P lost after 50...Ke6?
G2	KQPPKQP~	7Q/1p6/3p2K1/6P1/8/8/8/1k1q4 w 51	=	----	Kasparov-World (1999): the World lost after 54...b4??
G3	KRPPKRP≈	8/4R3/p5kp/2r5/8/3K4/P7/8 b 50	0-1	56	Timman-Karpov (1988): K missed 50...Rd5+!! but won
G4	KRPPKRP≈	5k2/R7/4p2r/8/8/6P1/5PK1/8 w 57	1-0	44	Pinter-Portisch (1988): Pinter missed 57.g4!!
G5	KRPPKRP≈	6r1/p7/3k4/R7/5P2/8/P6K/8 w 37	1-0	22	Anand-Shirov (2004): A missed 37.Re5!! but 40...Rb4?? lost
R1	KRBNKQN	8/1r6/8/6n1/5k2/1b6/3K3N/7Q b	1-0	517	Surpassing (2006-03-11) KQBNKQB's maxDTC = 330
R2	KQPPKQP~	6k1/5p1q/8/P7/2Q5/1K6/P7/8 w	1-0	222	1 of 10 maxDTC positions: maxDTC KQPKQ (1-0) = 114
R3	KQPPKQP~	7q/8/6p1/1P6/1p6/8/Q2K2k1/8 w	0-1	105	1 of 6 maxDTC positions: maxDTC KQPKQ (0-1) = 16
R4	KRPPKRP≈	8/r7/2K3p1/k7/8/8/P4P2/1R6 w	1-0	79	1 of 18 maxDTC positions: maxDTC KRPKR (1-0) = 60
R5	KRPPKRP≈	2R5/p7/p7/2P5/8/rk6/8/2K5 w	0-1	41	maxDTC KRPKR (0-1) = 7
R6	KB$_b$B$_b$B$_w$B$_w$KRR	6r1/8/B4rB1/8/1B6/5k2/7B/K7 w	1-0	64	First 8-man EGT: quoted line mates with the capture
R7	KRBBKQB	8/8/8/8/2b2q2/B7/1R3B2/2k1K3 w/b	L/L	-96/-2	Only known full-point zugzwang without Knights or Pawns
S1	KQPKQ	2K5/6P1/8/7k/5Q2/8/8/7q w	1-0	4	MB/YK (2009), HHdbIV #75917, features P=N/R
S2	KRRPKQ	5q2/8/8/1R1R2Pk/8/8/2K5/8 w	1-0	6	MB/YK (2010) features P = B/N/R: 1.g6!! Kh6 2.g7!! Qf2+ ...

Table 1. Selected game (Gi), record depth (Ri) and Endgame Study (Si) positions.[4]

Positions R2-R6 do not threaten R1's 517-move record and it seems likely that eight men are needed to do so. The defenders all capitulated from positions G1-G5, even when the aggressors missed unique winning moves and proffered theoretical draws. G2 confirms a draw was available eight plies before 54. ... b4 lost (Karrer, 2000): it would now be interesting, using the KQPPKQP~ EGT, to revisit the analysis of Kasparov and King (2000) and investigate the best offensive/defensive play in the drawn situation. EGTs with one of sixteen constraints on Pawn promotion[5] can highlight the need for under-promotion to Knight, Bishop and/or Rook rather than Queen. Studies S1 and S2, for the reader, feature two and, uniquely, three different under-promotions. Newly EGT-cooked studies include those with HHdbIV indexes 20897, 33664, 65851 and 65852 (van der Heijden, 2010).

References

Beasley, J. (2011). http://www.jsbeasley.co.uk/. The repository for *British Endgame Study News*.

Bleicher E. (2007). http://www.k4it.de/index.php?topic=egtb&lang=en. EGT-query site.

Bourzutschky, M. and Konoval, Y. (2011). News in Endgame Databases. *EG* Vol. 17, No. 185, pp. 220-229.

Karrer, P (2000). KQQKQP and KQPKQP≈. *ICCA Journal*, Vol. 23, No. 2, pp. 75-84.

Kasparov, G. and King, D. (2000). Kasparov against the world. KasparovChess Online. ISBN 0-9704-8130-6.

van der Heijden, H.M.J.F. (2010). http://www.hhdbiv.nl/. HHdbIV, ENDGAME STUDY DATABASE IV.

---

[1] The University of Reading, Berkshire, UK, RG6 6AH. email: guy.haworth@bnc.oxon.org.

[2] DTC ≡ Depth to Conversion, i.e., to change of force and/or mate.

[3] B$_{b(w)}$ indicates 'Bishop on black (white) square': YK's position-indexing presumably allows B$_{b(w)}$ only 32 squares.

[4] Notation: ~ (≈) ≡ 'immediate Pawn promotion restricted to Queen (Queen or Knight)'

[5] If promotion to Q, R, B and N is independently (not) allowed, there are 2^4=16 Pawn-promotion scenarios.