The world's largest endgame study database - edition 6 (HHdbVI)

Introduction

The sixth edition of the famous Harold van der Heijden endgame study database (HHdbVI) is available now. This edition with 93,839 studies has more than 8,000 additional studies in comparison with HHdbV, and also the solutions of thousands of studies were corrected or updated. This is by far the most comprehensive collection of endgame studies available.

Chess players can benefit from endgame studies by trying to solve them. That trains both one's calculation ability and tactical performance in the endgame. Beth Harmon in the terrific Netflix serie The Queen's Gambit also showed her talent by quickly solving a chess puzzle – unfortunately "only" a problem and not an endgame study....

For the endgame study enthusiast, either admirer, cook hunter, composer or tourney judge HHdbVI is a must have.

www.hhdbvi.nl

What is an endgame study?

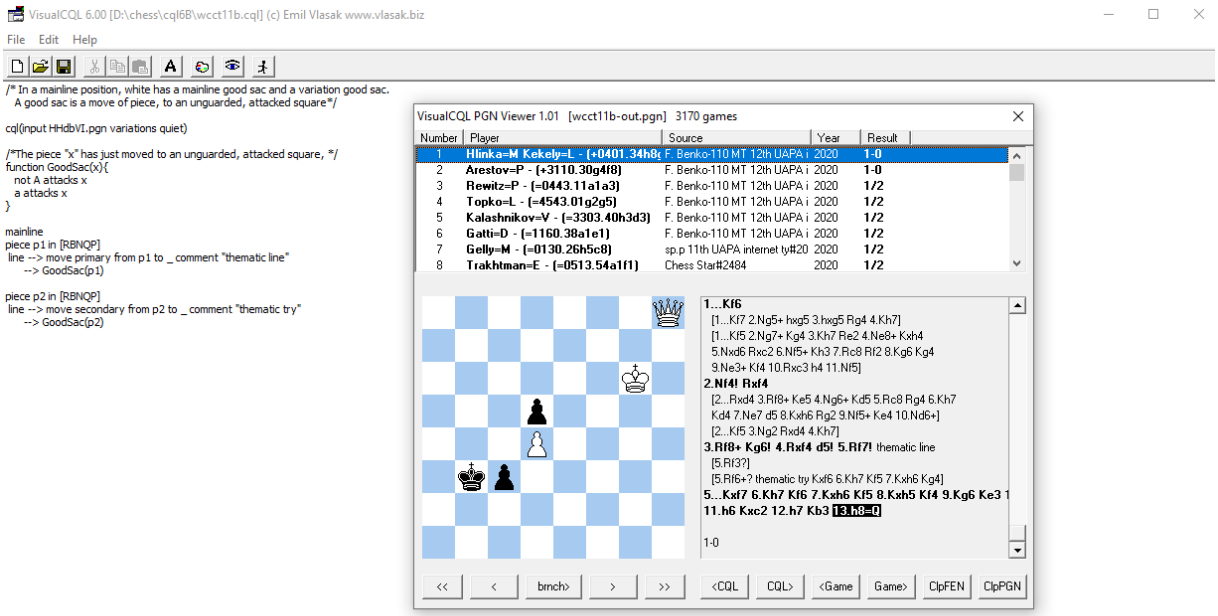
An endgame study is a chess position presented as a puzzle with the stipulation *White wins*, or *White draws*, and has a unique solution. Although it looks like a game fragment, an endgame study is composed. A good endgame study should have an entertaining solution with surprising moves or beautiful combinations that baffle chess players. For both beginners and world class grandmasters, it is also great fun to try and solve endgame studies as difficulty ranges from simple to very difficult.

http://en.wikipedia.org/wiki/Endgame_study

Software

The database is in PGN-format. This is a standard chess database format and can be accessed by commercial chess database programs (like ChessBase, Chess Assistant), commercial chess playing software (Fritz, Rybka, Shredder, etc.) and many freeware programs (e.g. PGN-readers).
The PGN-format was developed for storing chess games, but is also suitable for a database of endgame studies. Apart from the initial position and the solution (including sublines or analysis) also additional information is provided: the name(s) of the composer(s), the GBR-code which is an index code denoting the chess force in the initial position, place and date of the primary source (tourney, journal, magazine) and whether it is a win or a draw study.
The chess software mentioned above can be used to find studies in the database by name, year, source, material balance, and numerous other criteria. Most chess software also allows you to find positions or moves. For advanced users (like judges and composers) a magnificent tool was especially developed for the endgame study database by Lewis Stiller and Gady Costeff for finding complex patterns and

manoeuvres: Chess Query Language (CQL). CQL as well as the graphical interface Visual CQL (programmed by Emil Vlasák) are freely downloadable.



Screenshot of Chess Query Language and Visual CQL.

http://en.wikipedia.org/wiki/Portable_Game_Notation
http://en.wikipedia.org/wiki/ChessBase
http://en.wikipedia.org/wiki/Chess_Assistant
http://en.wikipedia.org/wiki/List_of_chess_software
http://en.wikipedia.org/wiki/GBR_code
http://www.gadycosteff.com/cql/
http://www.vlasak.biz/vcql6.htm

What's new in HHdbVI? (information for experienced users)

HHdbVI again has more information than HHdbV did. Apart from more than 8,000 new studies, also the solutions of thousands of studies have been updated, e.g. by adding sublines from primary sources. Also, many endgame study enthusiasts reported thousands of flaws in studies to me.

Like in HHdbV sources of corrections, modifications or versions are added as text before the 1st move of the solution. The same goes for the cooks, including the names of the person(s) who cooked the study (and the relevant move is marked with his initials). This information is relevant for people writing about endgame studies. Without HHdbVI it is almost impossible to find out where a certain correction of a study was published, or who managed to first cook that famous prize winner!

Other details/additions (☑ = new in HHdbVI):
- More publication details (dates, publication month and issue number ☑ of newspapers, or magazines).
- 100% anticipations: reference to the relevant study.
- For studies that were inspired on a previous study ("after"): reference to the relevant study.
- **EG**-number.
- For some studies, the composer mentioned the composition date (year) of a study which (of course) was earlier than the year of publication.
- Results of ring tourneys.
- Source information if a study was submitted to more than one source.
- In some cases, orthodox chess problems are sometimes published as win studies. If known, the original stipulation is provided.

Codes

Similar to HHdbV, codes are included to be able to identify flaws (cooks, corrections) and other relevant properties of endgame studies. This codes are now included in the "Black" field of the PGN.
U1: second solution (at move 1).
U2: cook; extra solution after move 1.
U3: incorrect; White is unable to fulfil the stipulation (in a win study Black draws or wins; in a draw study White loses).
U4: "super-cook". White can even win in a study with a draw stipulation.
U5: illegal initial position ☑.
(c): correction; i.e. original study was unsound.
(m): modification; i.e. original study was sound, the improvement has another motivation.
(v): version (perhaps a correction or a modification).
(s): corrected solution (without changing the position).
MC: too many composers to fit the "White" field. All names given as text before the first move.
TW: twin study (also triplicates, quadruplicates, etc).
AN: 100% anticipation: the whole study was published earlier by someone else.
PH: posthumously published.
TE: theoretical ending (i.e. probably not an endgame study).
CR: colours reversed (the original stipulation was: Black to win/draw).
TT: theme tourney.

Textual comments

There are some textual comments occurring in the solution of a study:

- Before the first move, there is additional information on the endgame study like stipulation, composer, tourney, source and date. **EG**# points to diagram nummner in the famous endgame study magazine **EG**.
- **<main>** this is also a main line of the solution.
- **<or>** an alternative move but very similar to the main line (minor dual).
- **<eg>** the solution has ended with the last white move, the rest is only analytical proof, and may have alternative moves,
- **<cook>** and may have initials. This indicates the move that cooks the study. The initials refer to the person who found the cook. The details are given as textual comments before the first move. In most cases this is self-explanatory, but **HH** stands for Harold van der Heijden.

Statistics (by Harold van der Heijden, December 2020)

The previous editions from 1991, 2000, 2005, 2010, and 2015 contained 23358, 58801, 67691, 76132, and 85,619 endgame studies, respectively.
HHdbVI holds 93,839 endgame studies by no less than 5,671 composers, of which a vast 4,627 have less than 10 studies in the database (and 2,451 published only a single study!). All these figures include unsound studies and versions.
The average number of studies per composer is 18.1. The top six of the most prolific composers is unchanged in comparison with HHdbV (see Table 1). Hlinka, Arestov and Garcia are the newcomers in the top ten, kicking out Horwitz, Kasparyan, and Bondarenko.

Table 1: The top ten of composers with the largest number of studies in HHdbVI. Between brackets the number of studies without corrections or versions are given.

1.	Ernest Pogosyants	2,198	(1,924)
2.	Henri Rinck	1,792	(1,578)
3.	Aleksey Troitzky	1,762	(1,048)
4.	Ladislav Prokes	1,261	(1,108)
5.	David Gurgenidze	1,048	(916)
6.	Michael Bent	958	(823)
7.	Michal Hlinka	917	(858)
8.	Pavel Arestov	902	(869)
9.	Mario Guido Garcia	834	(789)
10.	Iuri Akobia	829	(772)

It is tempting to make a similar list with only the studies that are sound. But as studies of certain composers have been systematically checked using state-of-the-art hardware and software and those of others have not, such a list would have considerable bias.
Some composers made a giant leap in the number of studies (again including corrections) between HHdbV and HHdbVI: P. Arestov (+473), M. Hlinka (+469), L'Kekely (+397), P. Krug (+397), V. Kuzmichev (+346), M. Garcia (+339), M. Minski (+312), and V. Tarasiuk (+244) added more than 200 studies to their oeuvre. Pavel Arestov also headed this list between HHdbIV and HHdbV!

Table 2: The total number of studies per decade in HHdbVI.

1881-1890	610	1951-1960	7,374
1891-1900	929	1961-1970	8,032
1901-1910	1,910	1971-1980	10,824
1911-1920	2,253	1981-1990	11,036
1921-1930	6,953	1991-2000	9,610
1931-1940	6,368	2001-2010	9,801
1941-1950	5,578	2011-2020	9,782

The numbers of studies per decade gradually increased except for the decade with WWII (see Table 2). Since the 1970's on average approximately 1,000 new studies were published each year. As also "new" older studies are included and versions of older studies continue to appear, probably the 100,000 mark will be passed with HHdbVII.

Some people wonder why I do not “simply check” all the studies in my database by computer when I include them in my database, or do that in retrospect. Apart from the work involved (it would take several years just to check every study at a rate of one per 5 minutes and working on this for several hours per day) I would have to repeat this with every generation of hardware, software and EGTB. This would leave me no time to add new studies to my database. No less than 35% of the studies in HHdbVI seem to be cooked (Table 3). It must be noted that it is hardly an exception that, with contemporary facilities, also claims/cooks are refuted, making the study sound again. I have decided to continue to include unsoundness claims in my database, despite the fact that almost anybody is able to check the soundness of endgames studies today. But, especially for organizers for solving events, I underline that studies which are not reported to be unsound in my database, should be thoroughly checked before using them in your event. Of course, if you do find a problem in a candidate study, be sure to let me know.

Table 3: Statistics on cooks and corrections in HHdbVI

Total	93,839	(c)	6,348
U1	8,285	(m)	854
U2	16,696	(v)	2,696
U3	11,802		
U4	378		
U5	72		
Sound	61,395 (65%)		

Personal profile

Dr. Harold van der Heijden (b. 1960) is one of the world's leading experts on endgame studies. He is: chief editor of the famous international magazine **EG**, FIDE master of chess composition (endgame studies), FIDE judge for endgame studies, was spokesman of the endgame study subcommittee of the WFCC, author of two books about endgame studies, and collector of books with endgame studies.

Professionally, he is in charge of a veterinary R&D-laboratory. He is married and has two sons (31 and 28).

FAQ

Q: Who designed that beautiful HHdbVI logo?
A: Nanja Toebak, graphical designer and famous for her book covers and logos. www.nanjatoebak.nl

Q: As I already have HHdbV, is it possible to obtain only the new studies of HHdbVI?
A: No. HHdbVI not only has many new studies, but also the solutions or information of thousands of studies in HHdbV have been updated.

Q: I am a registered user of HHdbV (or previous editions). Do I get a discount on HHdbVI?
A: Sorry, no. Only very recent buyers do (and were informed when they ordered HHdbV). Since we update every 5 years, it means that you only pay 11 EUR per year.

Q: Why do you include unsound studies in the database?
A: Not only to make the collection of published studies as complete as possible, but there is another obvious reason: the flaw often is discovered (much) later. When one comes across the study in the original or in a secondary source there is no mention of a flaw, and would be included as a sound study. All studies that were reported to be unsound are labelled.

Q: Are the studies in HHdbVI which are not labelled to be unsound, always correct?
A: No. Unlike for chess problems, computer checks of endgame studies very often do not allow a final conclusion. Studies with limited material (<= 7 men) could be checked against endgame table databases (EGTB), but still caution is necessary (second solutions or duals could only be waste-of-time duals, and the tester must inactivate the 50-move rule). When you want to use a study, e.g. for a solving event, make sure you examine it thoroughly and use contemporary hardware and software.

Q: There are some "endgame studies" in HHdbVI that actually are chess problems. Why are those included?
A: These chess puzzles were published with the stipulation "Win" (and often these puzzles are also correct as an endgame study). Later when turns out that it is a chess problem instead, the original stipulation is added to the database. Chess problems that were never presented as endgame studies are not included.

Q: What is the purpose of including the GBR-code in the Black field?
A: It is convenient to query the database for certain endgame studies. For instance, one sees a study by Kasparyan with the wK at a1 and the bK at h8 in the initial position, and wants to know it if is present in the database. Then the query is: White: "Kasparyan" and Black: "?a1h8". It will result in 3 hits. Or, you want to have list of all rook endings. Query Black: "?0400". 3243 hits.

Q: What is the best software to access HHdbVI?
A: Any PGN reader can be used to browse the studies (some freeware PGN readers only allow you access to a limited number of "games"). Of course, commercial chess database software usually has more advanced database options. Finally, Chess Query Language (CQL) is freeware and is by far the most sophisticated software (and was especially developed for HHdb). However, it is aimed at advanced (study and computer) users.

Q: The database is provided as a zip-file (hhdbvi.zip), but my database software cannot access it. What should I do?
A: A zip-file is a compressed file which holds a single PGN-file that is a standard format for most chess software. It is adviced to backup the zip-file (e.g. on an external disk) before unpacking it. This also allows you to go back to the original file after you accidentally deleted endgame studies from the database. To unpack, use Windows (file) explorer to navigate to the file, right-click on it, and select "unpack all" (unzip all) and navigate to a folder where you keep your chess data. In the chess software, you select "open database", navigate to the folder and select hhdbvi.pgn. Sometimes it is necessary to set the database type/extension to PGN.

Q: I attempted to download the database, but I do not see it. I tried to enter the download code again, but cannot download it any more. What must I do?
A: The database is provided (downloaded) as a compressed file: hhdbvi.zip Use Windows (file) explorer to go to your download section (downloads). If you see it there, have a look at the previous Q&A. If the file is not there, please contact us. We are able to check whether the database was downloaded or not. We will guide you through the downloading process after re-activating the download code (a mistake often made is to "open" the file upon downloading instead of "saving" it). In case the problem cannot be solved easily, we have a possibility for you to download a PGN-file instead of a ZIP-file.

Q: Am I allowed to send parts of the database to my chess friend?
A: No, the user licence is strictly personal. However, if you send no more than 500 endgame studies in total to your friends, that is o.k. Please be fair to us and keep the agreement.

Q: I want to buy a user licence for my chess club/society. Would that be possible?
A: No, we only sell user licences for individual people. Obviously, we could offer discounts to collected orders. Please contact us.

Q: Is it also possible to use the database with other operating system than Windows?
A: Yes, as long as you are able to unzip the file and have chess software that is able to handle PGN-files.

Q: There is a new error code: U5 indicating an "illegal initial position". What does that mean?
A: A convention (the so-called CODEX) demands that the initial position of an endgame study could have appeared during an over-the-board game. If that is not the case, the initial position is illegal and the study is considered to be flawed. Sometimes it is extremely complicated be certain that a position is legal. An interesting example is: HHdbV#85542 in which the wBh8 must be a promoted piece, since the wPb2 and wPd2 indicate that the white bishop from c1 did not play (and was capture by a black piece on c1). But White still has eight pawns, so no promotion has occurred.