fritz 17
LOG OFF
DERAMATEUR
QUIT
FRITZ
EASY GAME
ENTER & ANALYSE
CLASSIC MENU
DATABASE
PLAYCHESS
PLAYCHESS.COM
WATCH LIVE GAMES
PLAY BULLET
PLAY BLITZ 3 MIN
PLAY BLITZ 5 MIN
WATCH BEST BLITZ
ONLINE APPS
VIDEO PORTAL
TACTICS
OPENINGS
CLOUD
LIVE DATABASE
CHESS NEWS
SHOP

Fritz 17

Content

0

Teil I First steps 10

1 Introduction ... 10
2 Program Activation ... 11
3 System requirements ... 13
4 The starting screen ... 14
5 Login ... 19
6 Playing a game ... 20
7 Help and coaching ... 24
8 Levels of skill ... 25
9 Value of the pieces ... 26
10 Position setup ... 27

Teil II General operation 29

1 Ribbons ... 29
2 Docking Windows ... 32
3 Standard Layouts ... 35
4 Window Pane Icons ... 36
5 Board design – 2D board ... 37
6 Board design – 3D ... 40
7 3D boards with Direct X 11 ... 43
8 3D board – Settings ... 44
9 3D board – Material ... 45
10 3D board – Render options ... 46
11 3D board – Info ... 46
12 New board sounds ... 47
13 3D Boards in Fritz 17 ... 47
- 3D Boards in Fritz 17 ... 47
- 3D Raytraced board ... 48
- Options ... 49
- Settings ... 50
- 3D GPU Hardware raytracing (DX12) ... 55

14 Adjust thinking time ... 58
15 Save and load layouts ... 59
16 Options ... 60
- Options – Clocks and Notation ... 60
- Options – Game ... 61
- Options – Multimedia ... 62
- Options – Clipboard ... 64

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Options – Training ... 66
Options – Design ... 66
Options – Language ... 68
Options – Version ... 69
Options - Engine ... 70
User Info ... 70
17 Program windows ... 71
Window "panes" ... 71
Notation window ... 73
Different displays in the engine window ... 74
Clear notation with coloured highlights ... 75
Correcting notation ... 76
Display of the balance of material ... 78
Book window ... 79
Chess clocks ... 82
Engine window ... 83
Kibitzers ... 86
Evaluation profile ... 87
Chatter window ... 88
Openings display ... 89
Window Pane Icons ... 90
18 Move entry ... 91
Chess notation ... 91
Entering moves with single click ... 92
Move Input ... 93
Variations ... 94
Entering moves on the keyboard ... 96
The right mouse button ... 96
Mouse wheel ... 97
Mouse wheel not working? ... 98
Edit and annotate game ... 99
Position setup ... 101
Set Move Number ... 103
19 Keyboard ... 104
Entering moves on the keyboard ... 104
Keyboard input for commentary symbols ... 104
Customize keyboard ... 106
Teil III Reference 107
1 Help during the game ... 107
Help and coaching ... 107
The chess coach ... 109
Hint ... 110
Suggestion ... 110
Rookie ... 111
Explain all moves ... 112
Measurements during a game ... 113
Position tutor ... 114
Engine evaluations beside the chess board ... 114
Mouse ... 116
Dynamic Hints ... 117
Opening Classification ... 118

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Assisted Analysis ... 120
Threat ... 126
The Kibitzer ... 126
Move indicator ... 127
2 Levels of skill ... 128
Levels of skill ... 128
Blitz games ... 129
Long (tournament) games ... 130
Easy Game ... 131
Friend mode ... 135
Playing a Friend Game ... 139
Rated games ... 141
Chess 960 ... 144
Optimise playing strength ... 145
3 The openings book ... 145
The openings book ... 145
The book window ... 147
Extended Book Display ... 149
Book display options ... 150
Book settings ... 151
Tournament move ... 153
ECO chess openings classification ... 153
Copy openings book to hard disk ... 154
Import old book ... 154
Importing games to the openings book ... 155
Extending the openings book manually ... 156
Import analysis into openings book ... 156
Openings book, learning from a database ... 157
Deleting a game from the Book ... 158
Maximum size of the tree of positions ... 159
4 Opening Training ... 160
Start ... 160
Easy game ... 161
My Moves ... 162
Extending your repertoire ... 163
Coloured highlights in the repertoire ... 165
Working with a repertoire ... 167
Standard Repertoires ... 168
Memorising opening variations ... 171
Free Drill ... 173
Viewing your opening repertoire ... 173
Repertoire deletion ... 175
5 Database functions ... 175
The database window ... 175
Preview window ... 178
Games list ... 179
Sorting by columns ... 182
List views ... 183
Player Index ... 184
Tournament index ... 185
Commentator index ... 186
Source Index ... 186
Team Index ... 187

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Openings Key ... 188
Game Title ... 189
Theme Keys ... 189
Load and replay games ... 190
Save game ... 192
Saving games ... 194
Save Mask Annotators/Team ... 197
Copying Games ... 198
Players database ... 199
Autosave database ... 200
Search for games ... 200
Search for names, tournaments, etc. ... 201
Search for positional fragments ... 202
Search for game commentary ... 204
Search for medals ... 205
Search for Time Controls ... 206
Search booster ... 207
Find position ... 207
Archive database ... 208
Install on Harddrive ... 208
Backup database ... 209
Database text ... 210
Database formats ... 210
ChessBase Magazine ... 211
ChessBase ... 212

6 Analysing games ... 213

Infinite analysis ... 213
Enter & Analyse ... 213
Evaluation of the position ... 218
Extended Engine Information ... 218
Full analysis / Tactical Analysis ... 220
Example Tactical Analysis ... 224
A tip for Full analysis ... 226
Deep position analysis ... 227
Blundercheck ... 229
Commentary symbols in the Fritz Blunder search ... 231
Compare analysis ... 232
Shootout ... 233
Automatic analysis of server games ... 234
Blitz & train on Playchess.com ... 235
Training questions ... 237
Shared Analysis ... 237
Monte Carlo ... 239
The Kibitzer ... 241
Visualize Search ... 242
The Analysis board ... 242
Variation board ... 244
Chess problems, mate search ... 245
Calculating Elo ratings retrospectively ... 246
Let`s Check ... 246
Description ... 246
LiveBook ... 248
Start Let`s Check ... 250
How should a game be analysed with Let's Check? ... 253

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What do the green, blue and red letters for the depth mean? 254
Why does the progress bar often jump back after reaching 100%? 254
Let's Check Server Statistics 255
Let's Check context menu 255
Information in the Chat window 256
Commentaries in the LiveBook 258
Using the LiveBook as the Openings Book 260
Networked Analysis 262
Game analysis with Let's Check 263
Honours Lists 264
Speedindex 265
Common questions Let`s Check 265
Is my analysis always sent to Let's Check? 265
Can Let's Check be used anonymously? 266
What does it cost? 266
What difference does the power of my computer make? 266
What engines are allowed? 266
Can variations and evaluations be manipulated? 266
Can senseless moves be input and analysed? 267
How are the Let's Check honours lists created? 267
What do the two diagrams in the LiveBook window mean? 267
Can a text commentary be edited or deleted? 268
Engine-Cloud.com 268
Server Engine-Cloud.com 268
List View 269
Board window with provided engine 273
Engine connection 275
Using a Cloud Engine privately 275
Public Cloud Engines 276
Offering a public Cloud Engine 279
Summary of the auction system 283
Hints 286
Use of Cloud Engines 286
Providers of Cloud Engines 287
Examples 288
Cloud Engines on Playchess.com 288
Playing games 290
Let's Check 291
Engine matches 292
Solve Test Sets 294
Infinite Analysis with a Cloudengine 295
Settings dialog for providers 297
Engine 297
Computer 298
Revenue 299
Private Users 301
Ignored Users 301
Bid Dialog 302
Ducats 303
Rating List 303
7 Training 304
Calculation Training 304
Assisted Calculation 306
Blindfold play 309

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Opening Training ... 311
Endgame Training ... 312
Tactical Training ... 313
Mate Training ... 315
Theme Blitz ... 316
Extend training database ... 317
Delete Training Results ... 318
8 Commentary ... 319
Edit and annotate game ... 319
Text commentary ... 321
Commentary symbols ... 322
Medals ... 324
Elements of commentary ... 324
Graphic commentary ... 327
Toolbar in the notation ... 328
Exporting a game ... 328
Chess films ... 330
Spoken comments via microphone ... 332
Chess Media System ... 332
Enhancement to the Chess Media System ... 334
9 Computer chess ... 334
Engines ... 334
Fritz 17 engine ... 336
Fat Fritz ... 336
Fat Fritz Engine ... 336
Summary ... 338
The “OpenCL” version ... 338
Different versions ... 339
The evaluation display in Fat Fritz ... 339
Engine parameters ... 340
Load Engine ... 340
Advanced ... 342
Settings Engine Window ... 343
Switch off engine ... 343
UCI Engines ... 344
How to deinstall an UCI Engine? ... 346
Set UCI Priority ... 346
Hash tables ... 347
Clearing hashtables ... 349
Engine management ... 349
Engine matches ... 350
The Nunn Match ... 352
Engine tournaments (with humans) ... 353
Process test set ... 356
Compare analysis ... 358
Permanent brain ... 358
Expected move ... 359
Engine parameters ... 360
End Game Table Base support ... 364
Extended Options in the Engine Window ... 365
Endgame databases ... 365
Syzygy EGTB ... 369
Syzygy Endgame Turbo Tip ... 372
Copy endgame databases to hard disk ... 372

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Benchmark ... 373
Engine Interface ... 374
10 ChessBase Web Apps ... 374
Startscreen ... 374
Information about the ChessBase Account ... 376
How to register with Fritz15 or CB14 ... 376
11 Elo ratings ... 377
Elo ratings and lists ... 377
The Elo start list ... 378
Viewing the Elo list ... 379
12 External hardware ... 380
Connect hardware ... 380
DGT Rabbit Plugin ... 381
13 FAQ ... 381
Copy tree to hard disk not available ... 381
Problems in the display of the list window? ... 382
3D board problems ... 382
Letters on the board ? ... 383
Reference database ... 383
How do I upgrade my program ? ... 384
Admin Tool ... 384
Improve the responsiveness of the computer while the engine runs ... 385
Which Hash Size should I use at various time controls? ... 385
Deep Position Analysis feature ... 385
Examples ... 386
Optimising move entry ... 386
Database search – watch out for small or capital letters ... 387
Displaying thinking time ... 387
Correct promotion! ... 389
Notes on rated games ... 390
Chess training with Theme Blitz ... 390
Fine-tuning openings books ... 391
Alternative piece designs ... 392
Producing opening references ... 393
The move list ... 394
Teil IV Chess rules (FIDE) 395
1 Preface ... 395
2 1: Nature and objectives of chess ... 395
3 2: Initial position on the chessboard ... 396
4 3: The moves of the pieces ... 397
5 4: The act of moving the pieces ... 398
6 5: The completed game ... 398
7 6: The chess clock ... 399
8 7: Illegal positions ... 400
9 8: The recording of the moves ... 401
10 9: The drawn game ... 401
11 10: Quickplay Finish ... 402

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12 11: Scoring 403
13 12: The conduct of the players 403
14 13: The role of the arbiter 403
15 14: FIDE 404
16 A: Adjourned games 404
17 B: Rapidplay 405
18 C: Blitz 406
19 D: Quickplay finishes with no arbiter 406
20 E: Algebraic notation 406
21 F: Visually handicapped players 408

Index **411**

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1 First steps

1.1 Introduction

Playing a game
Levels of skill
Help and coaching
Interface with Ribbons
Load and replay games
Automatic analysis
Let`s Check
Engine Cloud.com
Web Apps
Opening Training

Find more information on ChessBase products at: www.chessbase.com.

The starting screen of the program allows to access directly with a click on your mouse any one of the different ways of using it which are on offer.

The complex program distinguishes strictly between play and analysis functions. Thus the program places the relevant functions in the appropriate menu bar and these allow the user to concentrate on the work he or she wishes to do.

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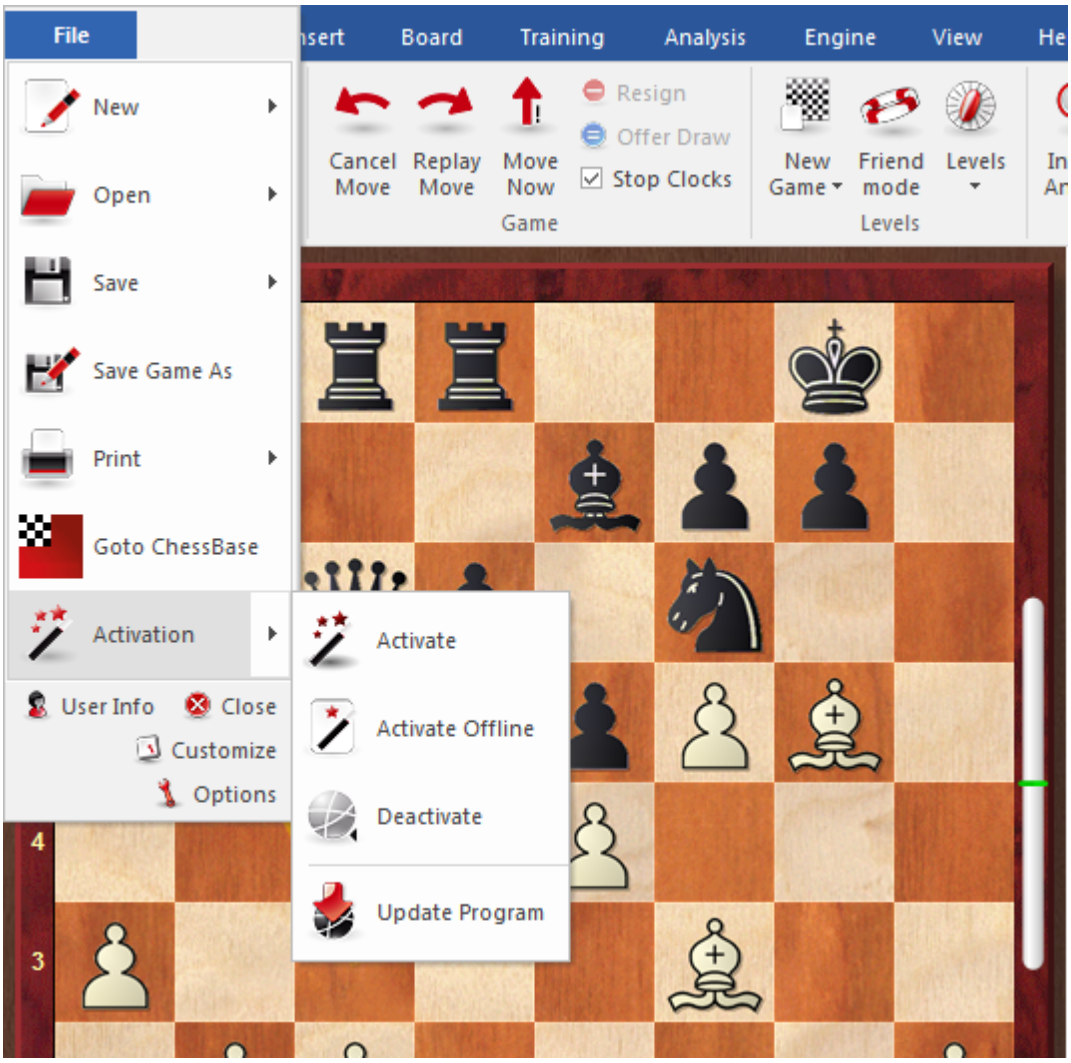
1.2 Program Activation

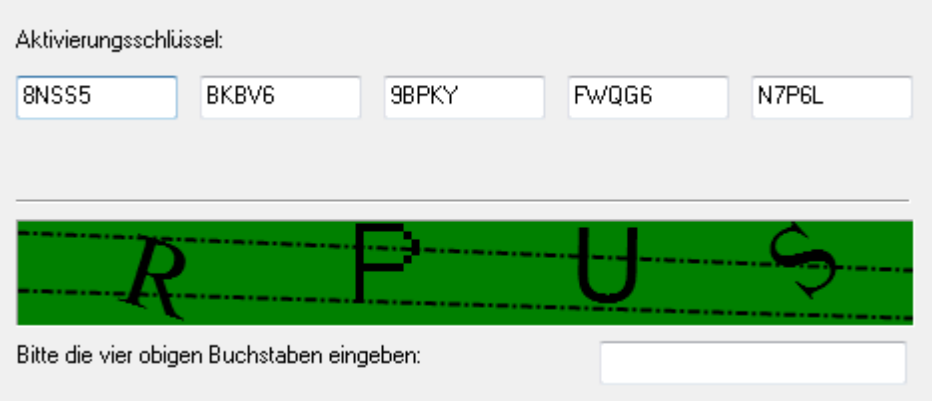
"The program is activated with a serial number.

After entering the serial number you have to register the program on the Internet. In the ***Menu File*** there is an option called ***Activate*** .

If you purchased the download version of the program, you will find the serial number in your shop account together with the installation files.



After selecting this function there is the following dialog:



If a serial number is not already present in the text boxes type the number that you received with the program. The serial number can be used to install the program on a maximum of three computers. If you want to install the program on a new computer, or you want to re-install your operating system, you should first deactivate the current registration online.

After entering the serial number you have to register the program on the Internet. To do this use the ***Menu File*** and click on ***Activate***.

The online activation is necessary to be able to receive things such as free program updates. It is only possible to use "Let's Check" in the Online Analysis after activationg the program.

Information about ChessBase Admin Tool ....

If you want to install the program on a new computer you must first ***deactivate*** the previous online registration. The reason for this is the hardware recognition. When the program is registered the server stores information about the system configuration of the user's computer.

The deactivation is carried out with the *Menu File - Activation - Deactivate*. This increments a counter, so that the program can now be registered on a computer with a different system configuration.

Note: If you make significant changes to your computer's system configuration you must also deactivate the program and activate it again.

Manual Activation

It is also possible to register the program on a computer without an Internet connection (for instance a laptop or a second computer). To do this you have to find the hardware key of the computer not connected to the Internet.

Start Kommodo and select the option „Activate Offline" from the user menu.

After entering the serial number the program displays your computer's hardware key.

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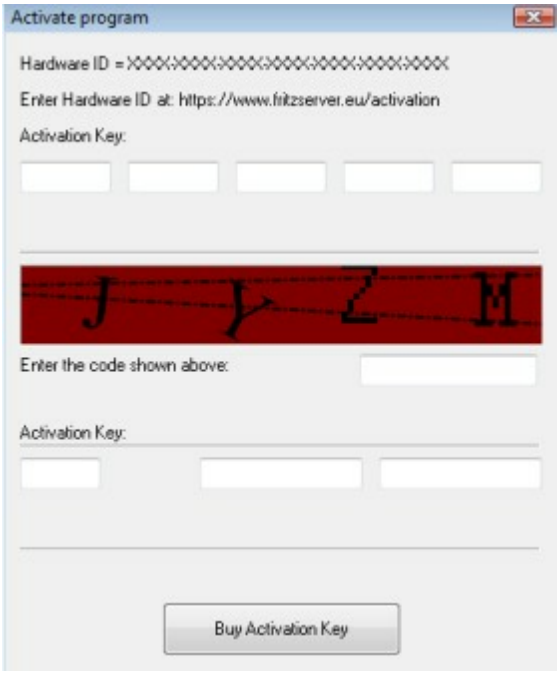

Make a note of this hardware key, and then use a computer with an Internet connection to access the web page:

https://www.fritzserver.eu/activation/

Enter the hardware key and the security code. The web page will then give you an activation key, which you should carefully make a note of. Enter the key and the security code (here SDGX) in the activation menu of your computer without an Internet connection and click on OK.

If you have entered the details correctly your program will be successfully activated.

Playchess.com

You can use the Kommodo serial number for one account on Playchess.com. Enter it under *Account - Enter Serial number* and get one year of basic access.

1.3 System requirements

Minimum (without Raytracing and FatFritz): Dual Core, 2 GB RAM, Windows 7 or 8.1, Di-rectX11, graphics card with 256 MB RAM, DVD-ROM drive, Windows Media Player 9 and Internet access.

Recommended: PC Intel i5 or AMD Ryzen 3 (Quadcore), 8 GB RAM, Windows 10 with 64-Bit (up-to-date version), NVIDIA RTX graphics card with 6 GB cache and up-to-date drivers (with older NVIDIA cards or other graphics cards FatFritz is subject to clear dips in performance).

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(On the CPU the engine only works for demo purposes), Windows Media Player 11, (DVD-ROM drive) and Internet access.

System requirements for **ChessBase Account**: Internet access and up-to-date browser, e.g. Chrome, Safari. For Windows, OS X, iOS, Android, Linux.

1.4 The starting screen

The starting screen of the program allows to access directly with a click on your mouse any one of the different ways of using it which are on offer.

The complex program distinguishes strictly between play and analysis functions. Thus the program places the relevant functions in the appropriate menu bar and these allow the user to concentrate on the work he or she wishes to do.

The heading "***Easy game***" makes it possible for you to play a game against a Fritz which is suited to your playing strength.

Choosing "***Enter & Analyse***" takes you directly to the analysis modes of the program. Generally speaking, the easy to understand structure of the starting screen helps you to get directly to the way in which you wish to use the program, e.g. the chess server.

Generally speaking, the easy to understand structure of the starting screen helps you to get directly to function you wish to make use of, e.g. the chess server.

Classic Menu provides you with the view to which you are accustomed from previous versions.

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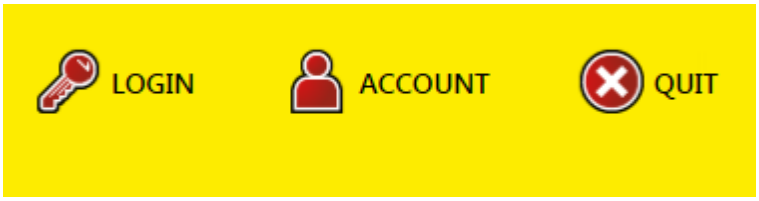
Access to the Web Apps is also possible directly from the starting screen.

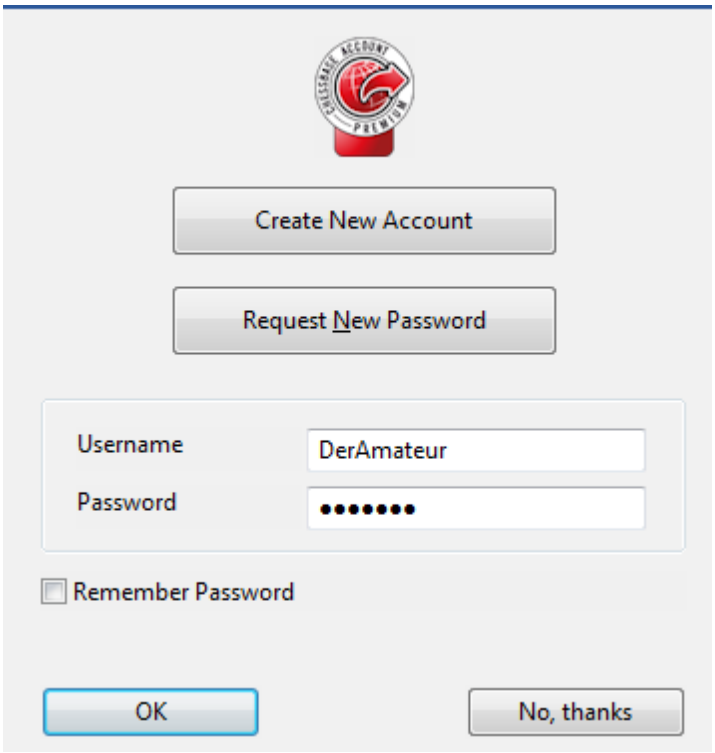
Please note that you sign on permanently to make use of the online function!

Login

Many of the web based functions of the program require you to have a registered ChessBase Account. You can register for such a ChessBase Account with the serial number of the program or you can use the latter to extend the validity of an existing account. So that the user does not constantly have to enter login data, the program offers the option of a permanent login for the use of the web-based services. One typical example would be the use of the chess server.



This launches the following login dialog.



"*Create new player name*" allows new users to create a new player name.

The status of your ChessBase Account is also displayed in the upper part of the screen.

© ChessBase 2019

With a click on your player name you can directly change the settings on your account. "***Remember password***" makes it easier whenever you restart the program, since you will not have to enter your access data on each occasion.

After logging on, you can simply try out whether the login has worked. Clicking on "***Playchess.com***" in the bottom left of the screen starts access to the chess server with your user name.

So, unlike in previous versions of the program, there is no need for you to input your access data afresh because the login now follows on "centrally".

After logging on, you can simply try out whether the login has worked. Clicking on "*Playchess.com*" starts access to the chess server with your user name.
This principle is repeated in those windows which require a login to a server.

From the starting screen these are specifically:

1. Chess server: login follows automatically. You can get going straight away. Here the starting screen is different according to particularly popular usages and playing modes.

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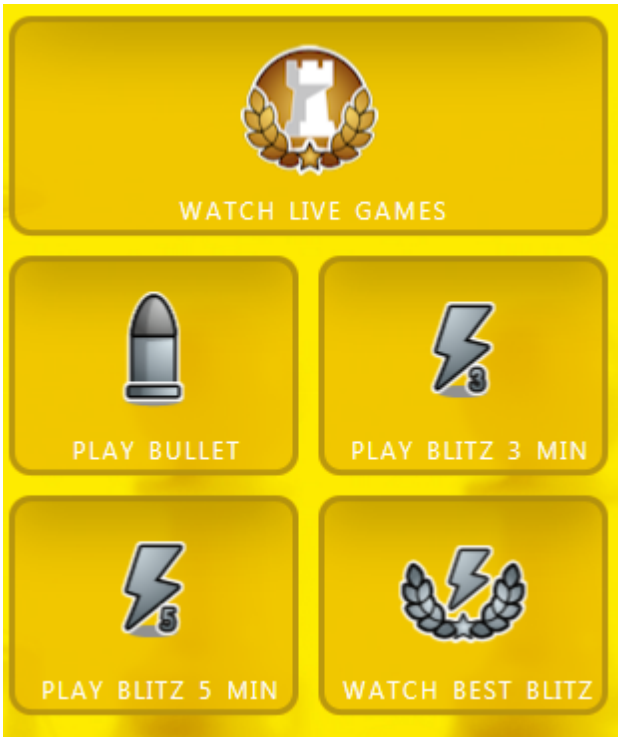

"Follow live games", for example, allows you direct access to the most important grandmaster games currently being broadcast!

2. Access to the available WebApps. Here too login is done automatically by clicking on the desired App.

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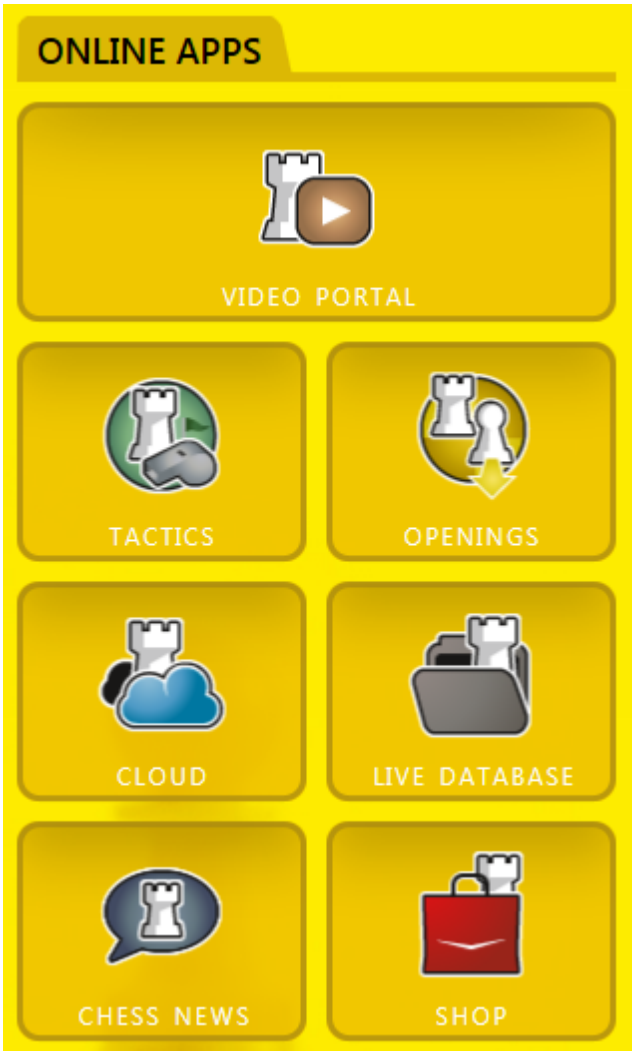

Information about the ChessBase Account

In order to use our Web Apps it is absolutely necessary to have a ChessBase Acount.

So every user who would like to make use of this service must set up a ChessBase Account. With your program you receive premium access.

Compared to our PC programs the Web Apps have the great advantage that these applications can be used independent of your computer's operating system, no matter whether it is a computer with Linux, a MAC or a mobile device (smartphones, tablets). Any functioning internet access and a browser are all it takes for you to be able to make use of the various programs. Like that you can be doing effective chess training at any time when you are away from home. Play chess against other people or against a chess program, follow live chess, save your own chess data and openings, work on games, analyse, etc. You can carry out all these functions at any time and from any location with a ChessBase Account!

© ChessBase 2019

1.5 Login

Many of the web based functions of the program require you to have a registered ChessBase Account.

You can register for such a ***ChessBase Account*** with the serial number of the program or you can use the latter to extend the validity of an existing account.

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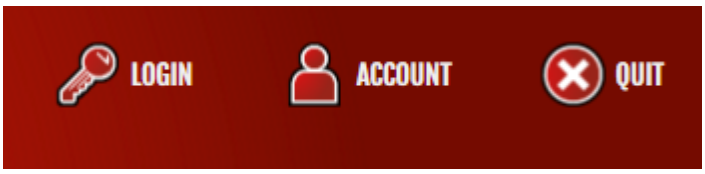
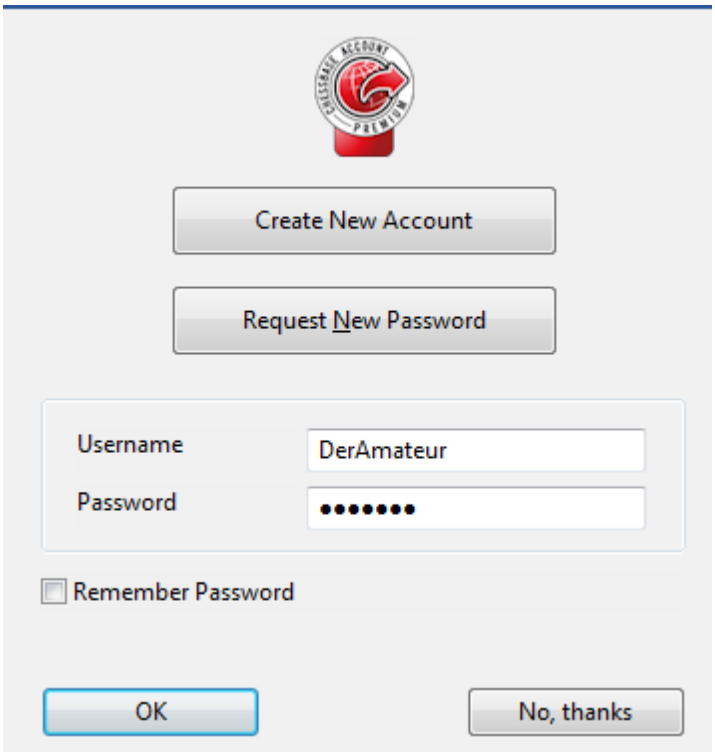


This launches the following login dialog.



"*Create new player name*" allows new users to create a new player name.

If you already have an account, simply enter your login data.

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The status of your ChessBase Account is also displayed in the upper part of the screen.

With a click on your player name you can directly change the settings on your account. "Remember password" makes it easier whenever you restart the program, since you will not have to enter your access data on each occasion.

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So, unlike in previous versions of the program, there is no need for you to input your access data afresh because the login now follows on "centrally".
After logging on, you can simply try out whether the login has worked. Clicking on "playchess.com" starts access to the chess server with your user name.
This principle is repeated in those windows which require a login to a server.

From the starting screen these are specifically:

1. Chess server: login follows automatically. You can get going straight away. Here the starting screen is different according to particularly popular usages and playing modes.

"*Follow live games*", for example, allows you direct access to the most important grandmaster games currently being broadcast!

2. Access to the available WebApps. Here too login is done automatically by clicking on the desired App.

1.6 Playing a game

After you install the program it is automatically set to play games against you.

In earlier versions of the program there were different handicap, friend and sparring settings in order to provide the user with an opponent capable of being beaten by a human being. From the starting screen of Fritz 16 you can set in motion all levels of play in which the engine's playing strength is reduced under "Simple games" or via "*Classic Menu* ".

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So you can immediately start entering moves.

Under the section headed Fritz is where you start the chess program, the analysis mode or if you wish the classic menu.

Playchess links you directly to our chess server. The dialog offers you the possibility for direct access to specific functions of the server. For example, from the starting screen you can go directly to live broadcasts.

Database opens the database module of Fritz with the dialog for the selection of databases.

ChessBase Online Apps The various buttons on the right-hand side of the starting screen provide immediate access to our web-based apps which can function in any common browser. Make use of the option for free tactical training, saving your own games on the cloud server or for direct browser access to the large online database!

Menu File New game

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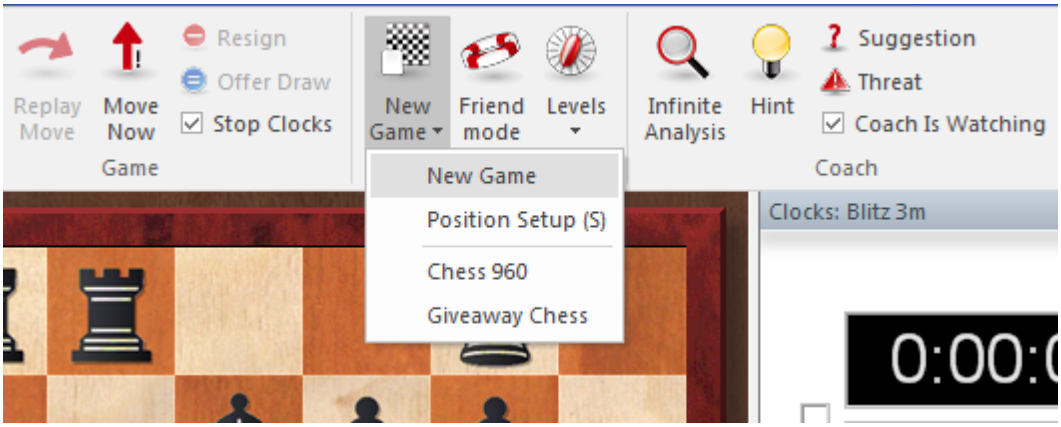

Note: Before starting a game is to be noted that the program is set after the first start on the Infinite analysis mode. Experience has shown that most users set the program for analyzing your own games. So you have to select a Playing level first before you can play directly against the program.

The are reset in the initial position and the program is ready to play against you. You can select from a number of different kinds of games: blitz, long (tournament) games, friend mode, etc. In addition there are chess variants like Giveaway (you have to try to lose all your pieces) and Chess 960

Pressing ***Ctrl-N*** will start a new game of the kind you last played.

- To move a piece, move the mouse onto it, click and hold down the left mouse key and deposit the piece on a new square. You can also click the piece and then the destination square (or first the destination square and then the piece).
- To castle, move only the king two squares to the left or right. The rook will automatically be moved to its square.
- If an "en passant" capture is possible you should give the file on which it can be made.
- When you promote a pawn the program will offer you a choice of pieces.

The program only accepts legal moves. If you try to execute a move that does not conform to the rules of chess, the piece will simply jump back to its original square.

The program will automatically reply with its own move after a few seconds.

To take back a move click the takeback button
in the menu bar or below the board

You can also use "Undo move" or press Ctrl + <= (Ctrl cursor left)

You can offer a draw or resign in the "Game" menu, if the situation is completely hopeless.

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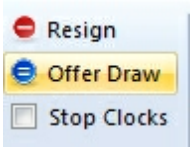
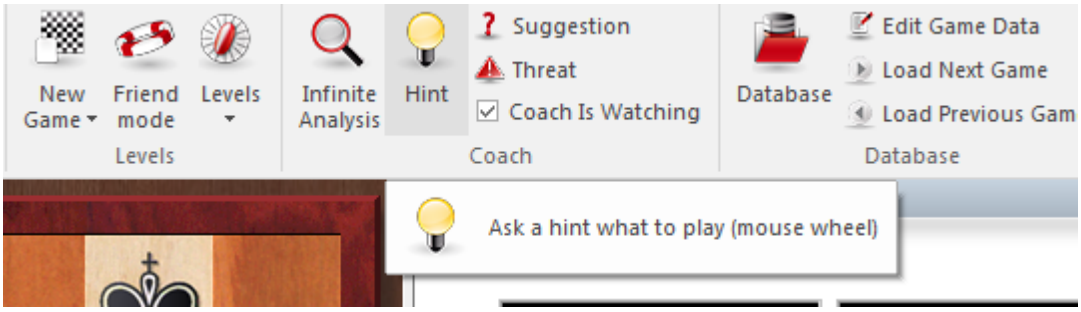


Help

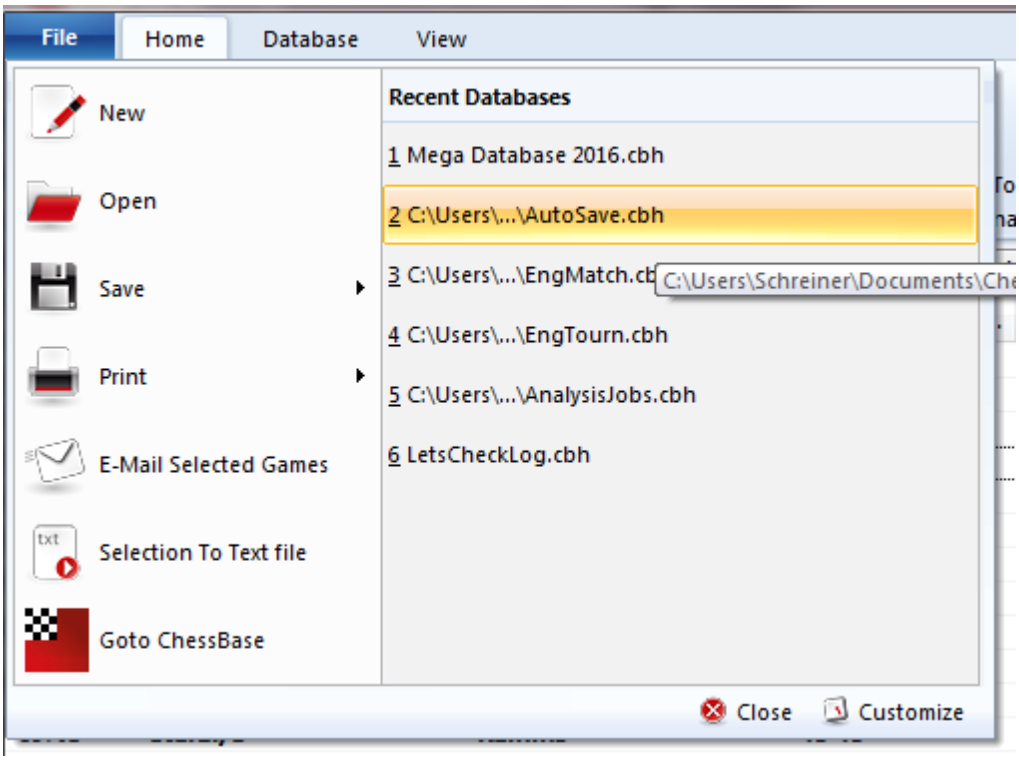
This program is a tough cookie, even for strong grandmasters. You will probably want to use some of the chess help available during the game. You should also try the special Friend mode, in which the program tries to play at exactly your level of skill.



There it can play like a real moron.

Autosave

All games are automatically saved in the database called Autosave, which can be found in the directory My Documents\ChessBase. It is also in the dropdown list of the database window.



All the games played on the chess server will be automatically saved in a file called

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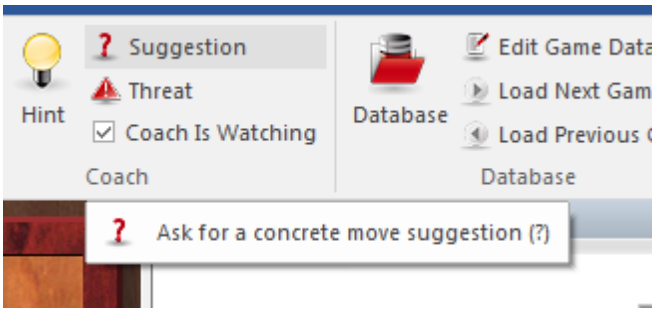
MyInternetGames.

1.7 Help and coaching

During a game you can ask the program for advice:



Hint	The program will analyse the position and offer advice
Suggestion	The program will suggest a move
Threat	Displays the direct threat
Explain all moves	Shows a list of all legal moves and what they achieve
Position tutor	Generates a brief strategic description of the current board position.
Kibitzers	Opens a new window with a different engine which you can consult
Expected move	Displays which move the program is currently expecting
Dynamic Hints	Possibilites for attack and defence manoeuvers are shown for every square when you move the mouse cursor over it
Visualize Search	It uses graphics to display possible plans for both sides on the Board
Measurements	The „hotness" display shows how complicated and tactically „hot" the position is.
Let`s Check	Every position that has been analysed by anyone at any time is voluntarily saved on a server.
Assisted Analysis	offers the user either when entering moves or when playing through a game valuable hints about the tactical consequences of a possible move.
Engine evaluations	When you are playing through and analysing a game the chess program offers useful help and guidance on the evaluation of the current position on the board. You will find

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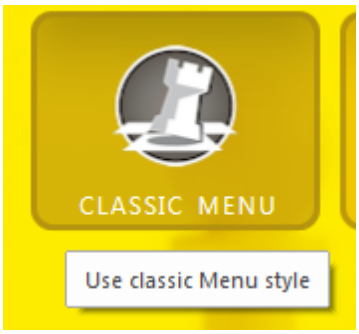
the display right next to the graphic chess board.

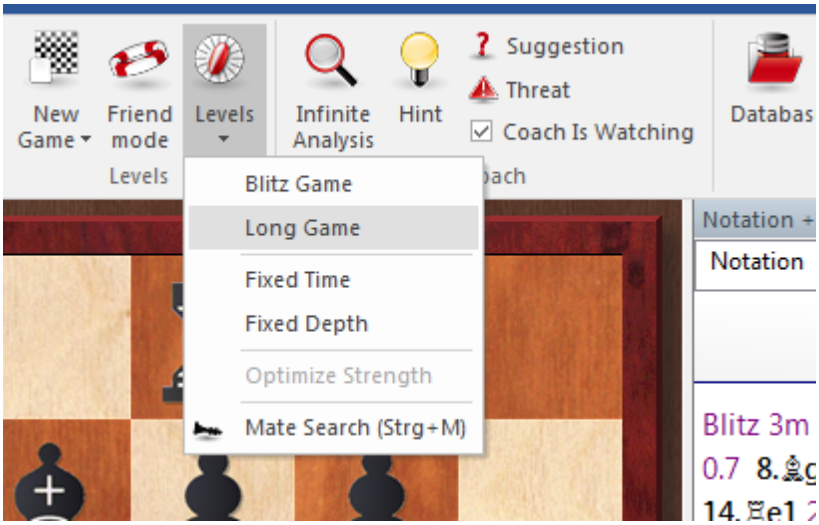
1.8 Levels of skill



Full-strength playing levels

- Blitz games
- Long games

In both these levels it is advisable to use the function "optimise playing strength" if you want to get the most out of the program.



You can also use *Training* *Rated game* and play serious tournament games in which the program will give you an objective assessment of your playing strength.

Reduced playing strength level

- Friend mode

Apart from the above, the program can be set to play games with a fixed time limit or search depth per move. Click Game – Levels to reach these settings.
Chess variants

- Givaway chess
- Chess 960

Apart from the above, the program can be set to play games with a fixed time limit or search depth per move. Click *Game* *Levels* to reach these settings.

1.9 Value of the pieces

The value of the chess pieces is a very elementary and essential strategic criterion. In top games even a material difference of a single pawn can be decisive.

The piece values are calculated in pawn units:

Piece	Value in pawn units

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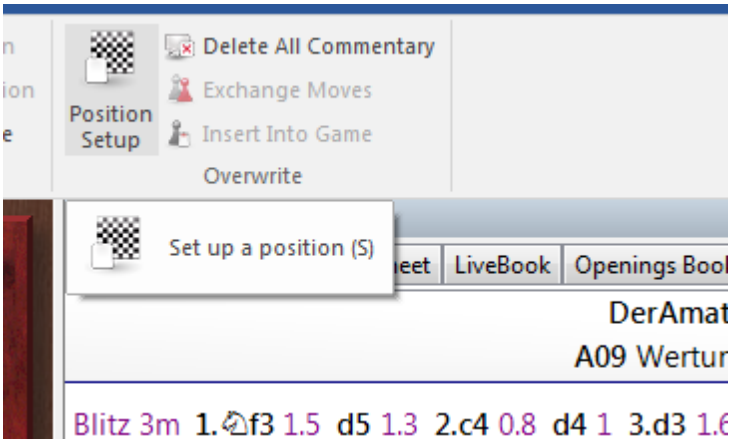
Pawn	1.0
Knight	3.0
Bishop	3.0
Rook	5.0
Queen	9.0

The program give its positional evaluation in pawn units, always from the point of view of White. If the program is displaying a value of +1.30 this means that it considers the white position to be better by the equivalent of 1.3 pawns. If White is actually a pawn up then the additional 0.3 is the result of positional considerations (mobility, deployment of pieces, king safety, pawn structure, etc.). A display of –3.00 means that White is a piece down – either a bishop or a knight, which are both equivalent to three pawns.

1.10 Position setup

Insert Position setup



This opens a dialog box in which you can enter a completely new position.

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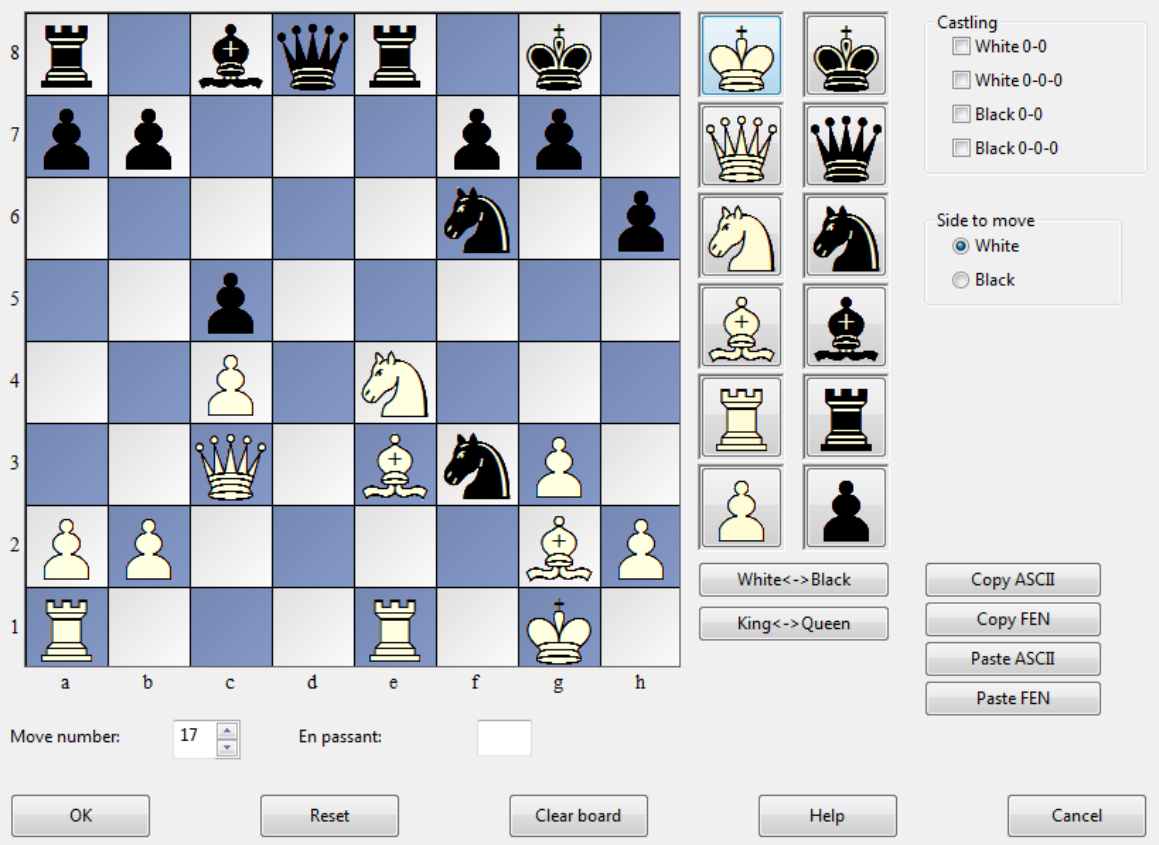

The operation is quite simple:

- Choose a piece type in the columns on the right and put one or more of that piece on the board by clicking on squares. The right mouse key changes the colour of the piece deposited, a second click deletes the entry. You can also drag pieces off the board to delete them.

- You can drag a piece that is on the board from one square to another, holding down the mouse key in the process.

- You can clear the board completely or reset the starting position.

- The buttons "Copy/Paste ASCII", "Copy/Paste FEN" are used to enter diagrams that exist in one of the common text description forms. Mark the position in a word processor or browser and press Ctrl-C to copy it into the Windows clipboard. After that you can switch to position entry and click the paste button. The position will appear on the board. The copy buttons will copy a text description of the diagram into the Windows clipboard. FEN stands for "Forsyth-Edwards Notation", and the similar EPD for "Extended Position Description".

Example of a ASCII position description:

wKd6,Rc8,g8,Pg2, bKh7,Qe1,Pd4,e3,h5,h6
Example of the FEN description of the same position:
2R3R1/7k/3K3p/7p/3p4/4p3/6P1/4q3 w - - 0 1

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You can copy either of the above descriptions out of the Help file and paste it in the position setup.

After you have set up the position you should, if relevant, give the castling status of each side. In a few cases it may be important to know that the side to move can take en passant. Type in the file on which the capture can be made. You can also tell the program which side has the move and whether it should start counting moves from 1 or a higher number. Click "OK" to end position setup.

Mirroring the position

These buttons below the pieces allow you to change the postion in two ways:

- White <-> Black mirrors the position vertically, i.e. between white and black, and changes the side to move.
- King <-> Queen mirrors the position horizontally, so that the pieces on the left are moved to the right and those on the right to the left.

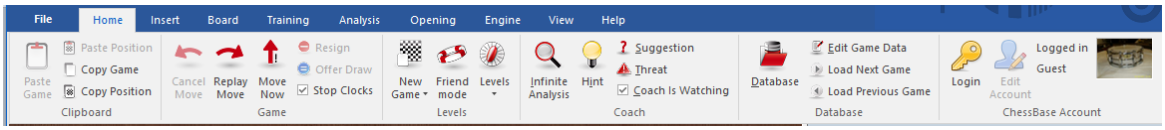
2 General operation

2.1 Ribbons

"

The program offers a design based on the guidelines of the „Microsoft Fluent UI". The so-called ribbons were first implemented by Microsoft in Office 2007. The ribbon, also called a „band", is a graphical display concept which combines the elements of menus and icons. This concept offers many advantages when using a complex program.

Note: According to the mode you are in, different ribbons are displayed. You can be sure that the choice of ribbons is suited to the area you are in.



This means the end of the days in which users had to click through levels of menus and submenus to find functions. Instead of this simple icons are displayed for the program functions depending on the context the program is currently in. In the window's header words are listed – just as in traditional menus – which represent groups of commands, such as *Start*, *Insert* or *Board*.

However, clicking on a word doesn't open a menu, it opens a list of icons that represent the relevant commands. Each „menu" has its own list of icons.

The ribbon takes up more room on the screen than the classical combination of menus and icons. The symbols are grouped within the ribbon depending on the monitor's resolution and the size of the window. Since additional commands can be added to the ribbons it is rarely necessary to use dialog boxes. There is also the possibility to minimize the ribbons. This is done by right clicking on the ribbon and clicking on

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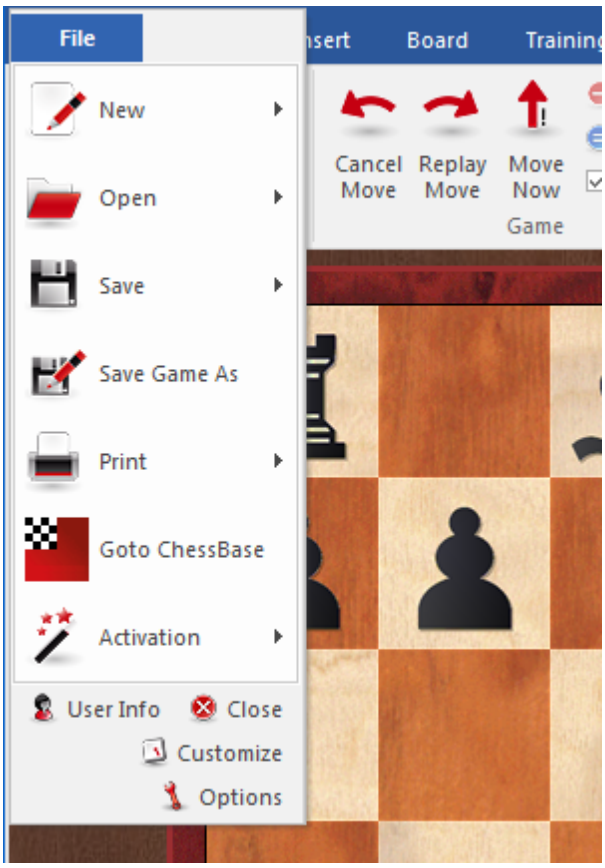
„Minimize the ribbon".

This leaves the command words on the screen, but removes the icon list until they are clicked.

A very important function in this user concept is the ***File menu***.



This menu is used to change important settings and access central functions of the program, such as the options dialog.

A further important component is the toolbar next to the user menu icon. These icons are used to quickly access commonly used functions with a single mouse click.

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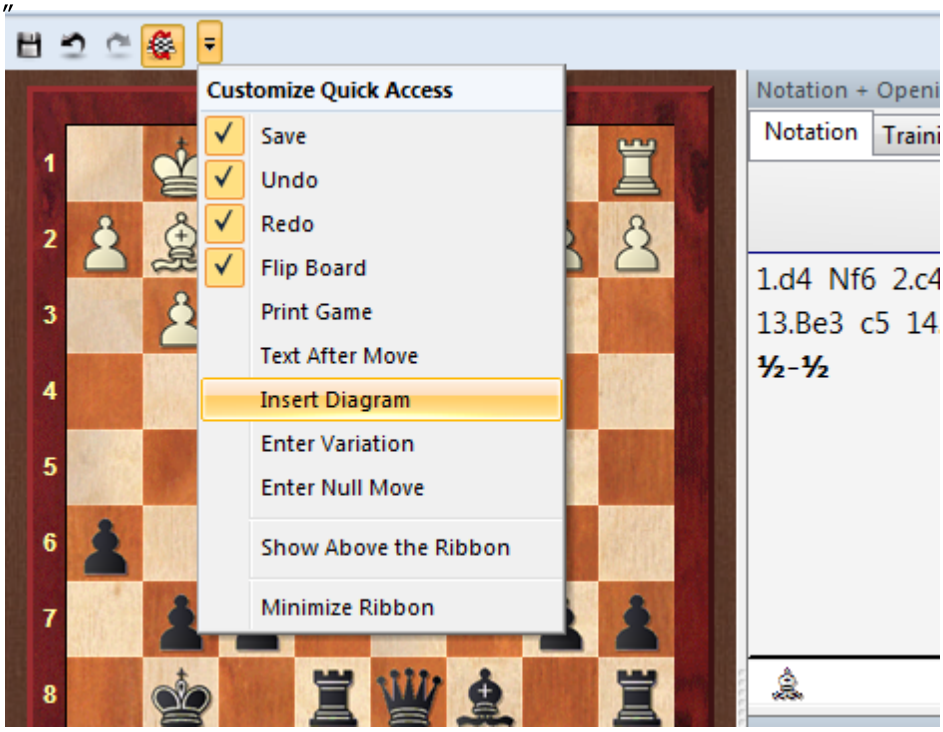
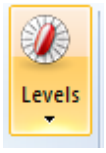


The user can decide whether the quick access toolbar is displayed at the top of the program window or below the ribbon. This option is selected by right clicking on the toolbar.

Add to Quick Access Toolbar allows the user to customise the environment by adding the functions he uses most often to the quick access toolbar.

This user concept offers many advantages in day-to-day work with the program. For instance, many commands can be carried out easily. such as board selection or offers on the chess server. Since the functions are ordered based on how often they are used the operation is quicker and easier.

When working with the program the user should always check if an item is followed by a small arrow.



If this is the case it means that more functions are available.

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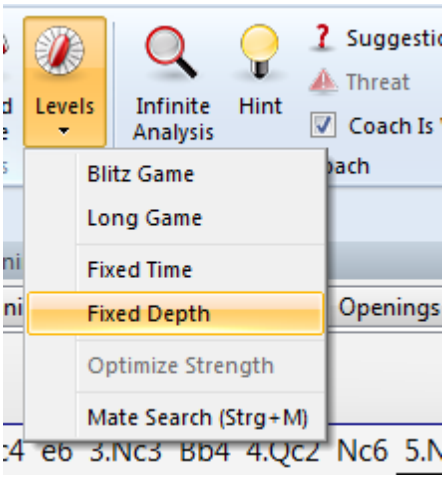

This example shows the selection of the different 3D views. Clicking on the small arrow opens a submenu with additional functions.

Using the ribbons makes it much easier to operate the program. It is true that the new user concept requires the user to adapt himself if he was used to the old menu structure. However, the new user concept is much simpler and many functions are easier to access.

2.2 Docking Windows

The program now offers a new way of docking and undocking windows more intuitively. To do this click on the handle (the top bar) of a pane and hold the mouse key while dragging it round the window. This undocks the window. In the following example the clock has been positioned directly above the board.

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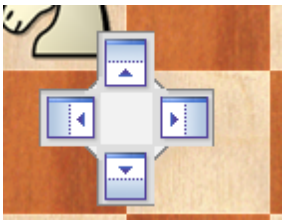
There are now several arrow buttons on the screen. These arrow buttons appear every time you move a window on the screen. These buttons can be used to place the window more accurately.



To dock a window move the mouse over the shaded part of a button while keeping the mouse button held. This will display the new position of the window before releasing the mouse button.

In our example we will move the chess clock window by moving the mouse over the upper arrow button. This will place the clock directly above the board. When you see the shaded blue area on the screen you can release the mouse button.

This places the clock in the exact position which was shaded.

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This method of positioning windows using arrow buttons is easy to use if you remember that the position of the window is always shown by the shaded area next to the arrow buttons. If you practise you will find that you can position windows very quickly.

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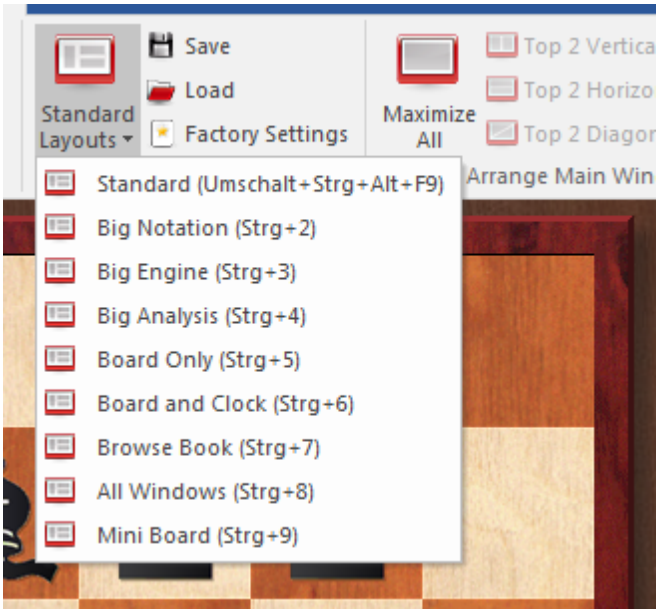
2.3 Standard Layouts

View Standard layouts (layout)



Here you can find a number of preset layouts which are useful in different situations. Whenever you start the program it uses the last layout from the previous session.
Note that if you have "lost" some elements of the board window then Ctrl+8 is a good "panic switch" that opens all the windows that are available.

Layout	Description
Standard	The standard "factory setting" with all the most important windows
Big board	Maximizes the size of the board to fit the current window. The other elements become smaller.
Big notation	The program window is maximised and the notation window enlarged for game replay.
Big engine	The engine window is given maximum space, a small variation board is installed.
Big analysis	A large analysis board is opened, so you can analyse the position.
Board only	All windows are closed, only the board is left. This is especially impressive in "Full screen" mode ("View" menu).
Board and clock	Only the board and the clock
Browse book	Large board and large book window, ideal for

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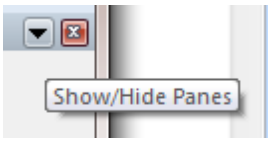
	studying the opening.
All windows	Opens and arranges all important windows, including evaluation profile and chatter.
Mini board	The program window with only the board is placed at the top right-hand corner of your screen.

It is useful to get familiar to the keyboard shortcuts **Ctrl+1**, Ctrl+2, etc. for the layouts you need.

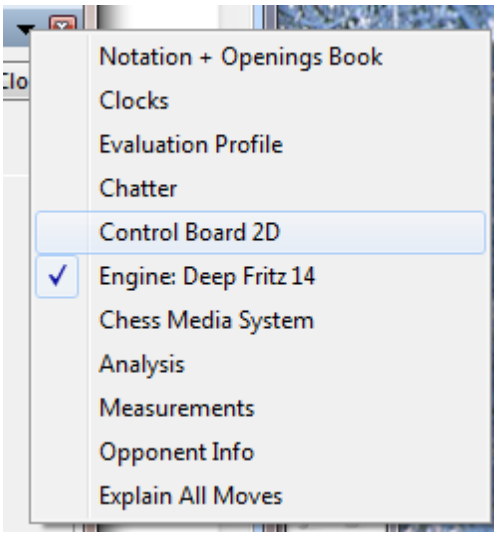
2.4 Window Pane Icons

The program has additional icons for the important window panes.



Clicking on the ***X symbol*** closes the window.

Clicking on the arrow opens a small menu. This menu allows the user to quickly hide or display window panes if and when they are needed.



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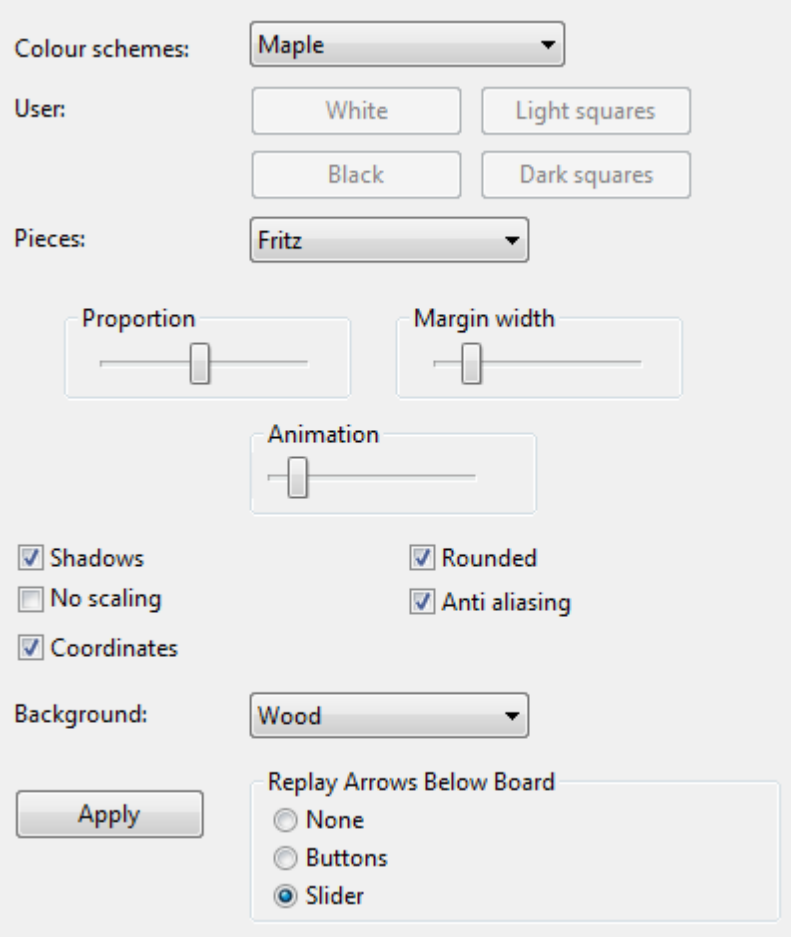
2.5 Board design – 2D board

Rightclick Chess board Board - 2D

The 2D boards can be resized by changing the size of the board window. You can also view this dialog if you right-click on the board.



You can choose different materials (wood, marble, etc.) and colour schemes for the light and dark squares, and the background. You can configure the board to have co-ordinates around the board and the game replay control buttons below it.

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There are also a number of different pieces styles. You can further improve the appearance of the screen diagrams by setting "*ClearType*" in the Windows "Display properties" – "Effects" menu. Since the diagram pieces are glorified chess fonts this will improve their appearance appreciably.

Here are the specifics of "Board design":

- *Colour schemes* selects the colour and texture of the dark and light squares of the chessboard. If you want to mix your own colours, click "plain colour" and select the colours you want for the squares and pieces. You can also use different material by clicking "User BMP" in the colour schemes.

- *Pieces* selects the piece design from several sets. "Habsburg" is classical European, "USCF" is a set in the style of American chess publications, and "Oldstyle" a nostalgic set that was used in books earlier in this century.

- *Proportion* regulates the relative size of the pieces with respect to the board.

- *Margin* width determines how wide the sides of the board should be.

- *Animation* determines how fast the pieces glide over the board.

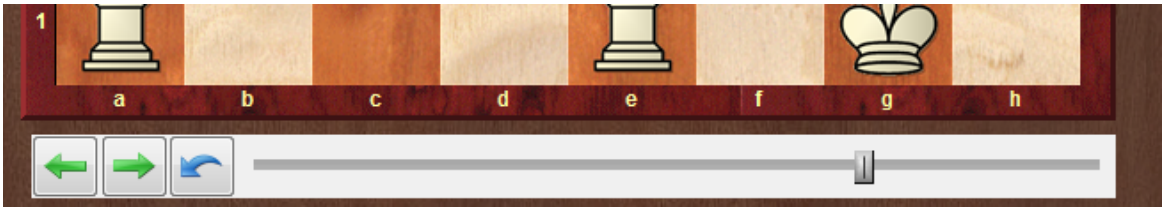
- *Shadows* gives the pieces a shadow, so they appear to be slightly raised above the board.

- *Rounded* makes the pieces appear slightly rounded.

- *Anti aliasing* switches to older "Fritz" piece fonts with fixed sizes. Here too you can use your own bitmap material by clicking "User BMP".

- *Coordinates* displays the board coordinates 1–8 and A–H on the left and bottom edges of the board.

- *Replay arrows* below board puts recorder-style replay and forward buttons below the board. You can select simple buttons or a full slider:



The buttons allow you to jump to the beginning or end of the game, or move one move backwards or forwards. The red takeback button allows you to enter a new move and overwrite the old ones without a query by the program (normally it will ask you whether you want to overwrite or start a new line).
Navigating games with the slider

The program has a intuitive way to navigate games. The slider below the board can be dragged or clicked, as in a media player, to get to different parts of the game very

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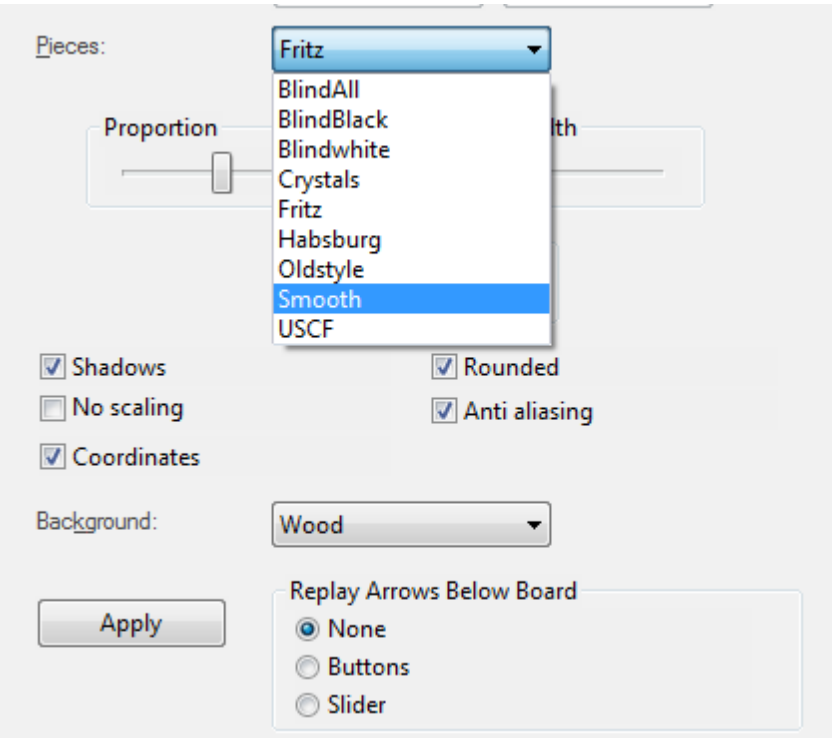
quickly. This is especially useful in long, commented games. You can install the slider by using the menu right-clicking the board and using ***Board Design - Slider***.

New pieces

The representation of the pieces on the chess board is created with the help of *True Type Fonts*.

You can change the style of the pieces whenever you want. A right click on the chess board opens the dialog "*Board Design*"

In the dialog box you will find the section Pieces.



You then have the choice between various styles of pieces. There is a quite new set of pieces called ***Smooth***.

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2.6 Board design – 3D

View Board 3D

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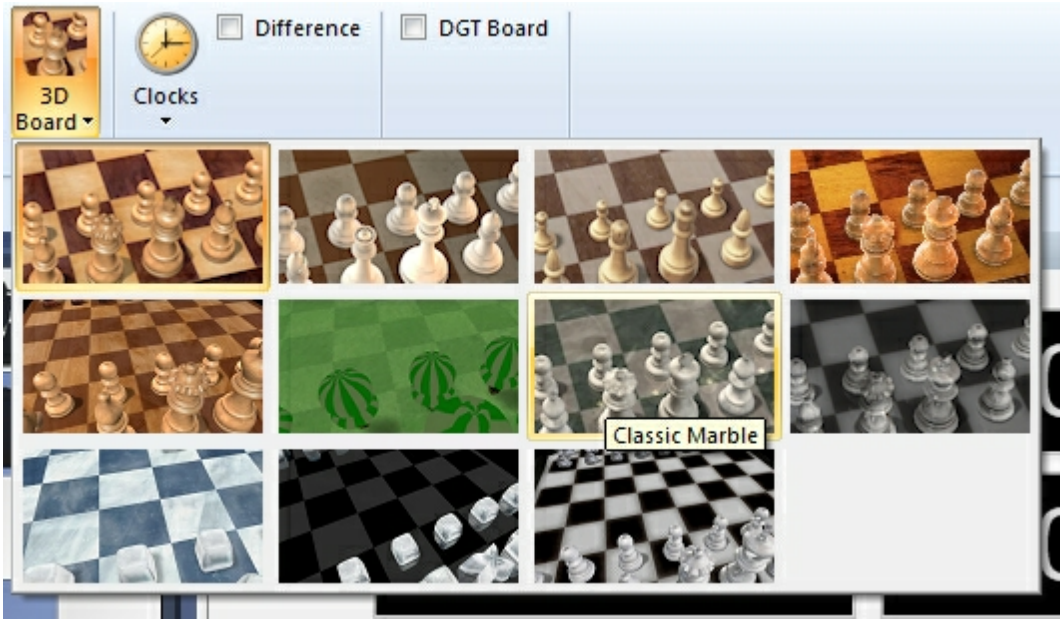
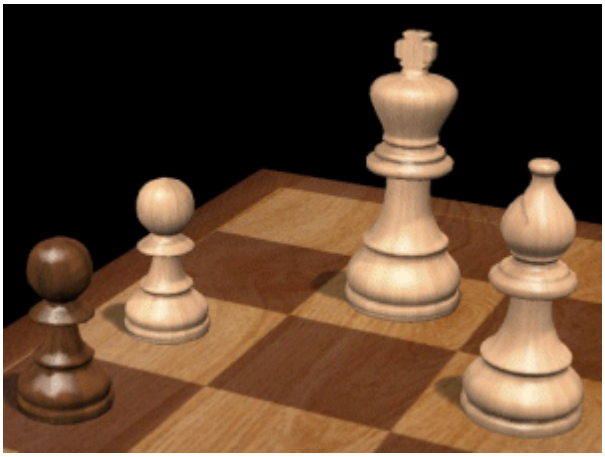


This switches to a photo-realistic three-dimensional chessboard. The high-resolution textured virtual reality board requires DirectX 9.0 or higher and a graphic accellerator.

This is what a small section of the 3D board looks like when you zoom in:



Note that when you switch on a 3D board a new window appears with a 2D chessboard, which you can use to execute moves or follow the game.
There are other pieces and textures to choose from. Use the control panel at the bottom left to move, tilt and zoom in or out.

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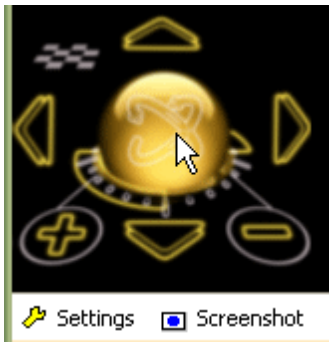

- Click on the golden sphere and, holding the left mouse button down, move the mouse cursor around to tilt the board.
- The four arrow icons around the sphere move the board up, down, left or right.
- + and – zoom in and out.
- The small chessboard is the "panic reset". It will center the chessboard and make it fit in the current window.
- Note that you can also zoom by holding down the Ctrl key and turning the mouse wheel.
- You can right-click the board (or left-click the edge) and then move the mouse cursor around to change the board angle.
- Ctrl + right-click defines what should be in the center of the window.

Keyboard controls

You can also control the board using only the keyboard:

- the comma and period keys turn the board;
- "i" and "o" zoom in and out;
- "v" and "y" move the board up or down;
- "9" and "0" move it left or right.

Memory keys F6 and F7

Before you change the angle or position of the 3D board you may want to press F6. That "remembers" the current position. After you have changed everything you can return to the previous setting by pressing F7.
Screenshot. This will produce a screenshot of the board, without any controls. You will get a dialog in which you can set the resolution. Using a large factor will give you extremely high-resolution image, which is stored in the JPG format on your hard disk.

Settings

This takes you to a dialog in which you can change all the settings of the 3D graphics board.

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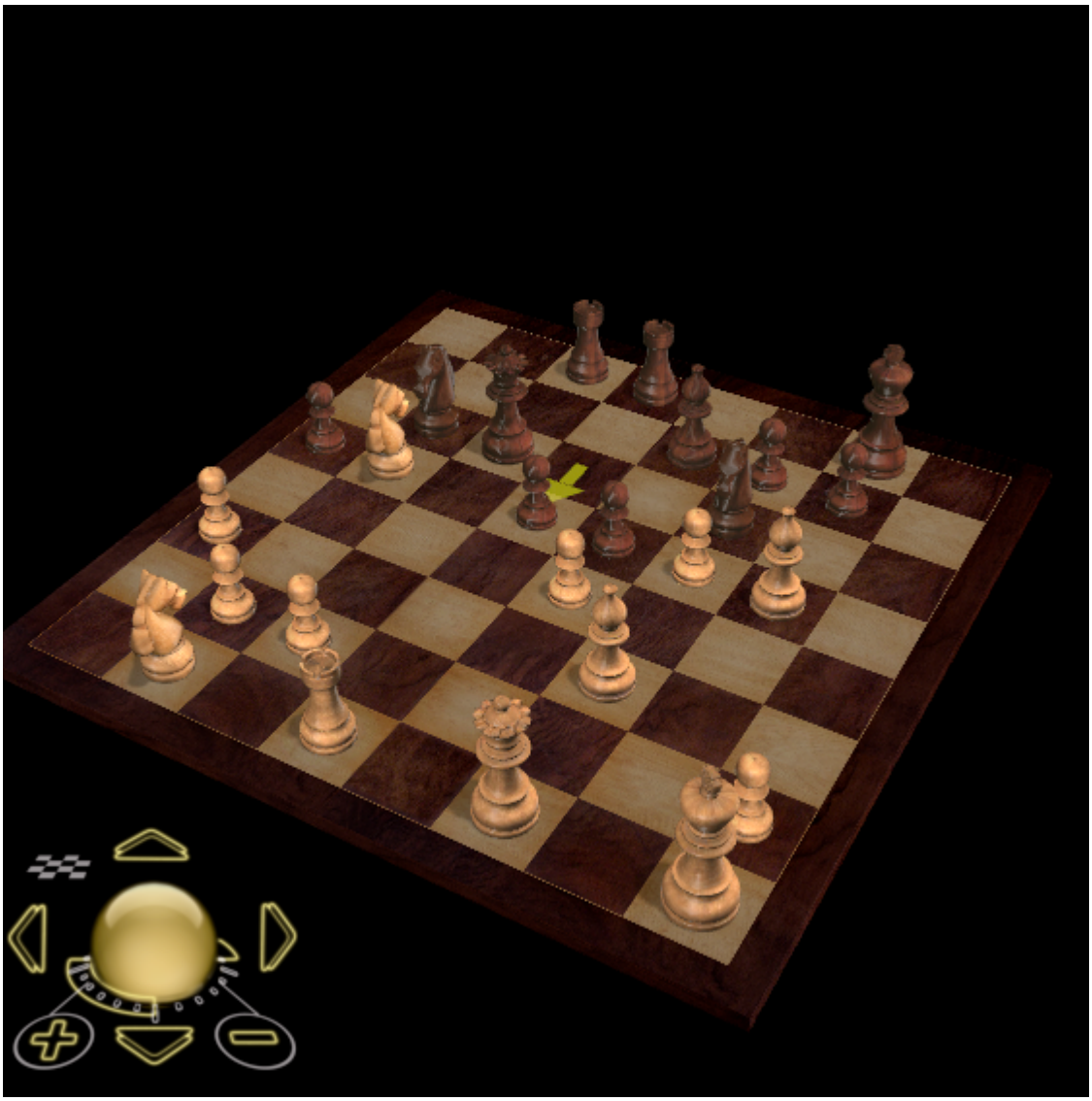
2.7 3D boards with Direct X 11



The procedure for loading the popular 3D views is now much clearer than in previous versions.

If you own a 3D prjnter, you can print the pieces.

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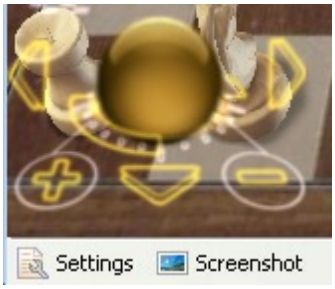
2.8 3D board – Settings

3D Settings (bottom left of the 3D board window)



This produces a dialog in which you can select one of many 3D designs and then optimize it for your screen and graphics card.

Here is a short description of what some of the main categories are. Note that you may find additional boards in your Settings dialog, especially after major updates.

- Fritz Room – this is a classical Spanish chess room, with a table, chairs, pictures, bookshelves, etc. You can use the 3D control functions to explore the room, or zoom into the board and analog clock to play a game of chess.

- Glass, wood, marble, metal, modern, silver, simple, classic, Prague – these are chessboard and piece sets in various materials, designs and styles. Some are in very high detail and can take your graphics card to its limits. But you can also generate spectacular chessboard pictures using the "Screenshot" function at the bottom of the window.

- Symbol boards have very flat symbol pieces that are used with the board in an upright position, much like the graphic 2D board, except that the symbols have clear 3D forms.

- Egypt, Shredder, etc. are boards with imaginatively sculptured pieces, for instance ancient Egyptian figures perched on the top of a pyramid.

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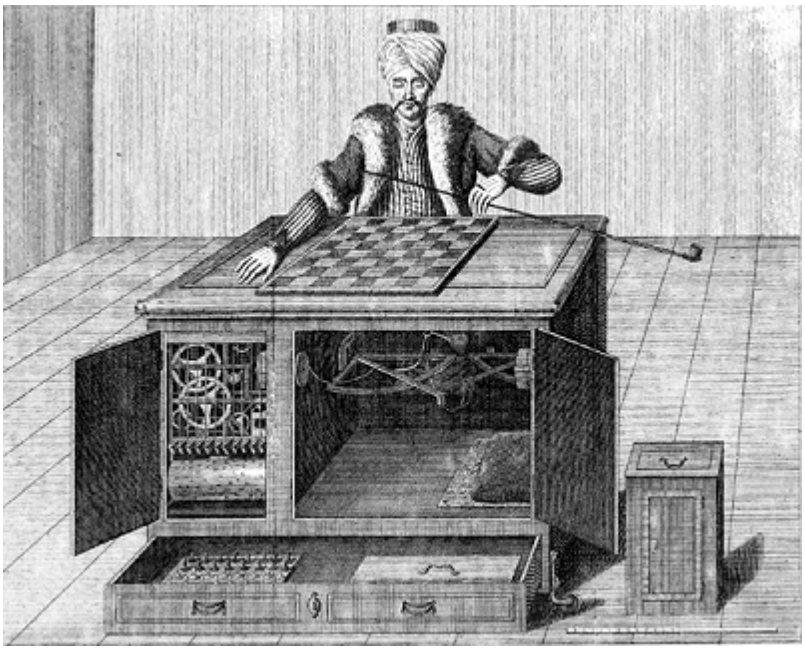
- Mia, Turk – these are new and very ambitious simulations of a futuristic Metropolis-like robot or the famous Chess Turk built in the 18th century by the Hungarian engineer Baron Wolfgang von Kempelen.

The Turk was a very famous chess-playing automaton, which was constructed in 1769 by Wolfgang von Kempelen (1734-1804) to entertain the Austrian Empress Maria Theresa. It was built in the form of a maplewood cabinet, 4 feet long by 2 feet deep and 3 feet high, with a figure dressed in a cloak and turban seated behind it. The cabinet doors could be opened to reveal internal clockwork mechanisms, and appeared to have no place in which to conceal a human player. But still the machine was able to play a strong game of chess against any opponents (even Napoleon tried his hand against it).



Contemporary copper engraving of von Kempelen's Turk

The point of the illusion was that a chess player was actually able to conceal himself very cleverly during the inspection of the machine, and then operate the Turk with the help of levers during the game.

2.9 3D board – Material

3D Settings Board, Pieces

Here you can set different materials for the pieces and the board. You can also set the resolution for the textures, making sure that your graphics card is able to handle the complexity of the 3D graphics.

Show Time in 3D – This option in the "Board" settings displays a 3D clock below the front edge of the board.

Note: If you deactivate "View toolbar", switch to full screen mode (**Ctrl-Alt-F**), and in

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addition close all other window panes (**Ctrl-5**) you will get a spectacular full-screen chessboard which is a pleasure to replay games on. If the board is too bright or too dark you can change it using the Gamma setting.

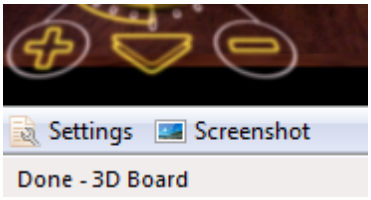
2.10 3D board – Render options

3D Settings Render Options

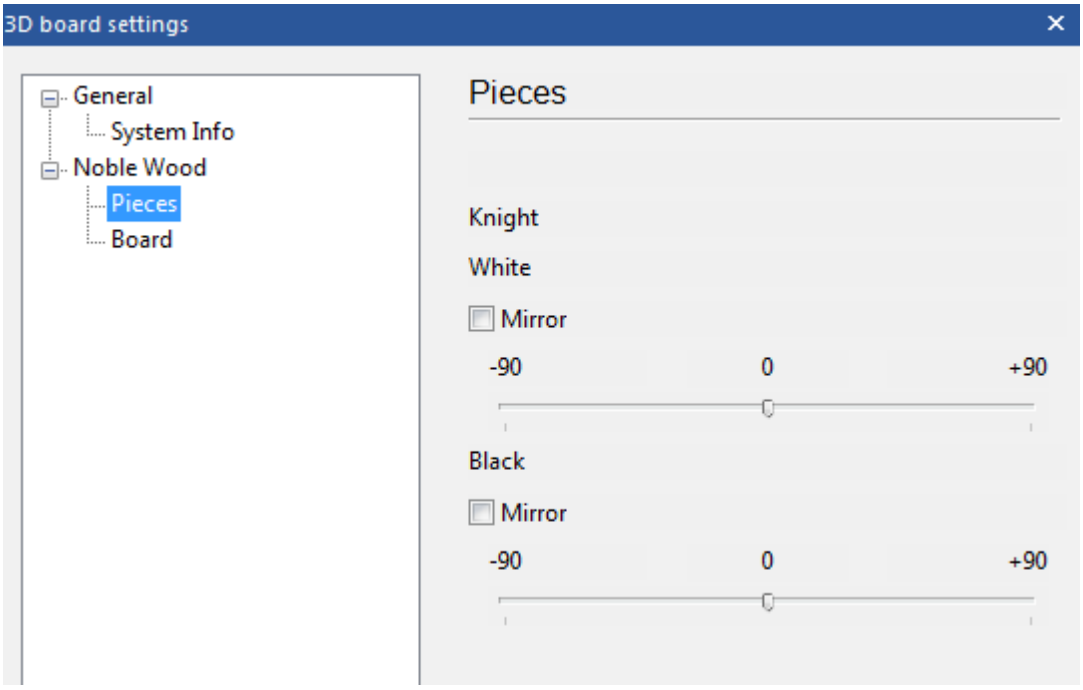
Here you can change a numer of general 3D effects. You can switch piece shadows on or off, make them rendered or calculated in real time. You can also switch on reflections on the pieces or on the board. Experiment with these settings to get a really nice display. The final quality is dependent on the power of your graphics card.

2.11 3D board – Info

True 3D Settings System/GPU Info



Here you can check the performance of your graphics card.



-> Clipboard will copy the values to the Windows clipboard so you can paste it into other applications (e.g. a word processor or email client). It is important that you send

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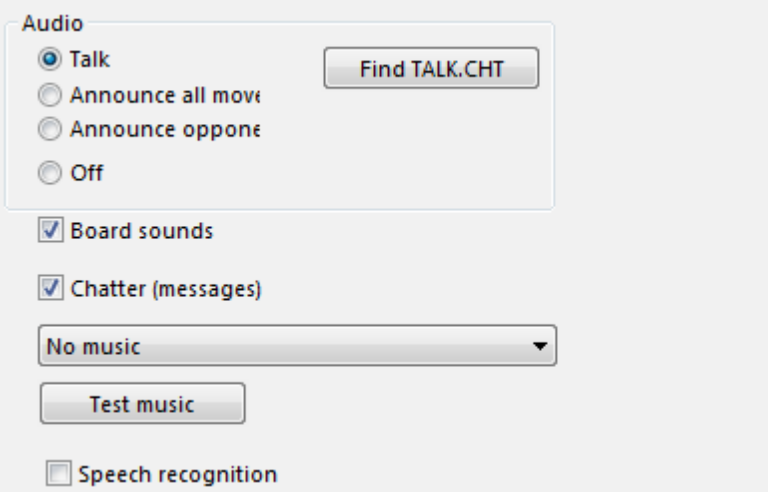
this in to ChessBase technical support in case you have problems with the 3D functions. The support address is info@chessbase.com.

2.12 New board sounds

A new feature of the program is a great number of alternative board sounds.

If under ***Options*** ***MultiMedia*** you have activated the board sounds, during the game the program plays various sounds to accompany moves and captures.

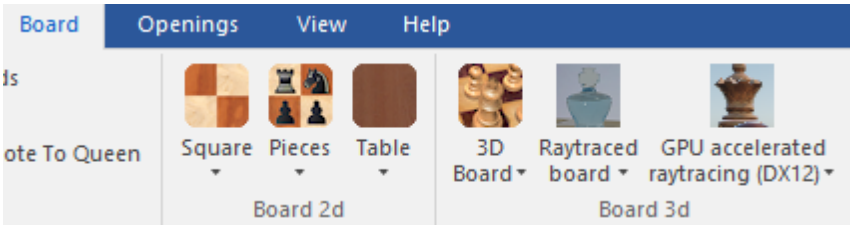


You will find the sound files in the sub-folder **\Programme\ChessBase\Sounds**.

2.13 3D Boards in Fritz 17

2.13.1 3D Boards in Fritz 17

Fritz offers different boards in 3D to play and kibitz games. For optimized performance 3D boards in Fritz can be used using 3 different techniques. Every different technique has several board styles to choose from. You can select these from the dropdown gallery.



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This is the fastest 3D board, it uses DX11 and will run on most PC's and Laptops using a combination of the CPU and the graphics cards.

2.13.2 3D Raytraced board

Boards using this technique will be noticable slower but represents more realistic boards using Raytracing. The raytracing calculations are done entirely on the CPU. The board is ideal for composing your own images of your favorite positions or kibitzing long games.

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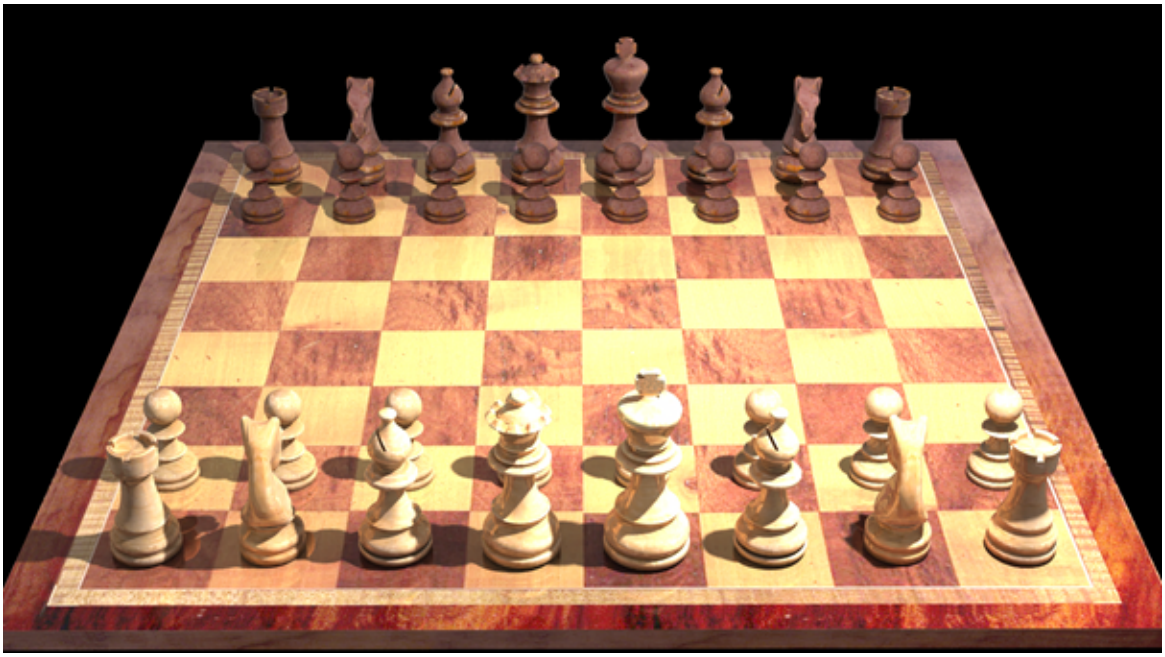
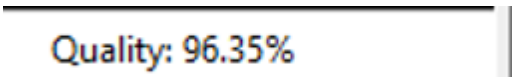


You will notice that the quality of the image will improve over time as new calculations are finished and added to the image.

At any time, in the lower right corner you see an indication of the image quality.

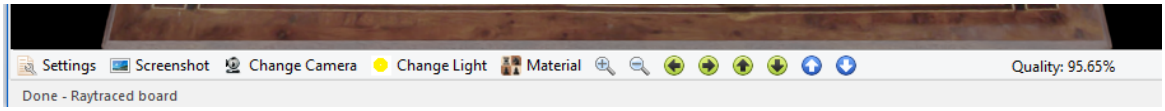


Every time the position of the board is changed, the image generation has to start again. Also, when you change the camera or light settings, the image need to be recalculated.

If it reaches near 100 % the image wont improve.

2.13.3 Options

Below the board you find different functions.



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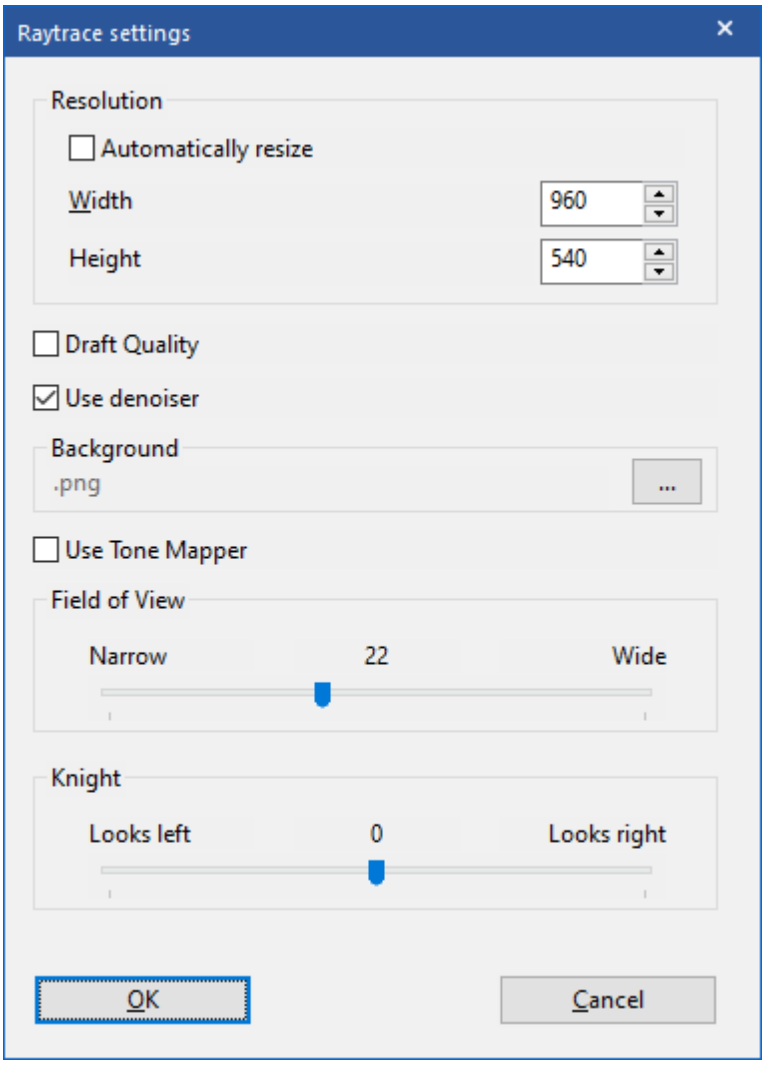
2.13.4 Settings

Through the toolbar you can change a few settings.



Resolution
As every pixel is calculated in detail, the size has windows has a huge influence on the speed. You can speed up the calculations by unchecking the "Automatically resize" checkbox and by entering values for the output size. The resulting image will be scaled in proportion to match the window.

Draft Quality.
If you use this option, the raytracer will stop at some point, releasing CPU resources to other processes, like the engine

Use denoiser
The raytracer uses an algorithm known as a Pathtracer. Depending on the lights you use in the scenery, it can lead to noise. The Denoiser will remove the noise and generates a better image.

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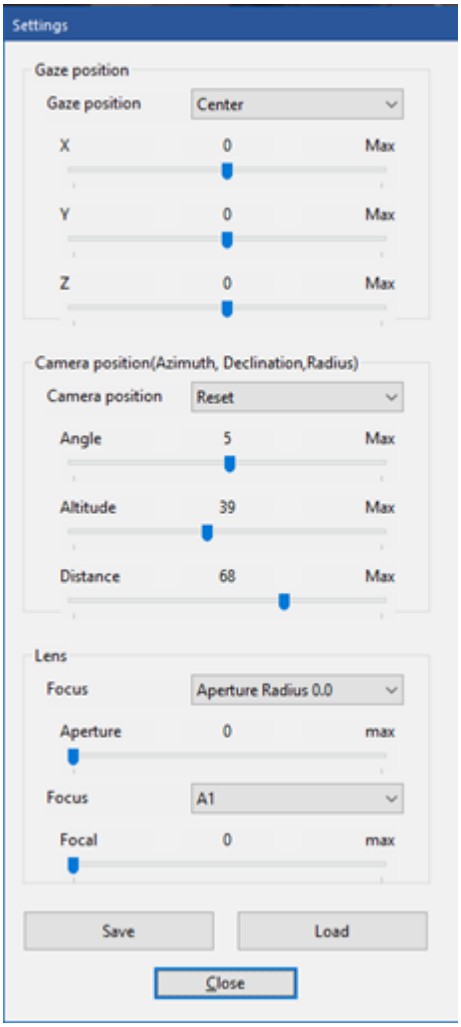
Background
You can change the background of the image

Use Tone Mapper
The tone mapper changes the output color of the image slighter into a more cinematic experience

Field of View
In photography, the field of view is that part of the world that is visible through the camera at a particular position and orientation in space

Screenshot
You can save a screenshot of the current board to a file.

Change Camera



The gaze position is where the camera will be looking at. A few presets are applied. For example you can control to camera to look at a specific square.

Camera Position

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This is where the camera is positioned, relative to the gaze position. Here a few presets are defined. For example if you select “Top Down” the camera will be position right above the gaze point.

Lens

If you wish you can set Aperture radius and focus so that parts of the image will be blurred, also known as the bokeh effect, which generate appealing images.

An example of using Aperture radius and focus:

Save and Load

You can save a camera setting for later use and retrieve it back by using "Load”.

Change Light

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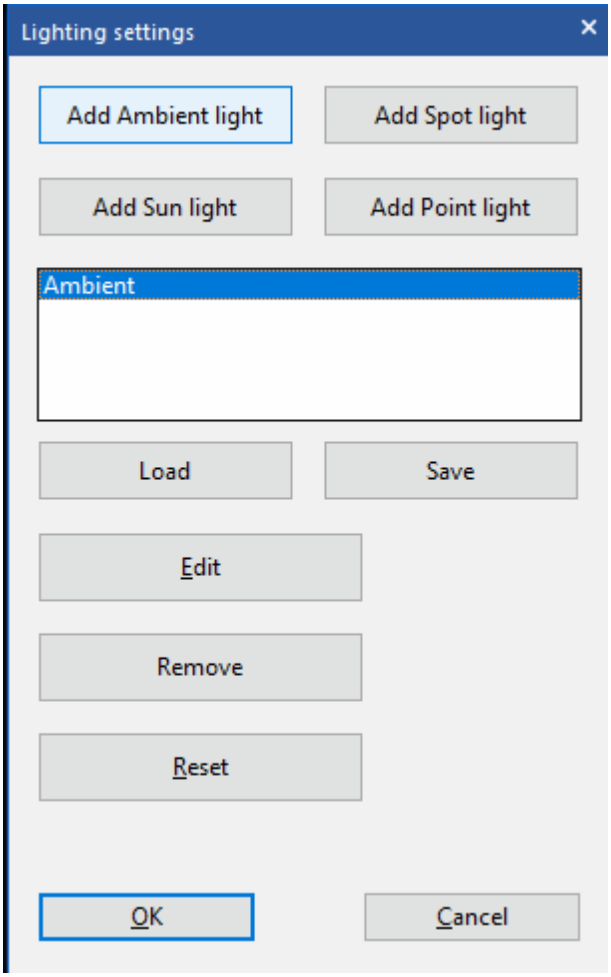

Normally a scene has one more more lights. The most common light is “Ambient light”. It will lit everything in the scenery. In Fritz you can use 3 other types as light as well.

Spot Light

A spot light behaves exactly how it sounds, like a real spot light, and provides a very direct source of light. One of the key benefits that you get when using a spot light is the directionally that you get from the light. The spot light is emitted through a cone and you can control how wide the cone angle is which determines how much of the area is actually illuminated. Objects closer to the spot light will be brighter, and depending on the how wide the cone is the light will either be softer or harder

Sun Light

A directional light mimics the lighting that you would get from the sun. Directional lights emit parallel light rays in a single direction but the light reaches out into infinity. You can think of a directional light as a giant flash light very far away from your objects, always centered and it never dies off. You can rotate the light in any direction

Point Light

Point lights are the most common light types found in 3D software. A point light is very similar to an incandescent light bulb that emits light in all directions. You can think of a point light as a sphere of light filling an area. Objects closer to the light will be

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brighter, and objects further away will be darker. Point lights are great when you need to illuminate areas with a smooth falloff in all directions, or create a light that has a single point as its source, like a lamp or candle

In Fritz you can Add, Delete and change all those different types of light, enabling to experiment with different settings. For every light you can change the color.

Reset

At any time you can go back to a default lightning, which is an ambient light.

Advanced functions

If you enjoy changing the camera and the light, you might want to go a step further and change the material of the board and pieces.
For raytracing a few basic materials are used for example, Metal, Alloy, glass and Metallic.

Press "Board", "White" or "Black" to change the material. In order to apply the changes press "*Apply*"

Camera navigaton buttons

Those buttons can be used to change the camera position. The first two are to zoom in and out.

Next 4 are to till the board, left, right, up and down.

The last two are for moving the board upwards and downwards.

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2.13.5 3D GPU Hardware raytracing (DX12)

The technique used to render is known as DXR, short for DirectX raytracing, it a method which relies heavily on the graphics card (GPU). The GPU needs to be capable of DXR which currently is supported by NVIDIA RTX series of cards. It is similar to the Raytracing boards described in the previous chapter, with the big difference is that all the calculations are done on the GPU. For this to work you also need to have your Windows 10 updated to latest release.

In the right lower corner you see an indication the of quality of the image. If it is near 100 % the image won't be improved any further.

Every time the position of the board is changed, the image generation must start again. Also, when you change the camera or light settings, the image need to be recalculated.

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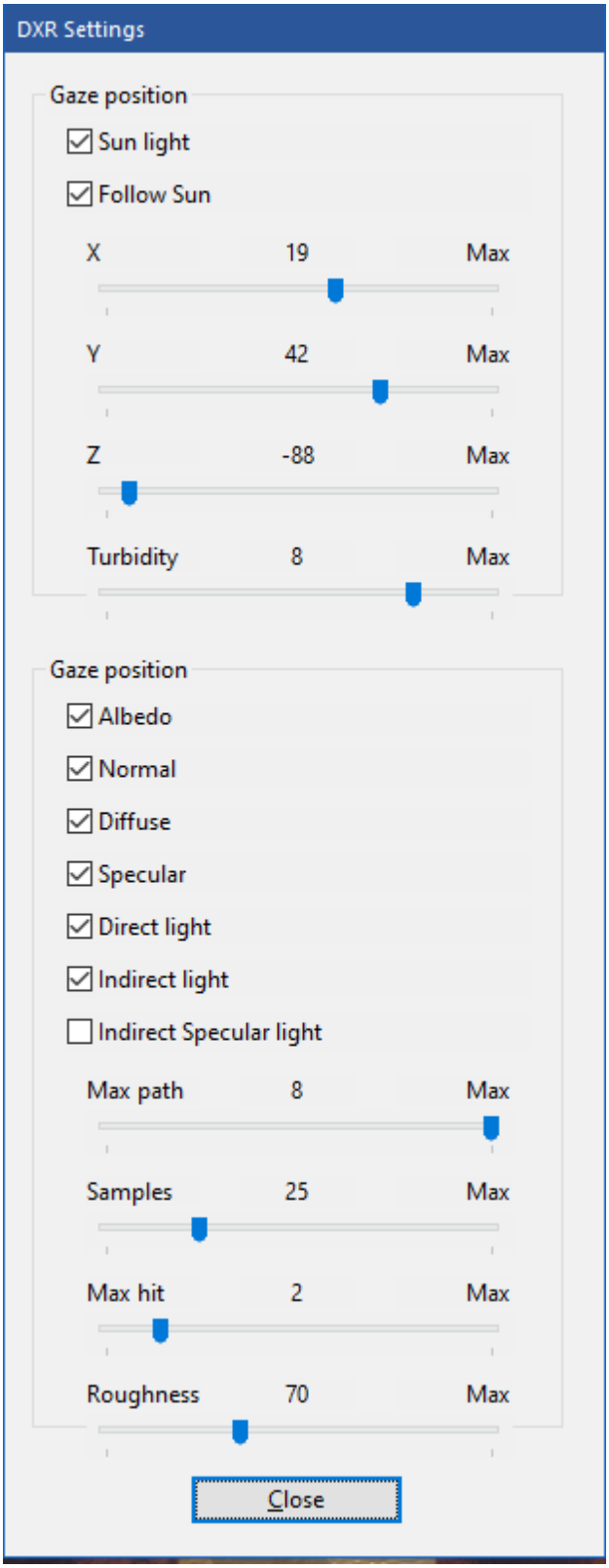

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Sun Light
If this box is checked, the light will mimics the sun light.

Follow Sun
If enabled, the position of the sun lights will follow the location of the real sun as possible, if an approximate of your location is accessible then every 5 minutes the lights will be recalculated. If disabled you can change the position of the Sun.

Turbidity
This is the thickness of the air. If this value is low, the air might appear clear and bluer. If this value is high, the air appears more like a warm sunny day.

Albedo
If enabled the color information will be used to render the image

Normal
If enabled the light calculations will be more accurately

Diffuse
If Enabled the diffuse light will be contributed to the overall image

Specular
If enabled the specular highlights will be visible

Direct Light
If enabled the direct light component will be added to the overall image

Indirect Light
If enabled, the indirect light will be visible

Max Path
This is a setting for the raytracer how many times a ray an be bounced onto another surface before its final color is determined.

Samples
How many samples per pixel are used.

Max Hit
This is a setting for the raytracer how many times a ray can hit onto another surface before its final color is determined.

Roughness
This is the overall roughness of the scenery, the higher the setting the rougher the surfaces of the materials will appear.

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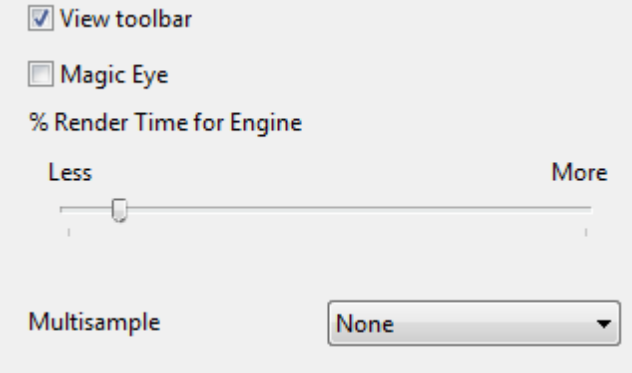
2.14 Adjust thinking time

Program 's animated 3D displays demand a lot of resources from the computer.

A powerful graphics card is necessary to guarantee smooth performance. The performance of the 3d graphics display can be adjusted using the menu *Settings - General*.



You can use the slider to decide how much processor time the CPU uses to render the 3D images. If the graphics module is given a large amount of time there will be less resources remaining for the chess engine, which leads to a weakening of the playing strength. If you want the chess engine to play strong chess in 3D graphics mode you should choose a low value for the rendering.

If you enable the display of the picture's refresh you will see as a permanent display in the top left corner how often the graphics are redrawn.

If you are using a multiprocessor system the 3d graphics will be handled by one of the CPUs. The chess engine will then be able to use 100% of the resources of the other CPUs.

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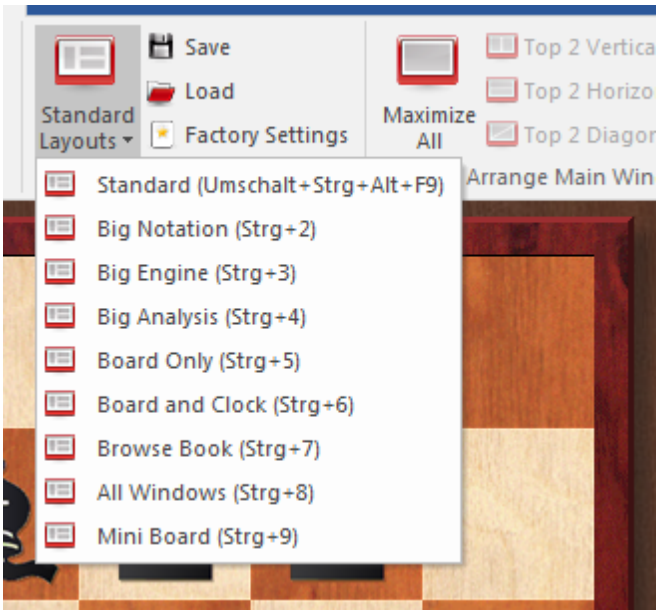
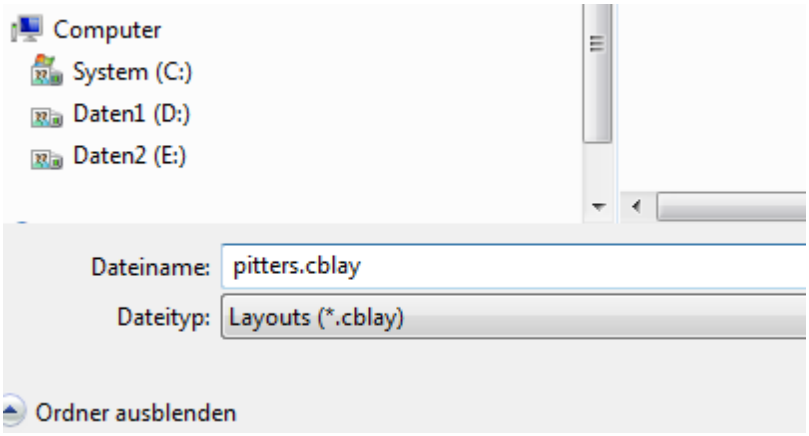
It can take a long time for the Chess Turk to be displayed, depending on the computer's hardware configuration. This time can be speeded up by selecting a simpler 3D display before ending the program. This setting is then stored. The next time the chess Turk is selected it will take less time to load him.

2.15 Save and load layouts

Menu View Save layout / Load layout



If you have created your own ideal layout, you can save it and load it again later. Enter a name for the layout when the save box appears.



You can save as many layouts as you want.

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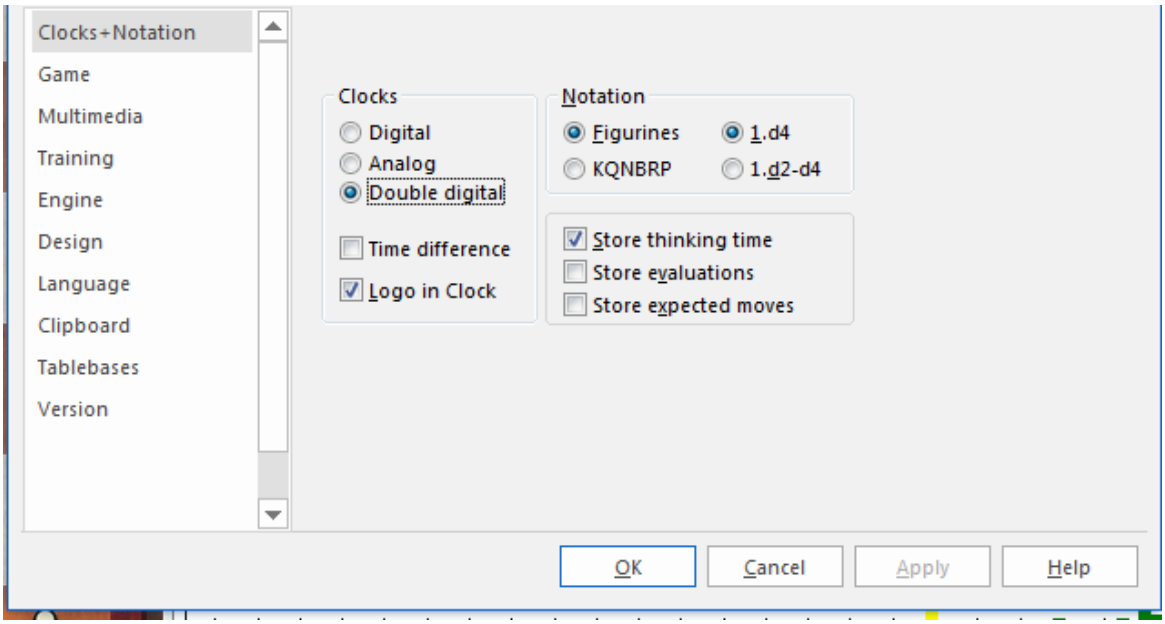
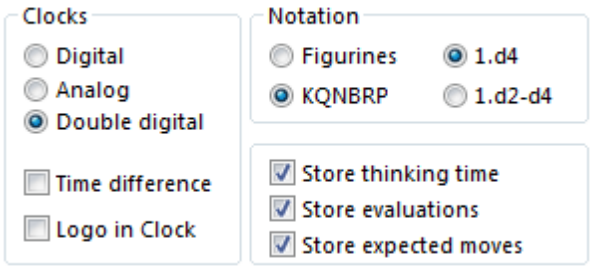
2.16 Options

2.16.1 Options – Clocks and Notation

Menu File Options Clocks and Notation



- ***Digital / Analog / Double digital***: Choose the type of chess clock you want.
- ***Logo in clock***: Displays the logo of the active chess engine to the right of the chess clock.
- ***Figurine / KQNBRP***: Choose between letters and figurines for piece names. This applies to the screen and printed notation.
- ***1.d4 / 1.d2-d4***: Choose either short or long algebraic notation. The latter always gives the start and destination squares of the move. It is more easily understood by beginners, and it is automatically set if you specify that you are an beginner when you install the program. In short algebraic the start square is not given if the move is unambiguous.



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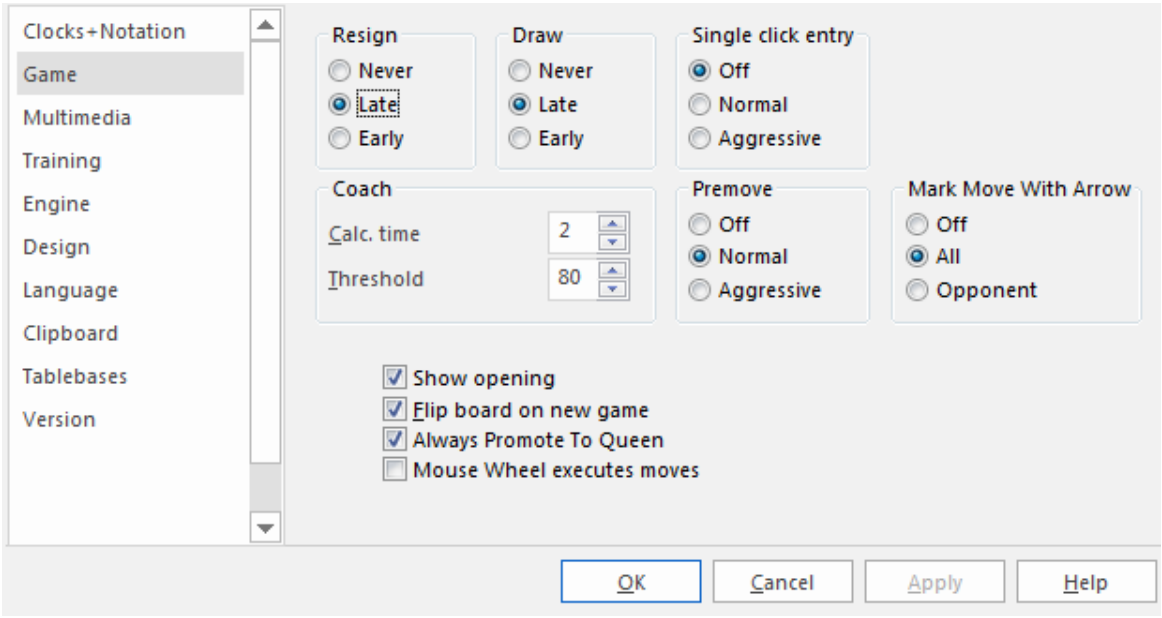
- **Time Difference** - Shows the different individual time consumption of the chess clocks.
- **Logo in Clock** - Does the logo in the display of the Chess clock
- ***Store thinking time***: The time each side uses is recorded after each move in the notation.
- ***Store evaluations***: This causes the program to record after every move its evaluation and the search depth. The form is value/depth.
- ***Store expected move***: The program records the move it expected whenever the opponent plays something different.

2.16.2 Options – Game

Menu File Options Game



Here you can set a number of parameters relating to the games.

Resign: "Late" means that the program will have to see three times in a row an evaluation of 6.5 pawn units or worse for itself before it throws in the towel. "Early" means it has to see minus 4.8 three times. "Never" means exactly that. Note that the program will not resign if it sees that it's being mated. Why spoil the fun?

Draw: This has the same type of options as resigning – Early, Late and Never.

Single click entry: It's a blitz game, you are completely winning, but your time is running out. Use the single-click entry to avoid this situation.

Normal: If you click a square to which only one piece can move it is immediately moved there. If more than one piece can move to the square then you must click it for

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the move to be executed. If you click g1 or g8 and short castling is legal it will be automatically executed.

Aggressive: Same as normal, but if more than one piece can move to the clicked square the piece that last moved will automatically be chosen. This allows you to execute a long check sequence or a king march very rapidly. A second difference: if you click a piece that can make a number of moves, if one of these captures the piece the opponent has just moved, then the capture is automatically executed.

Note: You can use a special technique called "dropping". This entails picking up a piece while your opponent is still thinking and holding it over the destination square. As soon as the opponent's move comes you let go of your piece, using practically no time on your clock. It is a slightly dangerous technique – if the opponent plays something unexpected you may let go the piece and then face disaster. Still dropping is used extensively in fast games on the chess server.

Coach: You can influence the quality of the coaching here:
- *Calc. time:* When you use the functions Hint and Suggestion in the Help menu the program must do a quick calculation. If you give it more time the quality of the coaching will improve.
- *Threshold*: When you make a mistake the coach appears. Here you can tell the program how serious the mistake must be (in pawn units) for the coach to appear.

Show opening: Shows the ECO codes and names during the opening phase of the game. The names appear in the status bar at the bottom of the screen.
Flip board on new game: The program likes to play occasionally with white. It will flip the board around when you start a new game, just like a human player. You can switch this option off if you always want to play white (you can flip the board manually with Ctrl-F).

Mark move with arrow: Your opponent's moves are marked with a yellow arrow, so you can catch them more easily. This is especially useful when you play on the Internet.

Always promote to queen: This is a timesaver for blitz games, where selecting a promotion piece (almost always a queen) can waste valuable seconds.

2.16.3 Options – Multimedia

Menu File Options Multimedia

This allows you to configure the multimedia elements of the program.

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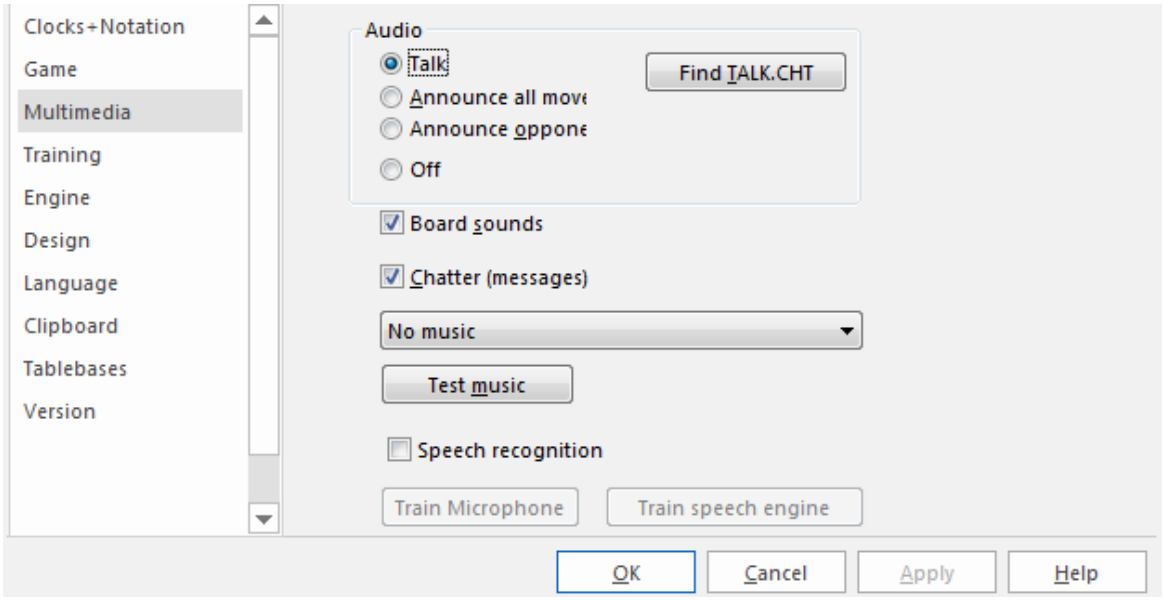

Talk: You can allow the program to chat you up during the game, or you can make it shut up, if the incessant remarks are getting on your nerves. The remarks depend on what is happening on the chessboard – whether you have improved your position, blundered, made an aggressive advance, taken the program out of book, etc. The program will also comment on the opening that is being played.

Announce moves: The program will speak the moves as it executes them if you want. This is useful if you are using the DGT intelligent sensor board, or you have a sight impediment, or if you are simply playing a slow tournament game and want to be alerted when the computer makes a move.

Board sounds: This switches on or off sound effects (e.g. moves, captures, ticking clock, coughs, etc.) that are used during the game.

Find TALK.CHT: If you want the program to talk to you during the game you may have to tell it where the TALK-files are located. Click "Browse" and search for the file Talk.cht. This is especially important if you have copied the TALK-files on your hard disk.

In the dialog that appears click the "Find TALK.CHT" button and show the program where the talk files are located.

▸ Once the program has found the Talk files you should test them to see that everything is working properly.

▸ If you want a break from the chatter you can click "Shut up". You can reactivate it later in the same dialog.

3D sound: If you have a sound system that supports surround, then you should switch this on for 3D sound effects.
Chatter (messages): During a game the program will chatter in written form, in the status bar at the bottom of the window (you can also open a special chatter window for them). As with the spoken "Talk", these remarks depend on the progress of the game and the last move played. They are, however, not identical to the spoken

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commentary.

Music/JSBach: If you switch "Music" on then at different times – e.g. when you start, when you win a game or a title in a rated game – you will hear a short piece of music. If you like Baroque music you can have the strains of Johann Sebastian Bach in the background while you play against the program.

Copy Talk files to hard disk

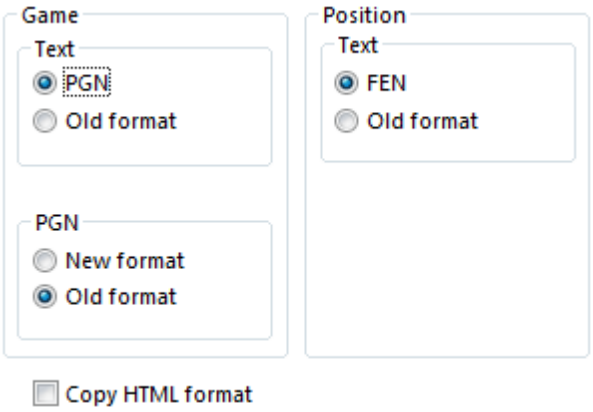
The "Talk" files consist of spoken remarks the program uses during the game. They are normally run from the CD. If you have enough hard disk space you can copy them there, using the following procedure:

- Create a directory anywhere on your hard disk for the Talk files. Call it, e.g., \TALK
- Copy the two files TALK.CHT and ECOSND.CHT into the new directory (TALK).
- Remove the write protection from these two files (files on a CD are always write protected). This is done by marking them in the explorer, then right-clicking them and selecting "Properties". Click off the attribute "Read-only".

In the Menu File – Options – Multimedia click the "Find TALK.CHT" button. Show the program where the talk files are located.

2.16.4 Options – Clipboard

Menu File Options Clipboard



In this dialog you can specify in which format you want games and positions to be stored in the Windows clipboard. From there they can be pasted (with Ctrl-V) into a text editor or paint program.

Game

Edit Copy game (or Ctrl-C) copies the game notation into the Windows clipboard. You can specify whether it should be in PGN or standard, and if it is PGN whether it should be the old form, which is easier to read, or the newer version, which is better

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for some chess programs.

This is the standard format:
(60) RyCooder (2614) - Klosterfrau (2424) [B40]
Rated game, 3m + 0s Main Playing Hall, 17.02.2002
1.e4 c5 2.Nf3 e6 3.d4 cxd4 4.Nxd4 Qb6 5.c3 a6 6.Nd2 Qc7 7.f4 Qxf4 8.Nc4 Qxe4+ 9. Be2 Bc5 10.b4 Ba7 11.Nd6+ 1–0
This is a PGN header
[Event "Rated game, 3m + 0s"]
[Site "Main Playing Hall"]
[Date "2002.02.17"]
[Round "?"]
[White "RyCooder"]
[Black "Klosterfrau"]
[Result "1-0"]
[ECO "B40"]
[WhiteElo "2614"]
[BlackElo "2424"]
[PlyCount "21"]

This is the old PGN notation

1. e4 {1} c5 {0} 2. Nf3 {1} e6 {0} 3. d4 {2} cxd4 {1} 4. Nxd4 {0} Qb6 {0} 5. c3 {5} a6 {5} 6. Nd2 {3} Qc7 {7} 7. f4 {2} Qxf4 {5} 8. Nc4 {7} Qxe4+ {6} 9. Be2 {2} Bc5 {10} 10. b4 {2} Ba7 {2} 11. Nd6+ {Klosterfrau resigns (Lag: Av=0.9s, max=4s) 1} 1-0
This is the new PGN format
1. e4 {[%emt 0:00:01]} c5 {[%emt 0:00:00]} 2. Nf3 {[%emt 0:00:01]} e6 {[%emt 0:00:00]} 3. d4 {[%emt 0:00:02]} cxd4 {[%emt 0:00:01]} 4. Nxd4 {[%emt 0:00:00]} Qb6 {[%emt 0:00:00]} 5. c3 {[%emt 0:00:05]} a6 {[%emt 0:00:05]} 6. Nd2 {[%emt 0:00:03]} Qc7 {[%emt 0:00:07]} 7. f4 {[%emt 0:00:02]} Qxf4 {[%emt 0:00:05]} 8. Nc4 {[%emt 0:00:07]} Qxe4+ {[%emt 0:00:06]} 9. Be2 {[%emt 0:00:02]} Bc5 {[%emt 0:00:10]} 10. b4 {[%emt 0:00:02]} Ba7 {[%emt 0:00:02]} 11. Nd6+ {Klosterfrau resigns (Lag: Av=0.9s, max=4s) [%emt 0:00:01]} 1-0

Position/Text
The current position is copied into the clipboard either as FEN or in the traditional text description. Both are described in the position setup.

Copy HTML format
If you switch on this option then the program will generate HTML code when you press Ctrl-C in a game. This you can paste in a word processor, HTML editor or email client.

The program copies the game in many different fomats in the clipboard. These include plain text, PGN and RTF. In many applications there is a "Paste Special" which allows you to select the one you want. They are all present at the same time in the clipboard. "Copy HTML format" simply ensures that this is also available.

Below you can see what the HTML code looks like in the clipboard. The background colour is a pale yellow, the game header is in headline size three, and the moves are in a separate paragraph without line breaks. The output should look very nice

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```
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<TITLE>ChessBase HTML output</TITLE>
<META NAME="GENERATOR" CONTENT="Fritz 9">
</HEAD>
<BODY BGCOLOR=#FFFDE8>
<P><H3>(141) Zukertort,Johannes Hermann - Blackburne,Joseph Henry [A13]<BR>
 London, 1883<BR>
</H3></P>
<P>
1.c4 e6 2.e3 Nf6 3.Nf3 b6 4.Be2 Bb7 5.0-0 d5 6.d4 Bd6 7.Nc3 0-0 8.b3 Nbd7 9.Bb2
Qe7 10.Nb5 Ne4 11.Nxd6 cxd6 12.Nd2 Ndf6 13.f3 Nxd2 14.Qxd2 dxc4 15.Bxc4 d5 16.
Bd3 Rfc8 17.Rae1 Rc7 18.e4 Rac8 19.e5 Ne8 20.f4 g6 21.Re3 f5 22.exf6 Nxf6 23.f5
Ne4 24.Bxe4 dxe4 25.fxg6 Rc2 26.gxh7+ Kh8 27.d5+ e5 28.Qb4 R8c5 29.Rf8+ Kxh7 30.
Qxe4+ Kg7 31.Bxe5+ Kxf8 32.Bg7+ Kg8 33.Qxe7 1-0</P>
</BODY></HTML>
```
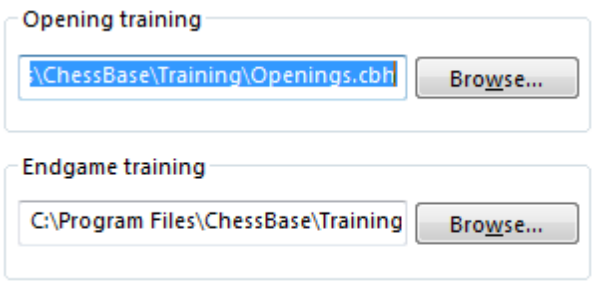

2.16.5 Options – Training

Menu File Options Training



You can create your own databases for the openings and endgame training. These can be stored anywhere on your hard disk. But you must tell the program where they are.

Use the "Browse" button to find the files and click "OK" to save.

2.16.6 Options – Design

Menu File Options Design

You can set a number of options that affect the appearance of the program.

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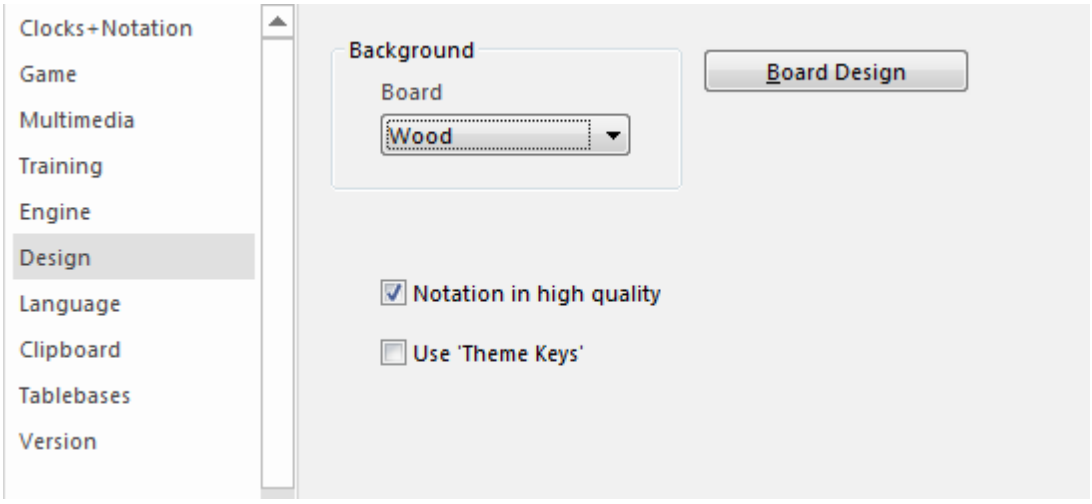

- Background – Windows: Choose different materials and colours for the background of the windows. "User BMP" allows you to use any picture for the windows.

- Background – Board: Select a material, colour or picture ("User BMP") for the area around the board.

- *Board design*: Set the board colours. You can get directly to that screen by right-clicking the board and selecting "Board design".

- *3D board settings:* Change the settings of the 3D board.

- *Splitter thickness:* Set the width of the separation of the Windows.

"Notation in high quality"
In rare cases there can be problems with the display in the list windows or in the notation window. If, e.g., what is printed in the lists does not appear until you have scrolled up or down the list or till you have used the ALT - TAB key combination, then a change in the options dialog for the program will help.

If you deactivate this setting, then the problems with text display which have been described will no longer occur.

Use Theme Keys"
If a database is classified with Theme keys, you can access relevant parts on the tabs. This option turns on the display above the list window or out. Databases from ChessBase classified alongside the opening key with finely textured themes keys that allow quick access to certain games with middle or endgame motives.

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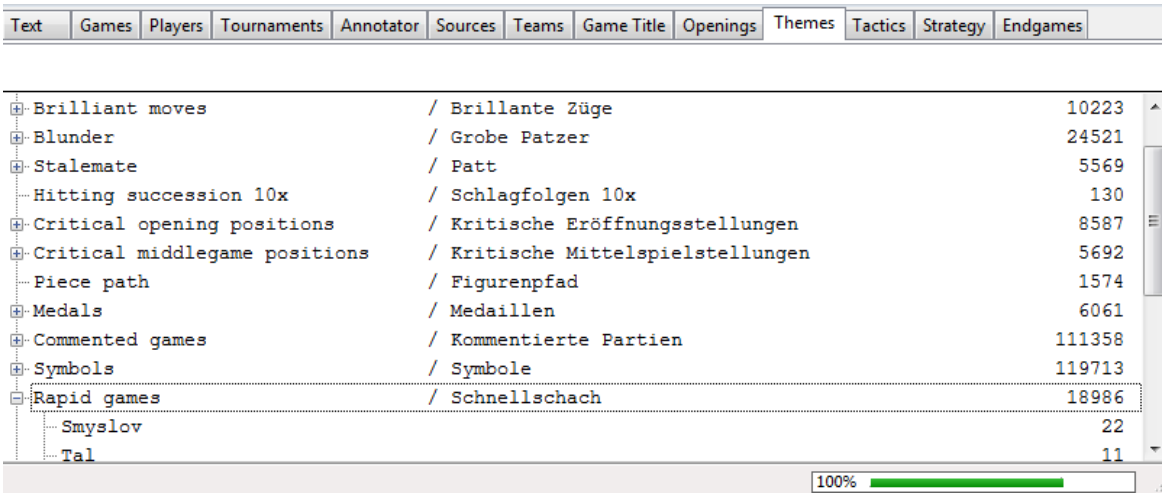
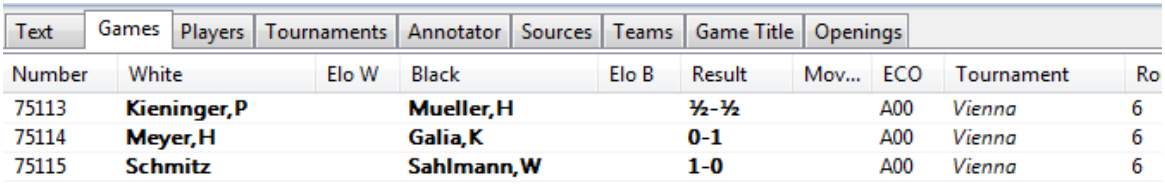
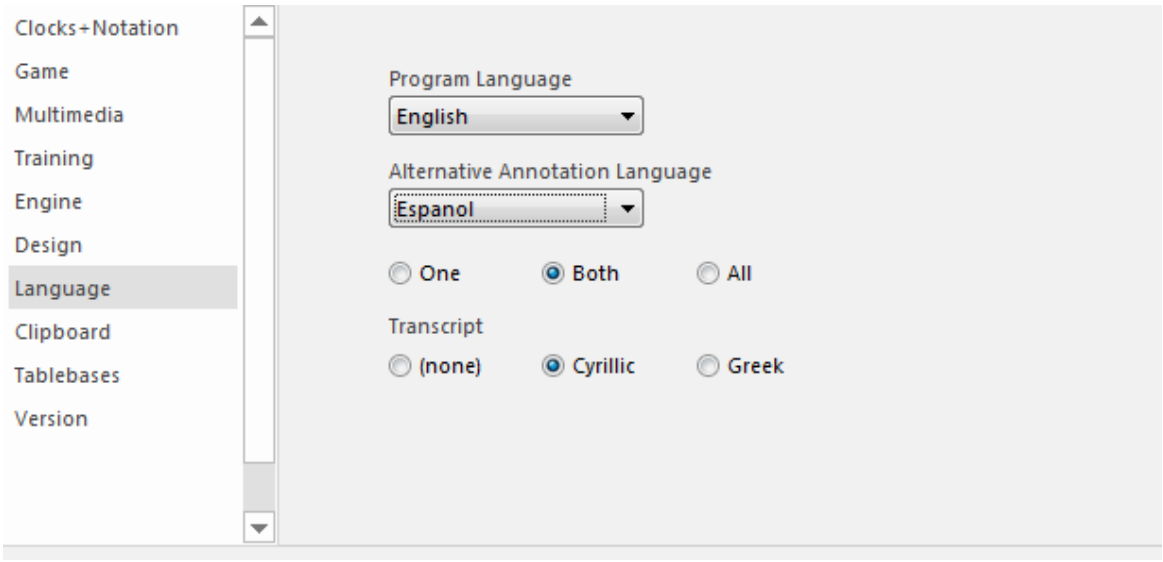




2.16.7 Options – Language

Menu File Options Language



You can set the language you want for the program, and for game commentary (when you enter text commentary you can specify in which language you are annotating the game).

You can choose to display commentary in one, two or all languages. If a game contains no commentary in the languages you specify then the other languages are shown.

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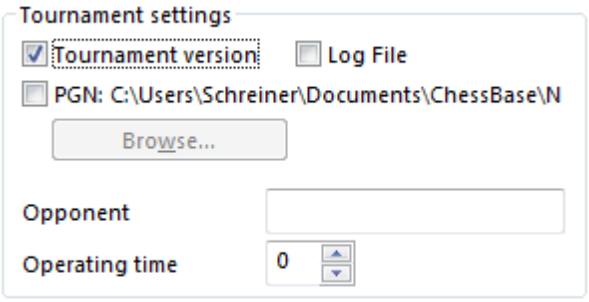
2.16.8 Options – Version

Menu File Options Version



There are many different chess engines that can run under the program interface. Here you can set which of the engines will represent the program by default.

Tournament version

This switches to a special mode in which the area surrounding the board turns red when the program has made a move. This is useful as a signal for a human operator, especially when the program is playing against a human opponent and it is not acceptable to have a sound signal switched on. The option is only meaningful for such encounters, and not of relevance to normal users.

Log file: this causes the program to keep a log file of the game, so that everything can be checked meticulously after an important tournament games. The file can be printed out and given to the arbiter.

PGN: here you can specify a file for a PGN record of the game. It is updated every time a move is made, and contains the moves and the evaluation of the program. This function is useful for publishing games on the internet.

Operating time: you can specify how much time the program should deduct from its own thinking time in order to compensate for the lag of a human operator, who needs some time to register and enter the move of the opponent (and execute the computer moves on the official chessboard).

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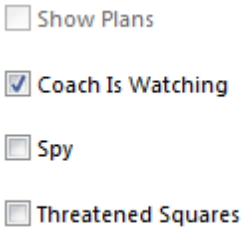
2.16.9 Options - Engine

Menu Options - Engine



Show Plans - Displays the planned Manoeuver of the engine. The function is not supported by any engine!

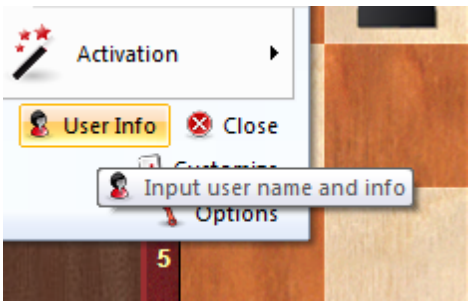
Coach is watching - The trainer monitors the moves and indicates errors and better alternatives!

Spy - The spy provides additional information during the game.

Threatened Squares - Shows the power constellations on the chessboard.

2.16.10 User Info

Menu File User info



When you start the program for the first time it will ask you for your full name, your town, and the name of your computer (e.g. "Pentium 400/128"). It also asks you whether you are a beginner, a hobby player, or a club player. If you choose the first it will start in "Friend mode", set long algebraic notation, and put co-ordinates around the chessboard.

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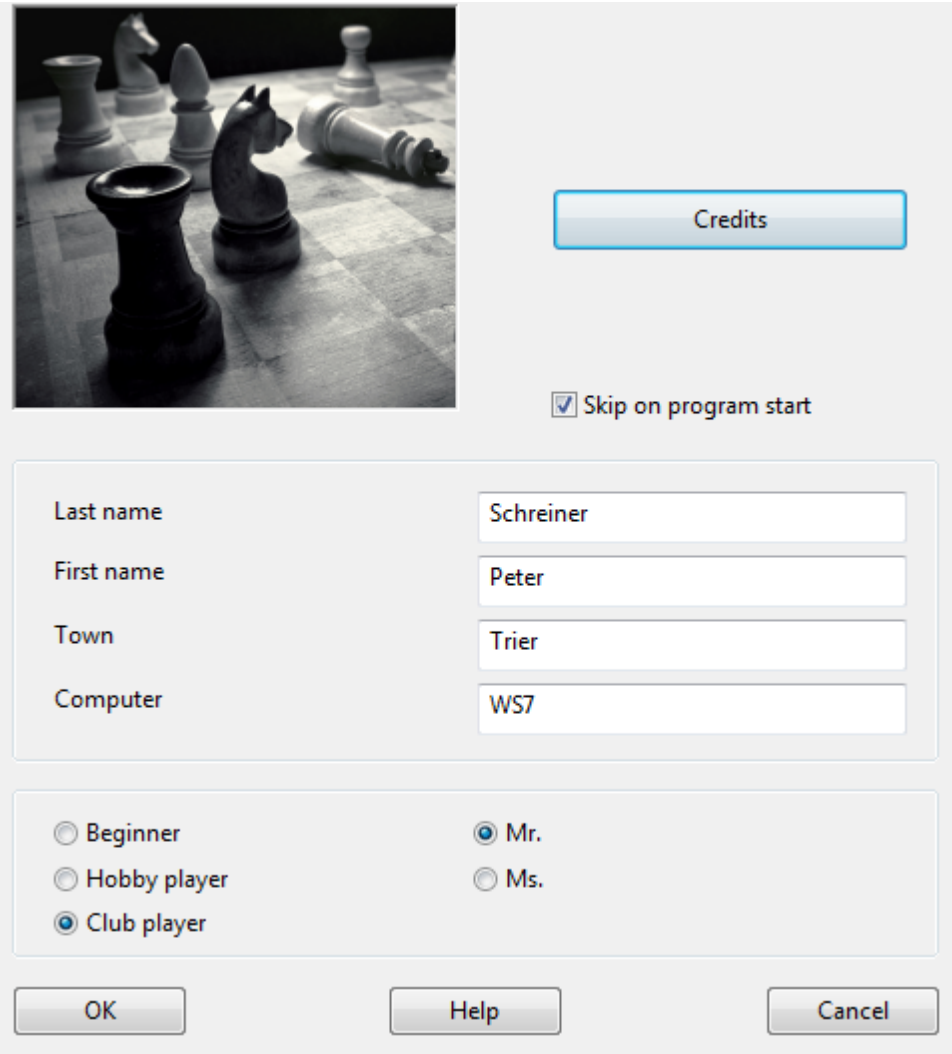
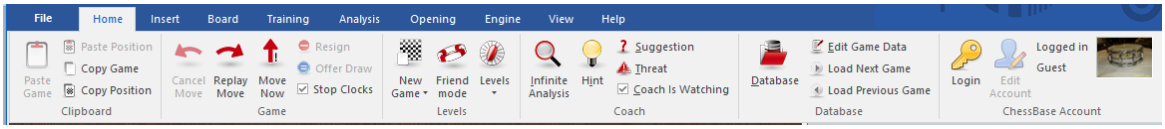


The user information is used when saving games and for the chatter messages on the screen. It can easily be changed by clicking "User info" in the "Tools" menu.

2.17 Program windows

2.17.1 Window "panes"

Menu - View



This opens a submenu in which all the the program windows are listed. They are called "panes" because most are normally nested in the main program window that is currently being used.
The individual panes can be switched on or off. You can also close them directly by right-clicking them and selecting “Close”.

Here's a description of each window element:

Notation	The game notation, variations and commentary.
Clocks	Chess clocks with optional engine logo.
Main Engine	Provides information on the thought processes of the chess engine during the game. It can include a variation board.
Evaluation profile	Graphically displays the evaluation and times used in the course of the game.
Extra Book pane	A separate window for the openings book "tree" with full statistics for each move (normally this is a rider in the notation pane).
Analysis Board	Displays a separate board for analysis.
Control board 3D	This produces a second board which you can use to follow the game (especially if the main board is in 3D and hard to read).
Extra Book	A separate window for the openings book "tree" with full statistics for each move (normally this is a rider in the notation pane).
Chatter	Displays the program's written remarks during the game.
Explain all moves	Explains all the moves in the current position.
Chess Media System	A special audio and video system that allows you to see a player or teach who moves the pieces on the graphic chessboard.

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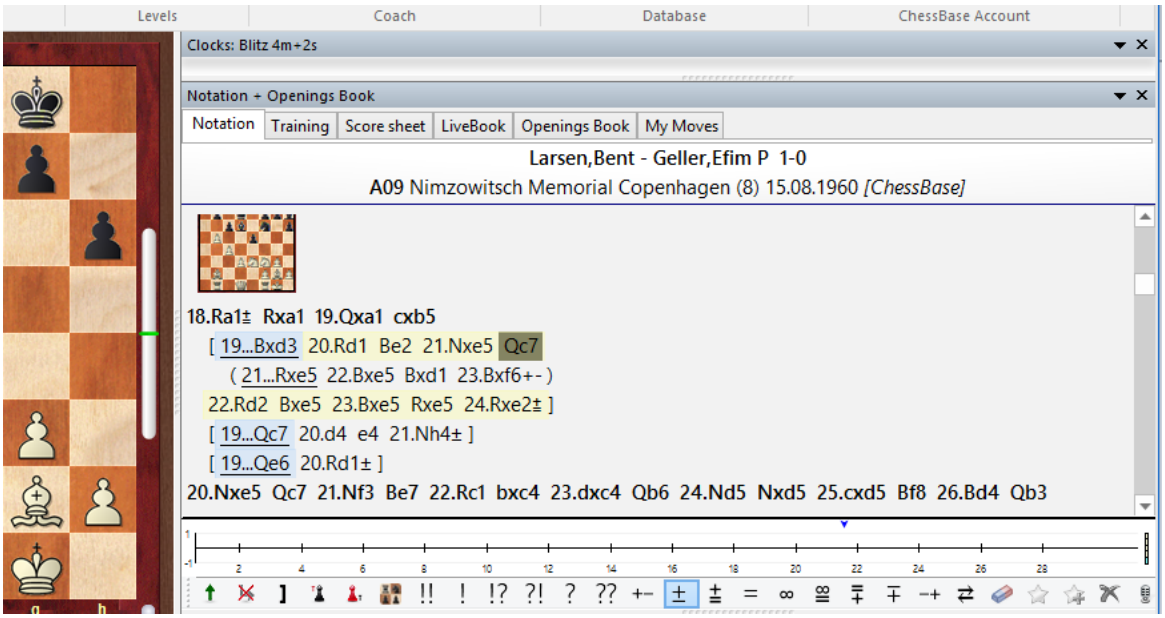
2.17.2 Notation window

The *notation window* displays all the moves of the game.



With an Internet connection, the program has direct access to a player lexicon is stored on our servers and can display pictures of the players.

There may be variations and commentary embedded. You can jump to any place in the game by simply clicking on the notation – the board will follow. The cursor keys can also be used to navigate the moves.

At the top of the notation window there is a tab for *Openings book* . This allows you to browse through the openings book.

Score sheet notation

In regular games with no commentary you may find it better to use the score sheet style of notation. Click on the rider above the notation to select it. Note that this notation can be printed out very nicely using the menu File – Print scoresheet.

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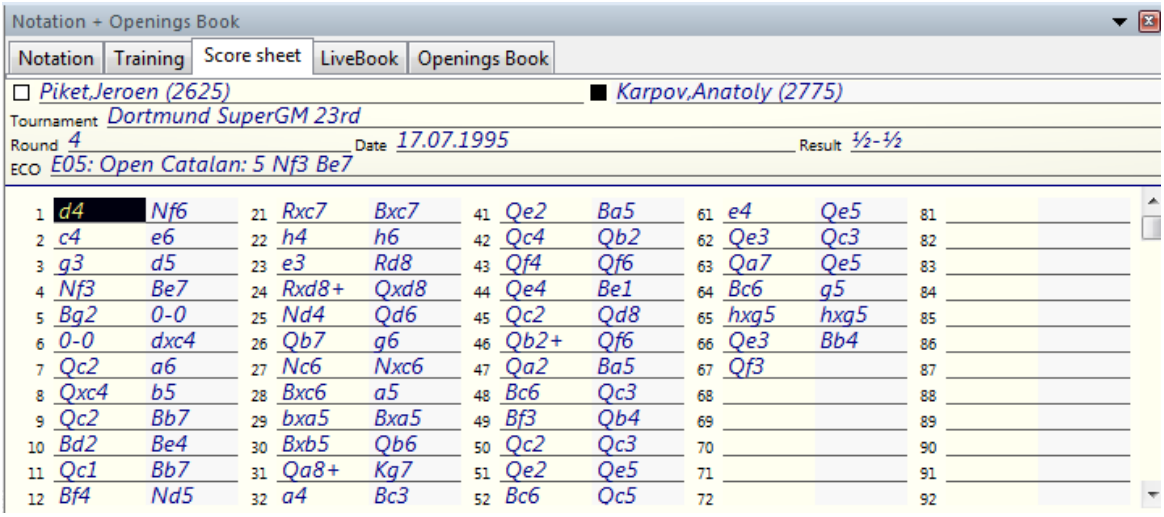

Some users may encounter problems with the screen notation and printing. Specifically the chess symbols are not correct.

▸ **Cause:** The program uses special TrueType fonts for the chess notation and the board pieces. These may sometimes not be installed properly together with the program. This is especially the case if you do not have administration right to install fonts on the system.

▸ **Solution:** Manually install the fonts using the Windows control panel. All the chess fonts are to be found in the directory \FONTS on your program DVD. You can also try the reinstallation of the program to solve the problem.

2.17.3 Different displays in the engine window

When in ChessBase or Fritz you start a chess engine in order to analyse, the active engine also shows the number of nodes calculated. A mouse click on **kN/s** enables you switch between the customary total enumeration of all the nodes which have been calculated so far and the number of nodes being calculated per second.

When comparing various engines you will note that the performance of individual engines varies greatly with respect to the number of nodes evaluated. First and foremost, this display should be looked upon as useful supplementary information. In no way does this information – nor the depth of calculation displayed – tell you anything about the practical playing strength of an engine!

A very useful tool in the engine window is the "rolling mode" with which the display of information relative to the calculation can be altered. The settings can be chosen in the analysis window with a right click.

Copy to notation" leaves you with the choice as to whether only the presently best variation should be shown or all main variations one below the other.
"Extra search info" displays extra information concerning evaluation, search depth, thinking time used and number of nodes.

The effect of "Scroll New Moves Only" is that a new move will be displayed in the list

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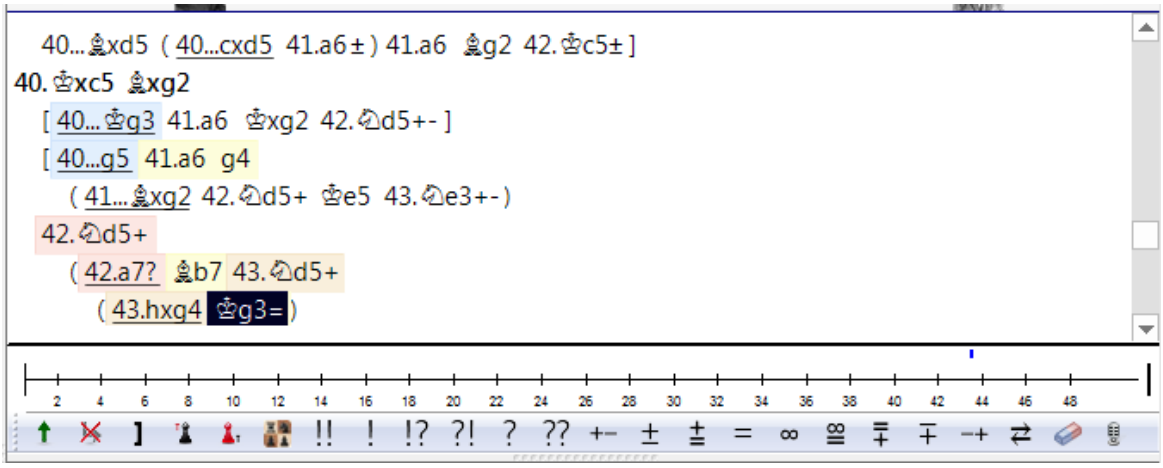
only if the evaluation of the best move up till then needs to change. In this mode it will be crystal clear for you to understand which moves the engine has been "considering" during its search.
In analysis mode a right click in the engine window allows the option "Lock Engine". Whilst the engine is continuing to calculate further on the position at that point, you can continue to play through more moves on the board or add comments. A right click takes you immediately back to the position on which it was locked. In analysis mode the option is there to directly start the selection dialog for chess engines with a click on the engine name. Locking can also be initiated with a mouse click on the small lock symbol above the node counter.

After you have chosen an alternative engine the latter immediately starts analysing the present position. This method allows you to switch instantly between the various engines. A very useful option in analysis mode can also be started via a right click in the engine window. By means of "Next Best" you start calculation by the engine present afresh and you ignore in the analysis the move which had been investigated up till then.

2.17.4 Clear notation with coloured highlights

Games which are heavily annotated with variations, such as for example opening analyses, are more clearly structured and easier to read with the new version of the program. What has made it possible to make one's way better through the deeply nested variation trees is the marking of the variations with different colours.



The effect can easily be seen by trying it out. When playing through a game you recognise within the notation alternative moves of the same level of importance because they are highlighted with the same colour.

Alternatives to the current variation are made to stand out as though with a text highlighter pen. The user can spot at a glance which move order brought about the present position and what the continuation looks like.

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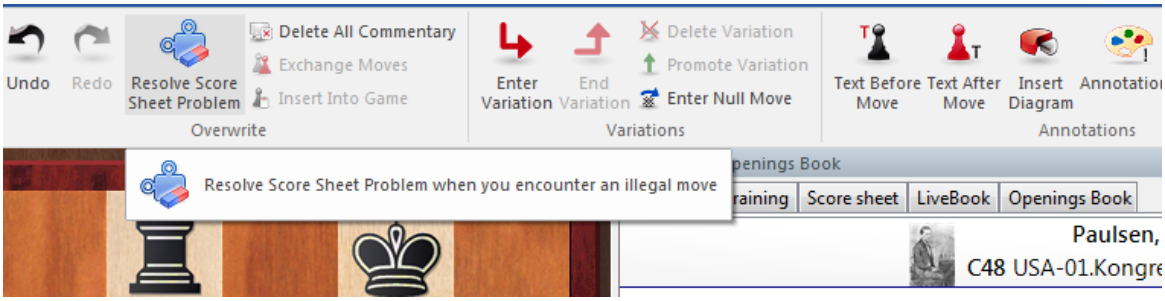
2.17.5 Correcting notation

The program is very well suited to entering game notation manually and saving the games. This is frequently made use of for saving one's own games or for tournament organisers who want to document the games of their tournament in a database.

One typical problem encountered when entering games from scoresheets: suddenly a move is found to be illegal because a previous move had not been entered correctly, e.g. because the notation was very difficult to read.

Fritz16 now offers a tool to correct these mistaken entries.

The relevant function can be found for example in Entry mode where it is available under "***Resolve Score Sheet Problem***".



In this dialog you can edit every move and the program carries out a legality check for the moves follow.

The user can enter or remove moves directly on the chess board displayed.

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You will spot at a glance whenever the correction of a wrongly entered move repairs the remainder of the notation. Any illegal moves which result from it are displayed in red.

For every position the drop list displays all legal moves, with that list being sorted according to the tactical plausibility of each move.

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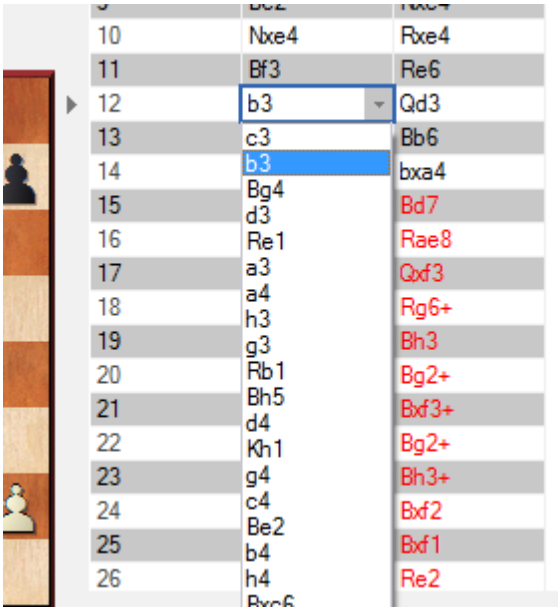
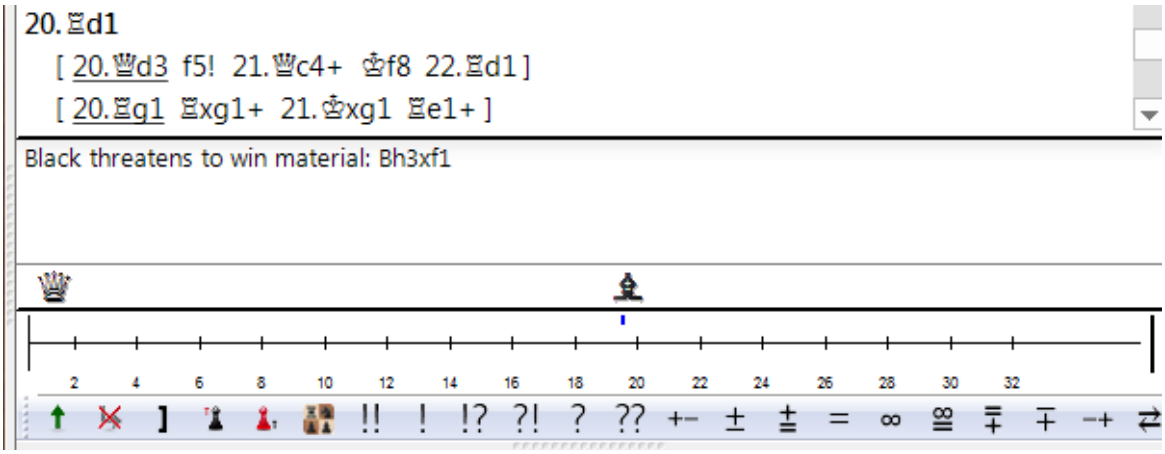


Additionally, the user has the option to insert complete pairs of moves.

2.17.6 Display of the balance of material

Underneath the notation window is the well-known display of the balance of material.

In the bar with the small symbols for the pieces you can spot at once the distribution of material between the two sides.



Tip: An important thing in understanding this display: what is shown in the bar is not the pieces which have been captured, but only the differences in the distribution of material.

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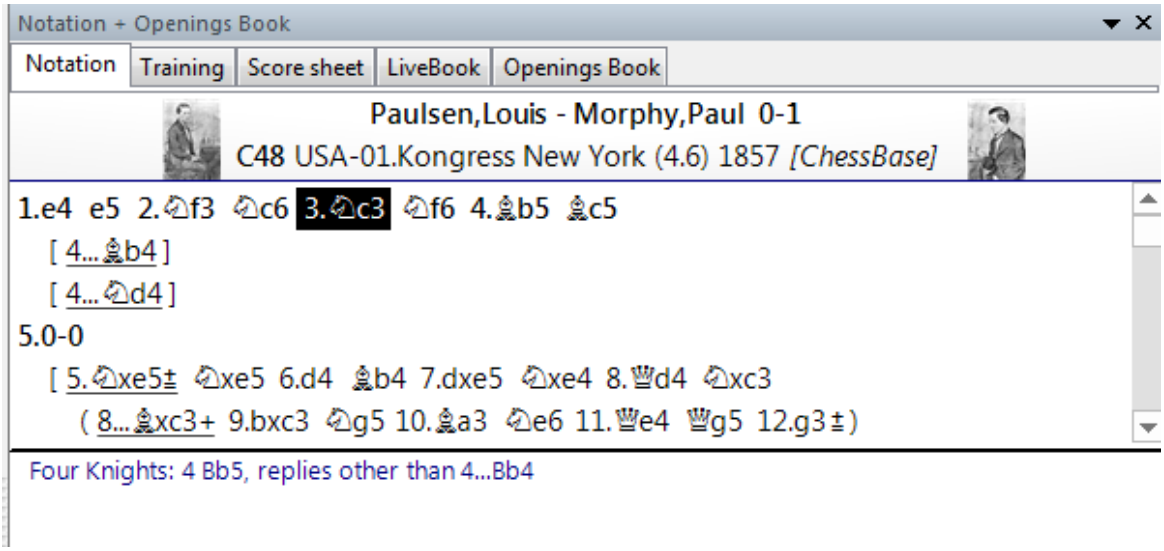
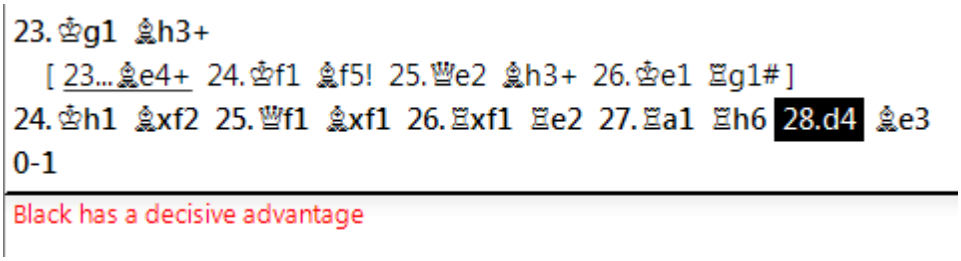
If you click on the first move of the game notation, you will see in the same bar the full name of the opening.



In addition, this window can be used to access an immediate evaluation of the position, without an engine running in the background.

For that to be displayed, simply click on the board on any piece of the side whose move it is. The program immediately displays the evaluation in the form of a textual comment, e.g. "Black is clearly better", etc.



2.17.7 Book window

In the initial phase of a game the program plays out of an "openings book". This can consist of millions of openings positions, and for each of these the program has full information on which moves were played, how often, and with what results. The program stores its own experience with openings variations it has played. It learns from success and defeat.

See also LiveBook ...

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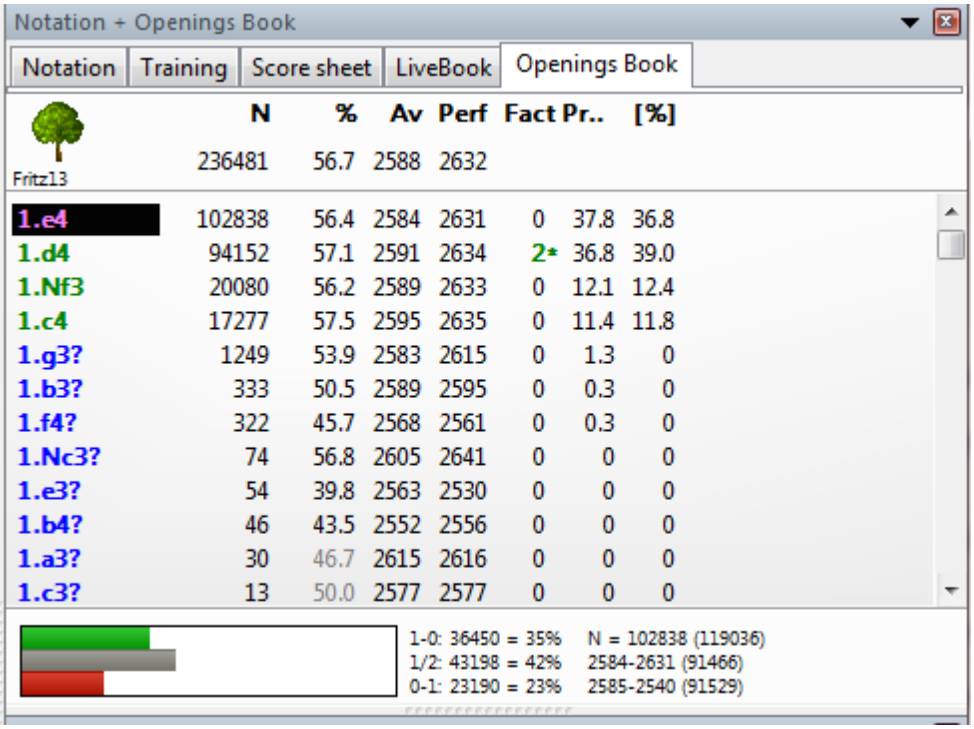
You can consult the openings book by clicking on the *Openings book* tab at the top of the notation window (if an openings book is not loaded, click the button and select one from your hard disk).



Extended Book Display ....
This is what you see in the openings book tree:

- **Moves**: (Tree icon) Sometimes a move will appear in grey, which means that it was never played, but leads to a position that results from some other line.

- **N**: (N) The header displays the total number of games which led to the current board position. The N column displays the number of games in which each move was executed.

- **%**: Percentage score achieved by the move, always from the point of view of the colour to play. If the number of games is low, the percentage is given in grey because it does not have great statistical significance.

- **Av**: Elo average of the players of the move. If only a small percentage of the players had a rating, then the number is given in grey.

- **Perf** : Elo performance of the move. This is the rating a player would have achieved in a fictitious tournament, playing the move in all his games.

- **Fact**: The factor or "weights" allocated to each move control the probability with which it will choose the move in a game. The value can range between –125 to +125. The values are initially set to zero, but may change when the program actually plays games in the individual variations. You could say that the program is learning from

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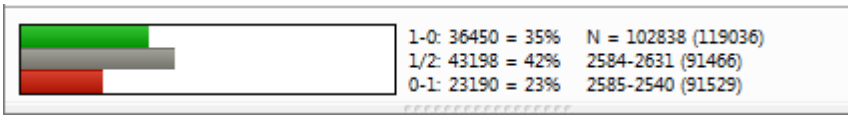
experience. The weights can be manually modified by right-clicking a move and selecting "Change weight". To reset all weights click Edit – Openings book – Reset weights. After that, the program will use only the purely statistical information to select its moves.

- **Prob and [%]**: The first value is the purely statistical probability of the move, based on the number of times it was played and the results achieved in the games that went into the book. This is the probability of the move being played by the program as long as the weights have not been changed – either manually or by automatic learning. The value on the right [%] is the practical probability of the program playing the move. This is a product of the statistical evaluation and the weights. If you change the latter you can see how the [%] value (but not the "Prob") changes. In Book options you can determine how much the weights influence the probability of play.



At the bottom of the Openings Book window there is a graphic display of the percentage wins, losses and draws that were achieved with the highlighted move.

How to navigate the tree

- Use the up/down cursor keys to move the headlight bar up and down.
- Use the right/left keys to move forward and backwards in the variations.
- Click a move with the mouse to move forwards in a variation.
- Right-click a move to annotate it.
- In the same menu you can exclude a move from tournament games. The move appears in red. Repeat the action to make it playable again.
- Press F11 to open and close the tree display window.

Book display option

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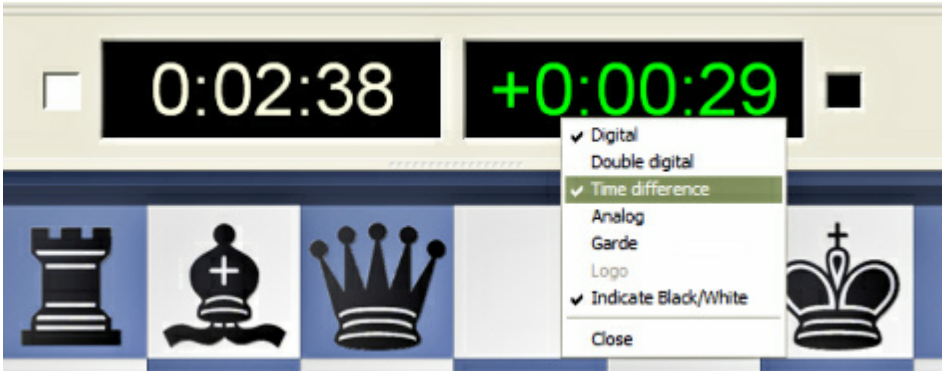
2.17.8 Chess clocks

Right-click the clock window to select

Chess players use a double clock to record the times taken by both sides. The clock on the left records White's time, the one on the right records Black's time.

The double digital clock shows the total time at the top and the time for the last move below.

The difference clock shows the time difference between you and the engine:



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The left clock displays your absolute time. The right time displays the difference to the engine time. In the above example, you are 29 seconds ahead.

You can right-click the clock window and switch to an analog clock. You can also add an engine logo.

There is also a photo-realistic "Garde" chess clock. You can zoom in and out, and also press the left mouse button to tilt and swivel it.

▸ **Note**: You can set the time controls for "Blitz" or "Long games" by right-clicking the chess clocks.

2.17.9 Engine window

This program provides you a wealth of information on the engine thought processes during the course of a game. This is the "search information" and reflects what the computer has found while calculating its next move.

See also Extended Engine Information ...

Let`s Check ...

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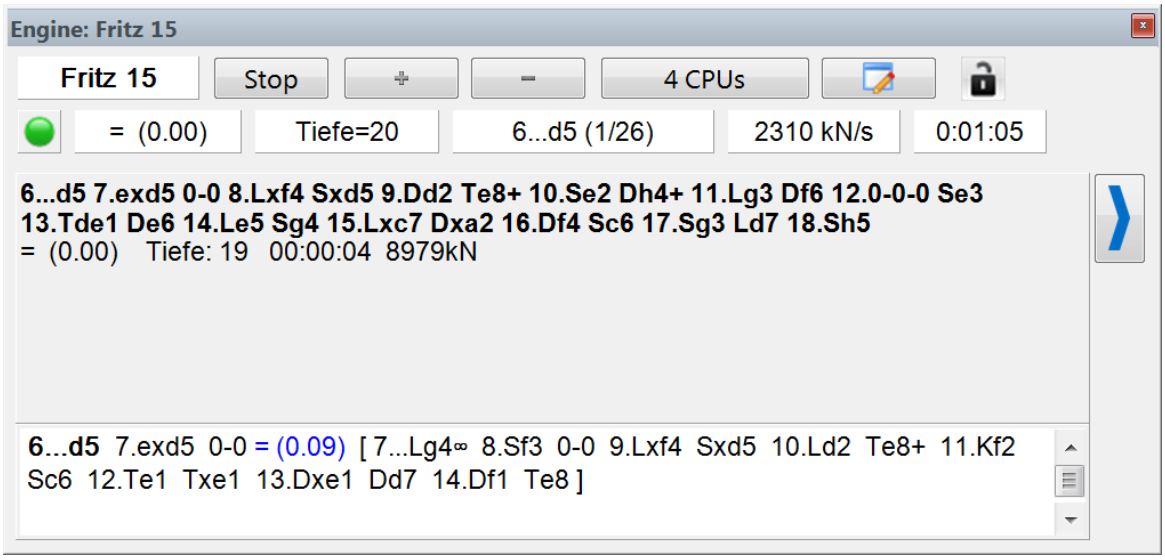

Note: Clicking on a line in the engine window enters this move on the chess board immediately. This works the same way as clicking on a move in the openings book.

- On the top left you can see which chess engine is currently calculating the moves (the actual name will be displayed). Right-clicking the engine name will allow you to switch engines.

- The move it is calculating is 24...Rb8, and this is the first of 48 legal moves.

- The "Stop/Go" button allows you to stop and then restart the calculation, or force a move.

- With the "+" and "–" buttons you can increase or decrease the number of lines that are calculated in parallel (these buttons disappear during a regular game and are only available in analysis mode).

- In the second line there is a lamp which turns red when the engine finds something dramatic (i.e. when the value suddenly rises or falls dramatically). An arrow pointing up or down denotes a "fail high" or "fail low", which simply means that the computer has discovered something good or bad in the position but doesn't yet know what it is.

- The number to the right of the lamp gives the position value, above –0.87. The evaluation is expressed in pawn units, always from the point of view of White (i.e. –0.87 is good for Black). A value of 3.00 pawns would mean that White is a piece up – either a bishop or a knight, which are both equivalent to about three pawns. Rooks are worth five and the queen about nine pawns. If the values deviate from whole numbers this is the result of additional positional considerations (mobility, deployment of pieces, king safety, pawn structure, etc.). In addition to the precise pawn values, the evaluation is also given in standard chess symbols: +– means White is winning, –+ means Black is winning, = means the position is drawish.

- The search depth tells you how many moves deep the search has progressed. The value is in "ply" or half-moves. The first number gives you the "brute force" depth, the second is the depth to which certain critical lines have been investigated. The value is

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in "ply" or half-moves. For instance a display of "depth = 12/30" means that the program has looked at every continuation to a depth of 12 ply (six moves), while some promising or dangerous continuations are being examined up to a depth of 30 ply.

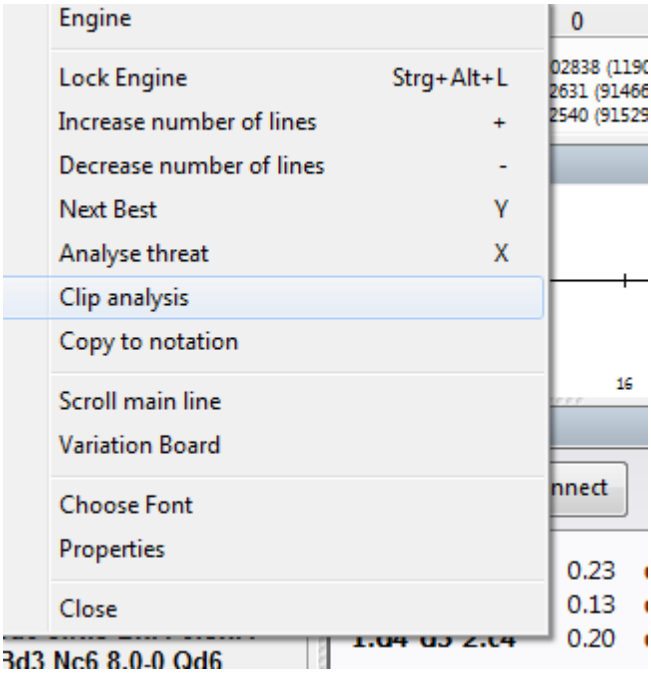
- After it has played a move, the chess engine shows you which move it expects you to choose (in the field after the depth field).

- Finally you can see the speed at which it is running: "634kN/s" means the program is generating and evaluating 634,000 positions per second ("kilo nodes per second"). Right-click this display if you want to see the total number of positions instead.

- In the section below the search information you see the "principle variation", i.e. the best continuation the program has found so far. Together with the search information the total number of positions is also given. In the above example the engine has looked at 4.061 million positions to come up with the third line. You can right-click the display and select more or less information, and decide whether the history of the search should be scrolled. You can also insert a small "variation board" on which you can play through the main line the program is considering.

Right-click menu in the engine window

If you right-click the engine window, you get a menu with a number of functions or options to set.
Some of the items will only be available when the program is in Analysis mode (Alt-F2).



- **Engine**: This allows you to switch engines.

- **Lock Engine:** Normally, in analysis mode, the engine automatically follows the board. However, you can "lock" it to a particular position and then move around the game without the engine following. Click again to unlock.

- **Increase/Decrease lines**: Many engines can calculate more than one line simultaneously. Press "+" or "–", or click the "+" or "–" buttons at the top of the search window to increase or decrease the number of lines it is considering.

- **Next best:** When it is calculating multiple lines the program is sharing it resources

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for different moves. If you click "next best" or press Y, it will discard the best move it has found so far and devote its full attention (processing power) to the next best move. This function is not available in all engines.

- **Threat**: This function shows you the immediate threat (i.e., what the opponent could do if no defensive move is made. The threat is always calculated on the level currently set).

- **Clip analysis**: Copies the current analysis into the Windows clipboard, from where you can insert it into a text processor.

- **Copy to notation**: Copies the analysis into the game notation.

- **Scroll main line**: The program will normally display the entire history of the search (i.e., all lines it has checked so far). You can switch this off and watch only the latest line.

- **Variation board**: This inserts a small board on which you can play through the main line.

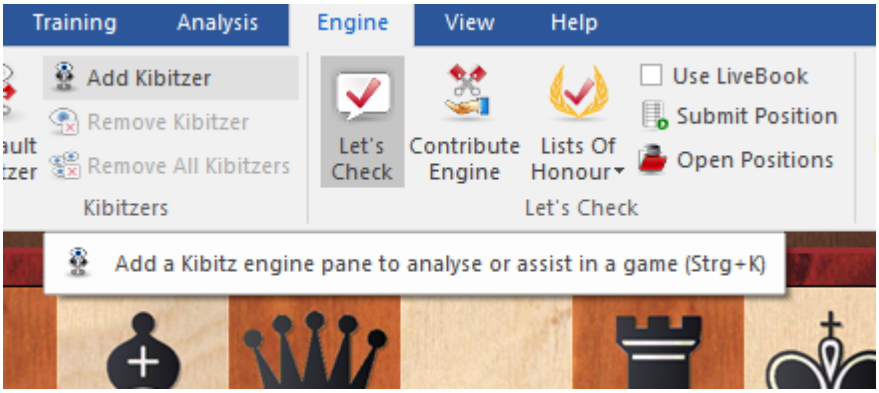
- **Choose font**: Allows you to set the font size for the chess notation.

- **Properties**: This allows you to adjust the engine parameters.

- **Close:** Closes the engine window.

2.17.10 Kibitzers

Menu Engine Add Kibitzer (Ctrl-K)



A "Kibitzer" is a person who watches a game in progress without making any moves himself. A kibitzer is also notorious for giving advice and knowing everything better.

You can add a kibitzer by selecting an engine in the select box that appears.

A new engine window appears in which it can work parallel to the one already loaded. You can use one or more kibitzers (up to six) to help you in your game against the primary engine, or you can use them for a second opinion on a position you are analysing. Remember that they will be sharing the processor power, so the quality of analysis sinks with every added kibitzer.

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Click *Remove kibitzer* or *Remove all kibitzers* to close the additional engine. You can also right-click a kibitzer and "Close" it.

Kibitzer cannot be combined with the "Explain all moves" window.

2.17.11 Evaluation profile

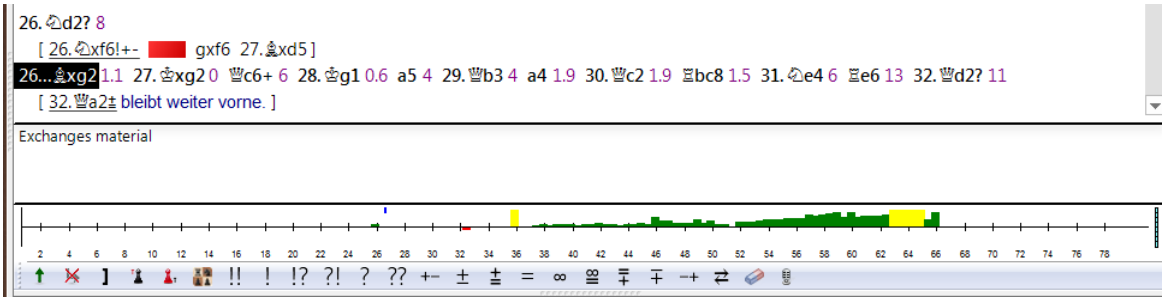
The evaluation profile graphically displays the evaluation and times in the course of the game.

View - Evaulation Profile

Another useful piece of help and guidance during the playing through of games integrated into the game is offered by the Evaluation profile which is generated from tactical analysis. The evaluation profile shows graphically during the course of the game the evaluations of the chess engine. Using the evaluation profile below the notation you can recognise at a glance when playing through a game just when it "turned" one way or the other.

The evaluation profile is generated from the tactical analysis and saved along with the game. When you load the game at some later date the profile is available to you and is displayed beneath the notation. The profile is also displayed in those games which you have downloaded from live.chessbase.com.

The evaluation profile offers a graphical view of the use of thinking time and the evaluation of the positions during a game.



This is how to read the evaluation profile:

Bar above line: advantage for White
Bar below line: advantage for Black
Green bar: advantage for opponent
Red bar: advantage for the computer
Yellow bar: goes beyond the scale of the current window.
The scale is given in "centi-pawns" = 1/100ths of a pawn.
Superimposed in the evaluation profile is the time each side has used.
Blue graph: time used by White
Black graph: time used by Black

The scale is in seconds.

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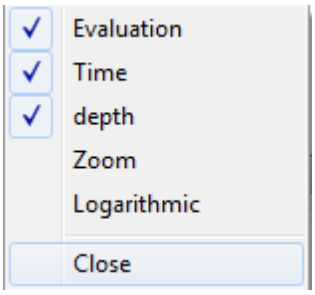
Right clicking on the evaluation offers different views:



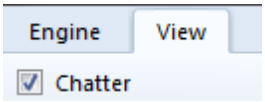
The new option is the *Logarihmic* view, which becomes useful when the evaluation is a large number, such as +/- 5. When a game is observed which one side has won slowly it is easier to see the progress if the display is non-linear, i.e. small differences remain apparent even if there are large values. The theory behind this is that the difference between +5 and +7 is irrelevant, but the difference between +0.2 and +0.4 is important.

Additional features

- The graph below the horizontal axis gives the search depth of the program.
- On the right there is a "thermometer" showing the evaluation graphically.
- You can click on the evaluation profile to jump to that position in the game. This is useful if you want to quickly go to the position in the games where the tables turned. There is a little blue pointer which always shows you where you are in the game.
- You can right-click to hide/show the time and/or the evaluation profile.
- Right-click on Zoom to enlarge the display.

2.17.12 Chatter window

View Chatter



During a game the program will also chatter in written form, ("Don't you think that's a wee bit daring?"). This is normally displayed in the status bar at the bottom of the screen, but you can give it a separate window where it is easier to read. As with the spoken "Talk", these remarks depend on the progress of the game and the last move played.

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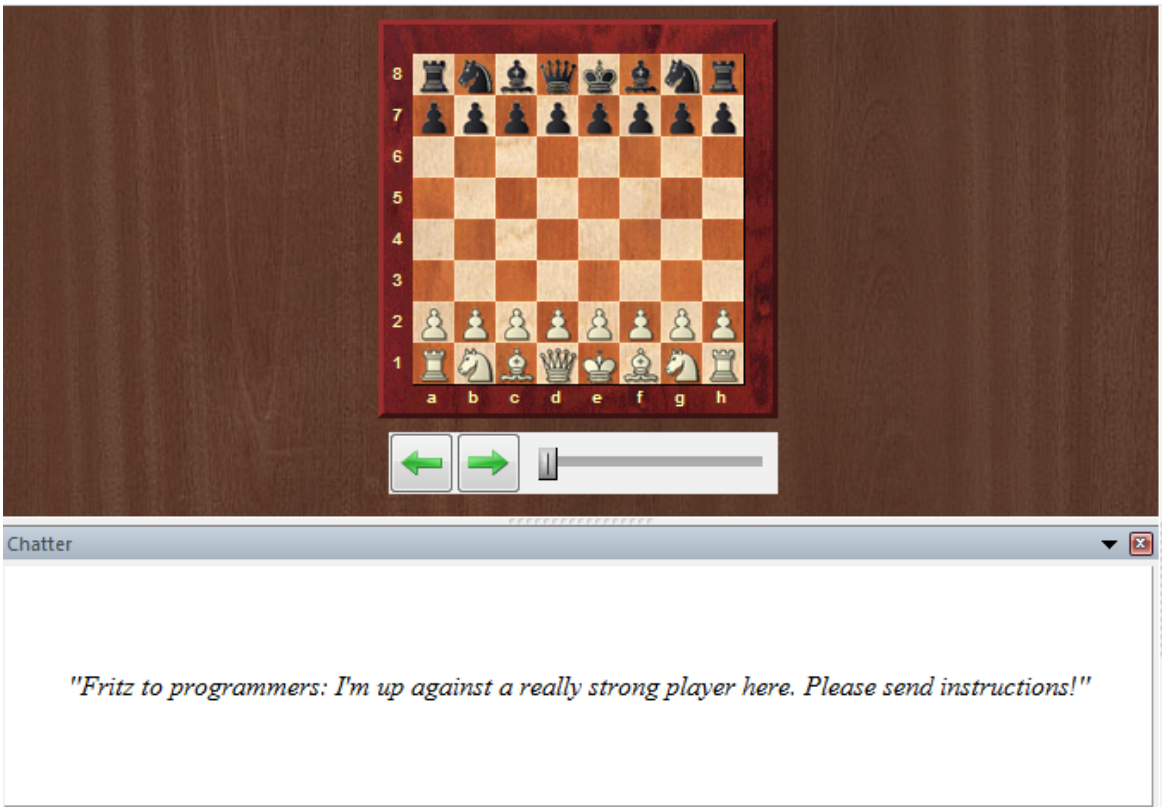

Here are some examples from well over a thousand that might be used:

"Another game? Sure, why not. Why not indeed."
"Normally I'd fight you to the death, but in this case I'll make an exception. I accept the draw."
"I can't believe it. How could anyone play so badly! I resign. Congratulations."
"Damnation, a check. You know how I hate that, Frederic!"
"Outplayed by a human! How very, very embarrassing!"
"I believe you have taken back three moves now."
"Wooosh, right across the board!"

2.17.13 Openings display

Although the box "Show opening" reached via File – Options – Game has been ticked, nothing appears at the bottom of the screen such as I was accustomed to find with previous versions of the program (e.g. Fritz 12). How can I activate this informative display?

Very probably, under the menu item "View" the box for "Status Bar" has not been ticked.

Once this option has been activated, the display of opening classification also works.

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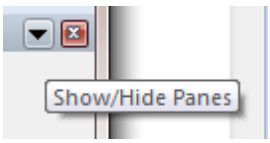
If you click on the first move of the game notation, you will see in the material balance the full name of the opening.

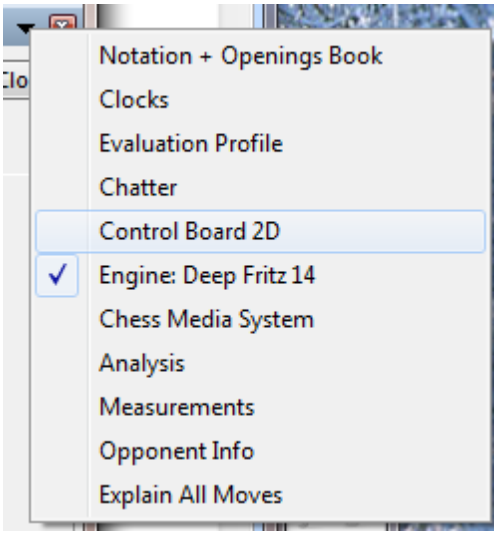
2.17.14 Window Pane Icons

The program has additional icons for the important window panes.



Clicking on the ***X symbol*** closes the window.

Clicking on the arrow opens a small menu. This menu allows the user to quickly hide or display window panes if and when they are needed.



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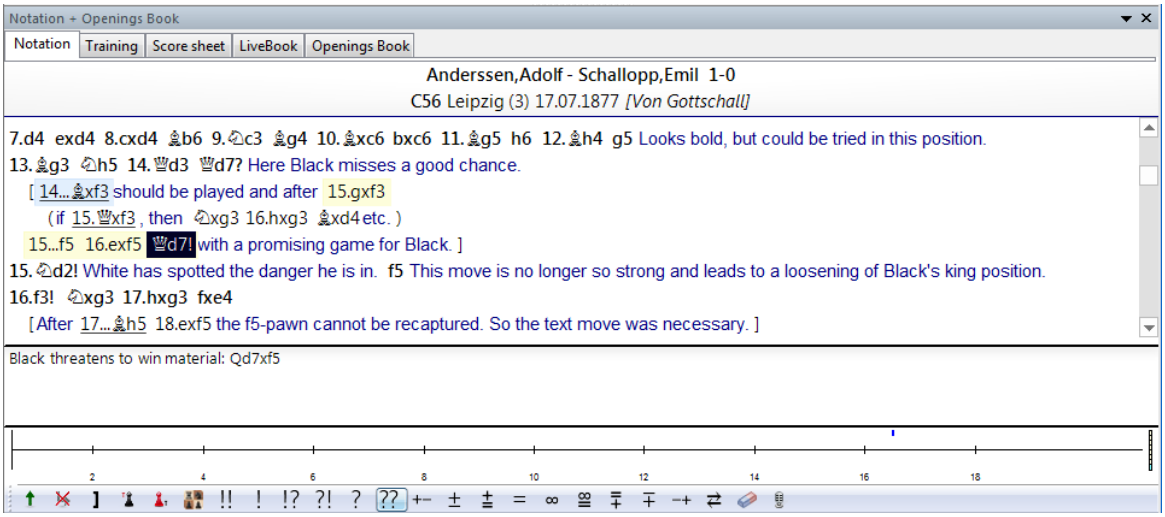
2.18 Move entry

2.18.1 Chess notation

One of the most important factors in the advancement of chess knowledge was the invention of an efficient notation to describe moves. It is done with the help of piece names, eight file letters (a – h) and eight rank numbers (1 – 8).



To record a move you need the following:

- A move number. Move 1 is a move by White and then one by Black. Each of the components is called a "ply" or "half-move".
- A piece letter (for king, queen, rook, bishop and knight). You can also use "figurines", small images of the pieces.
- Co-ordinates designating where the piece moves to.

The piece names are

King	**K**
Queen	**Q**
Rook	**R**
Bishop	**B**
Knight	**N**

The initial for pawns is omitted, only the move co-ordinates are given.

- In long algebraic notation you use the piece letter, followed by the start and destination squares. Example: 1.Ng1-f3.

- In short algebraic notation you use only the destination square whenever possible. Example: 1.Nf3, because only the knight on g1 can move to f3. If there is an ambiguity, you have to supply an additional letter or number. Example: 5.Nbd2 if two knights can move to d2, one from b1 and one from f3. If the knights are on b1 and b3 you would write N1d2.

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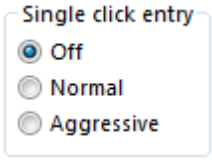
- Pawn moves are given without a letter for the pawn. Example: 1.d2-d4 or 1.d4
- Captures are denoted with an "x". Example: 3.Nf3xd4 or 3.Nxd4.
- Checks are marked with a "+", checkmate is "#".

Note: You can switch between long and short algebraic notation in the menu Menu File – Options – Notation.

2.18.2 Entering moves with single click

In blitz games against the computer you may have a winning endgame, but you cannot enter the moves quickly enough.



To avoid this unsatisfactory situation, we have implemented a special single click entry mode:

- If you click a piece that has only one legal move, then it is immediately executed.
- If you click on a piece that has more than one legal move, but if one of these captures a piece that has just moved, then that move is automatically executed (typical recapture sequence). Otherwise you must use a second click to show the program which square the piece must move to.
- If you click on a square to which only one piece can move, then the program executes that move. If more than one piece can move to the square, then you must use a second click to show the program which piece – except if one of the pieces has executed one of the last two moves. If that is the case, then this piece is automatically chosen. This allows you, for instance, to give a series of checks very rapidly.
- If you click the squares g1 or g8 and short castling is legal, then it is executed.

Dropping

There is a special technique called "dropping". This entails picking up a piece while your opponent is still thinking and holding it over the destination square. As soon as the opponent's move comes you let go of your piece, using practically no time on your clock. It is a slightly dangerous technique – if the opponent plays something unexpected you may let go the piece and then face disaster. Still dropping is used extensively in fast games on the chess server.

Premove

While your opponent is thinking you can already enter one or more moves, especially when they are obvious. It is marked with a green arrow and immediately executed

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when it is your turn. This saves a lot of time and is especially useful in endgames, where you might pre-enter an entire series like a2-a4-a5-a6-a7-a8. Note that right-clicking the board will delete clear all pre-moves.

2.18.3 Move Input

When entering moves on the 2D board the source and destination squares are clearly marked in the "mouseover" mode.

What does „mouseover" mean? For instance, if you move the mouse cursor over the program's buttons a small text box with information is displayed. Mouseover offers additional information which is relevant to the position where the cursor is.

The following examples show the meaning of Mouseover while entering a move.

White selects the pawn on e2 and moves it while holding down the mouse button. The source field e2 is marked with a circle. When the mouse moves over the square e3 the square is coloured.

When you enter moves on the 2D board there is a little highlighting of the starting square and the possible target squares.

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The staring square is highlighted with a little circle. The possible target squares are also highlighted in colour.

As you try it out you will quickly recognise the logic behind the system.

Safe target squares are highlighted in blue, critical squares in red.

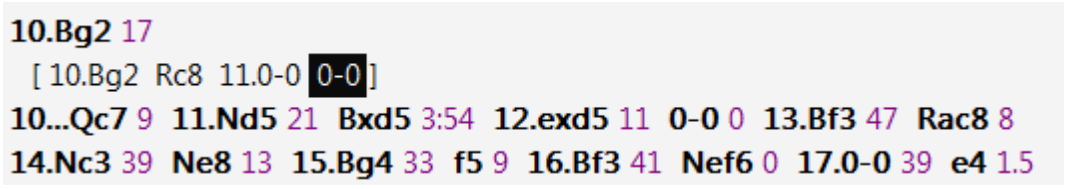
If White continues to move the pawn to the square e4, this potential destination field is then coloured. The program is using graphical aids to help avoid illegal moves on the chess board.

This is also extremely useful in rated games and games on the Playchess chess server.

2.18.4 Variations

A variation is an alternative to the next text move. Basically you take back a move and enter another one instead. In the game notation the variation is given in brackets and indented.

Entering moves has been made much easier. The variation dialog pops up less often. If an alternative move is entered in the notation a variation is usually created without a variation dialog being displayed.



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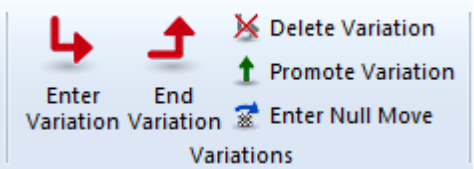
A variation can be started by simply entering an alternative move, which automatically produces a variation window.

You can also use the annotation palette or the actions available in the Insert – Variations menu:



Enter variation
Takes back the current move and allows you to add an alternate line (equivalent to pressing "T").

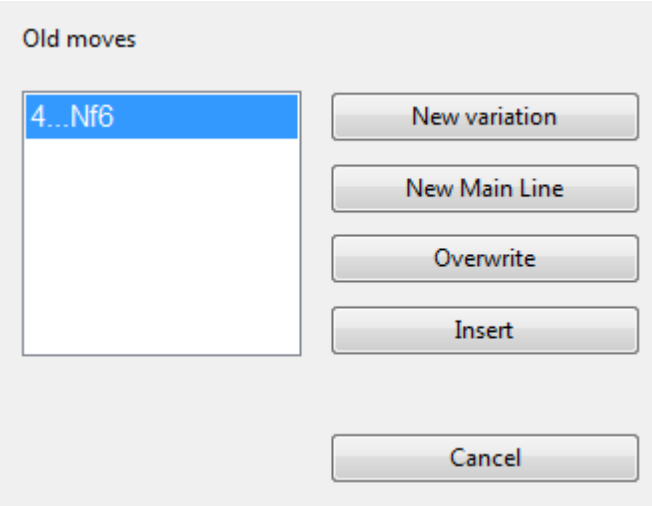
End variation
Ends the variation and jumps to the main line, so you can continue entering the moves of the main line.

Delete variations
Removes the current variation and all subvariations from the game. Ctrl-Z will undo.

Promote variation
The current variation is promoted to the next-higher level, and the variation there becomes the subvariation. Ctrl-Z will undo this action.

The variation dialog is displayed if an alternative move to the last move is entered, because this is a case in which errors frequently have to be corrected.

Note: If you press the CTRL -Key + a Mouseclick, the Variation dialog is always started!



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2.18.5 Entering moves on the keyboard

Because of the beautiful graphical interface of the program, you will probably want to enter moves using the mouse. There is, however, an interesting alternative. You can type in moves on the keyboard, a facility some experienced chessplayers might prefer.

To enter moves on the keyboard type in the start and destination square, e.g. g1f3.

2.18.6 The right mouse button

Use of the right mouse button has been logically integrated in Fritz16.

You can use the right mouse button for more than just accessing context menus, e.g. right click Chess board – Board design.

There are other ways of making use of it.

Easy Game - Calculation Training

After activating *Calculation training* you can then input further moves on the chess board, but the actual position on the board does not change. So the user does see the follow-up moves to the variations he is calculating in the notation, but not on the graphic chess board. Like this, you can at any time during critical phases of the game train your calculation of variations in a targeted fashion. By clicking within the notation you can start calculating alternative variations at a different point and in this way you can produce complete variation trees with alternative branches.

What is especially recommended is to activate the function whenever the program draws your attention to a tactical possibility. ("There is something here …").

A **right click** on the chess board allows you to have direct control over the final position calculated.

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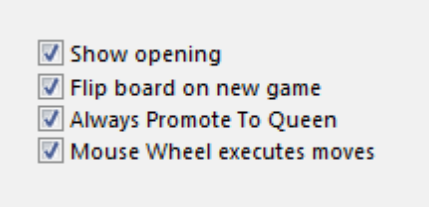
2.18.7 Mouse wheel

Playing through games

The mouse can be used to play quickly through a game you have loaded. In order for this to work, the option must be selected among the list of options.



The setting "*Mouse Wheel executes moves*" does this.

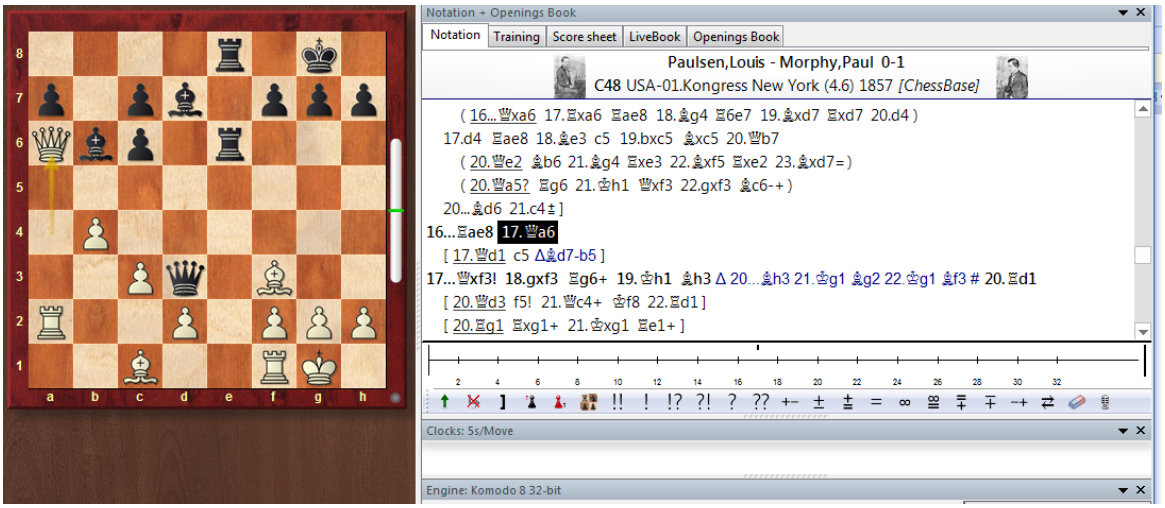
Assisted Analysis

In Assisted Analysis the mouse wheel also has important functions.

Load a game and test this in a middlegame position.

This example is taken from the famous game **Paulsen – Morphy 1857**.

Morphy sacrificed the queen with 17 ...Qxf3.



If in this position you roll the mouse wheel back and forward over the last piece to

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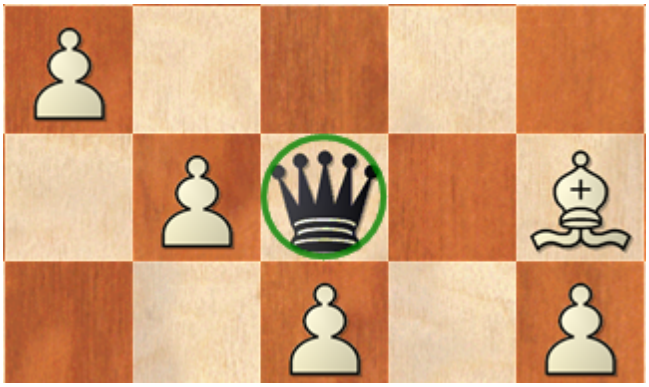
move, *Assisted Analysis* marks with a decent green circle the best piece to move in that situation.



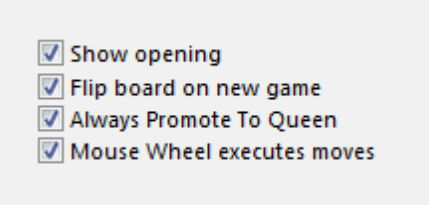
Like that the mouse wheel gives a decent hint as to the best possible continuations when you are playing through games.

2.18.8 Mouse wheel not working?

The scrolling function with the right-hand mouse button for the playing through of games is not working? Has that to do with the mouse or is an update of the program required?

The working of the mouse wheel is supported by Fritz16. You must, however, activate the function.

That is done under Menu ***File*** ***Options*** ***Game***.



There you will find the entry "*Mouse Wheel executes moves*".

This also activates the right mouse button's play-through function.

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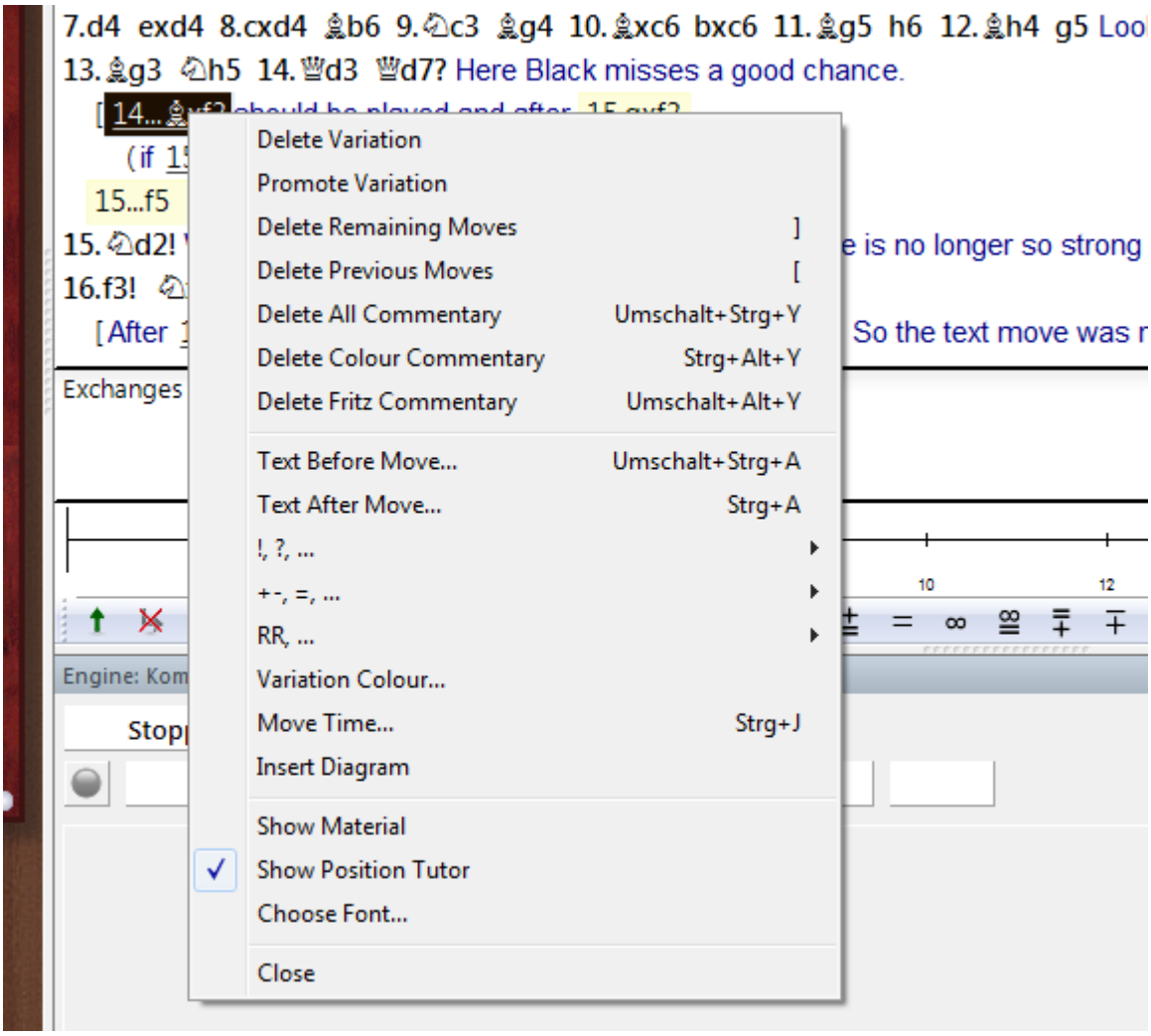
Note: If the option is active, the program does not offer any hints via Mousewheel!

2.18.9 Edit and annotate game

Right-click the game notation or book window



There are a number of functions and annotation tools for you to use. Remember that all changes are made in memory only. You must "save" or "replace" the game, as described in the previous sections, if you want to store them on disk.

Delete variation
This removes a line (and all its sublines) from the game. It applies to the line in which the notation cursor is currently located.

Promote variation
This raises the current variation to the next-higher level, making its parent line the subline instead.

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Delete previous/remaining moves
Removes all moves before or after the current board position. If you delete previous moves, the program automatically inserts a position description so it can load the game fragment later.

Delete all commentary
Removes all variations and text commentary from the game.

Delete color commentary
Removes all coloured arrows and squares from the game.

Delete Fritz commentary
This deletes the search information the program sometimes inserts into the game (when you tell it to do so).

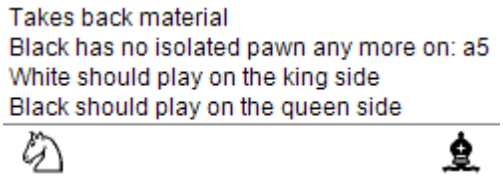
Text before/after move
Both functions give you a text editor in which you can type in commentary, which can be inserted before or after a move. The tabs at the top of the editor allow you to specify the language(s) to use for annotating the game. In the menu "Tools" – "Options" – "Language", you can specify which language(s) should be displayed when you load a game.

!,?... / +-,=..., RR, ...
This inserts chess commentary symbols (e.g., "!!" = an excellent move, "??" = a blunder) or position evaluation (e.g., "+–" = White is winning, "–/+" = Black is better), which appears in the notation of the game and is saved with the moves. RR commentary symbols appear before a move (e.g., "Better is" or "With the idea").

Variation colour
This allows you to change the colour of individual variations, (e.g,. to mark special lines or keep your own analysis in a special colour).

Insert diagram
Marks a position for a diagram in the printout. You can also mark it by pressing Ctrl-A (insert text after move) or Ctrl-D. When you print out the game a diagram will appear in this position.

Show material
Inserts a material balance display at the bottom of the notation window. In our example White has a knight for a bishop and pawn.



Show position tutor
Another useful coaching function is switched on by right-clicking the notation window and selecting "Show position tutor". This fires up a special chess engine which has a lot of chess knowledge. It generates a brief strategic description, in plain text, of the current board position.

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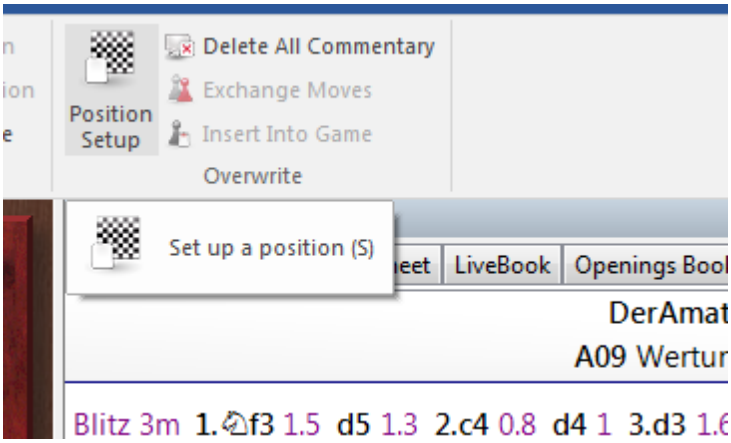
Choose font
Allows you to set the font face and size for the chess notation. Be sure to select one that begins with "Figurine..." so that the chess figurines and commentary symbols are displayed correctly.

Graphic commentary
The program uses coloured arrows and squares to illustrate tactical points and make strategic themes and plans more clear. You can manually enter these using a combination of mouse and keyboard. Press the Alt key and click a square or draw a line from one square to another. This will give you a green square or arrow. Alt+Ctrl does the same in yellow, use Alt+Shift for red. Clicking on the area around the board will remove the arrows and colored squares. All of this is great for chess lectures.

2.18.10 Position setup

Insert Position setup



This opens a dialog box in which you can enter a completely new position.

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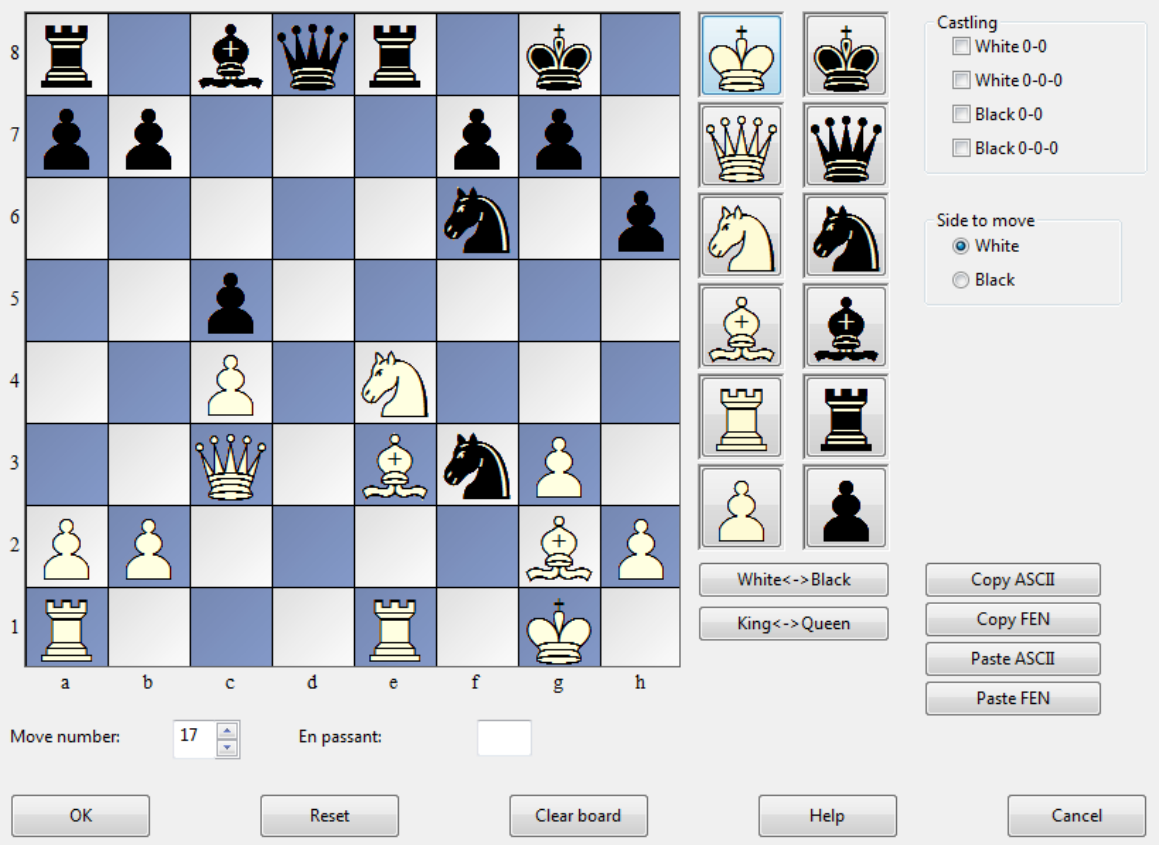

The operation is quite simple:

- Choose a piece type in the columns on the right and put one or more of that piece on the board by clicking on squares. The right mouse key changes the colour of the piece deposited, a second click deletes the entry. You can also drag pieces off the board to delete them.

- You can drag a piece that is on the board from one square to another, holding down the mouse key in the process.

- You can clear the board completely or reset the starting position.

- The buttons "Copy/Paste ASCII", "Copy/Paste FEN" are used to enter diagrams that exist in one of the common text description forms. Mark the position in a word processor or browser and press Ctrl-C to copy it into the Windows clipboard. After that you can switch to position entry and click the paste button. The position will appear on the board. The copy buttons will copy a text description of the diagram into the Windows clipboard. FEN stands for "Forsyth-Edwards Notation", and the similar EPD for "Extended Position Description".

Example of a ASCII position description:

wKd6,Rc8,g8,Pg2, bKh7,Qe1,Pd4,e3,h5,h6
Example of the FEN description of the same position:
2R3R1/7k/3K3p/7p/3p4/4p3/6P1/4q3 w - - 0 1

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You can copy either of the above descriptions out of the Help file and paste it in the position setup.

After you have set up the position you should, if relevant, give the castling status of each side. In a few cases it may be important to know that the side to move can take en passant. Type in the file on which the capture can be made. You can also tell the program which side has the move and whether it should start counting moves from 1 or a higher number. Click "OK" to end position setup.

Mirroring the position

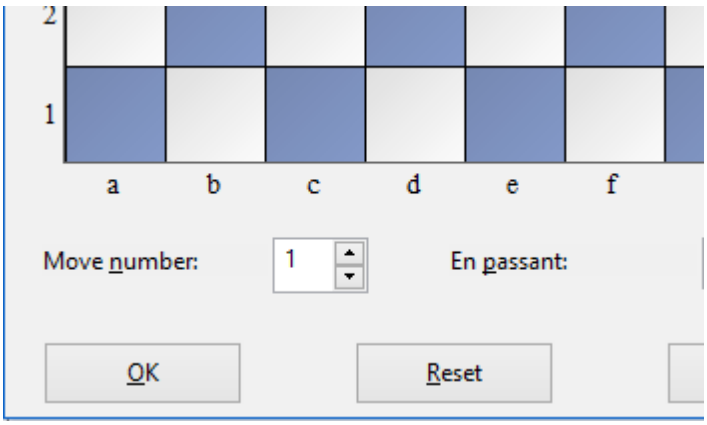
These buttons below the pieces allow you to change the postion in two ways:

- White <-> Black mirrors the position vertically, i.e. between white and black, and changes the side to move.
- King <-> Queen mirrors the position horizontally, so that the pieces on the left are moved to the right and those on the right to the left.

2.18.11 Set Move Number

Question: I would like to enter from a newspaper a game whose recording, For example it begins with the 18th move and the other moves are numbered consecutively. How does this work?

Answer: In the dialogue for entering the position you will find the entry "*Move number*".



With the button "***Move number***" you can set exactly the specification for the numbering.

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2.19 Keyboard

2.19.1 Entering moves on the keyboard

Because of the beautiful graphical interface of the program, you will probably want to enter moves using the mouse. There is, however, an interesting alternative. You can type in moves on the keyboard, a facility some experienced chessplayers might prefer.

To enter moves on the keyboard type in the start and destination square, e.g. g1f3.

2.19.2 Keyboard input for commentary symbols

In order to enter chess commentary symbols into your text annotations, you must use special keyboard shortcuts.

If they do not work properly. it means that the TrueType font "Figurine..." has not been installed correctly. In that case you may not be able to see the left-most column in the table below.

Char.	Keyboard	Meaning
♔	Ctrl-K	King
♕	Ctrl-Q	Queen

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♘	Ctrl-N	Knight
♗	Ctrl-B	Biahop
♖	Ctrl-R	Rook
♙	Ctrl-P	Pawn
→	Ctrl-A	with attack
↑	Ctrl-I	with initiative
⇄	Shift-Ctrl-C	with counterplay
∆	Ctrl-Alt-I	with the idea...
○	Ctrl-S	space advantage
⊕	Ctrl-Z	time, time trouble
↻	Ctrl-Alt-D	development advantage
⇔	Ctrl-L	file
⇗	Shift-Ctrl-D	diagonal
⊙	Ctrl-Alt-Z	zugzwang
⊞	Ctrl-Alt-C	centre
╳	Shift-Ctrl-W	weak point
□	Ctrl-O	only move
∟	Ctrl-W	with
⌋	Ctrl-Alt-W	without
⟪	Ctrl-Alt-Q	queenside
⟫	Ctrl-Alt-K	kingside
⊥	Ctrl-E	endgame
	Ctrl-Alt-P	pair of bishops
◪	Ctrl-Alt-O	bishops of opposite colour
■	Ctrl-Alt-E	bishops of same colour
⩲	Ctrl-M	with compensation
±	Ctrl-1	White is better
±	Ctrl-2	White is slightly better
∞	Ctrl-3	unclear
∓	Ctrl-4	Black is slightly better
∓	Ctrl-5	Black is better
⌓	Ctrl-Alt-B	better is

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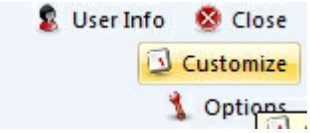
½	Ctrl-Alt-R	draw
♁	Shift-Ctrl-P	passed pawn
○	Ctrl-.	isolated pawn

2.19.3 Customize keyboard

Menu File - Customize...



There are many shortcuts that make the operation of the program quicker and more effective. For instance, **Ctrl-N** starts a new game, **Ctrl-F** flips the board, and pressing the Spacebar forces the computer to make a move.

You can customize the keyboard and assign your own shortcuts, even for functions that do not have any assigned to them.

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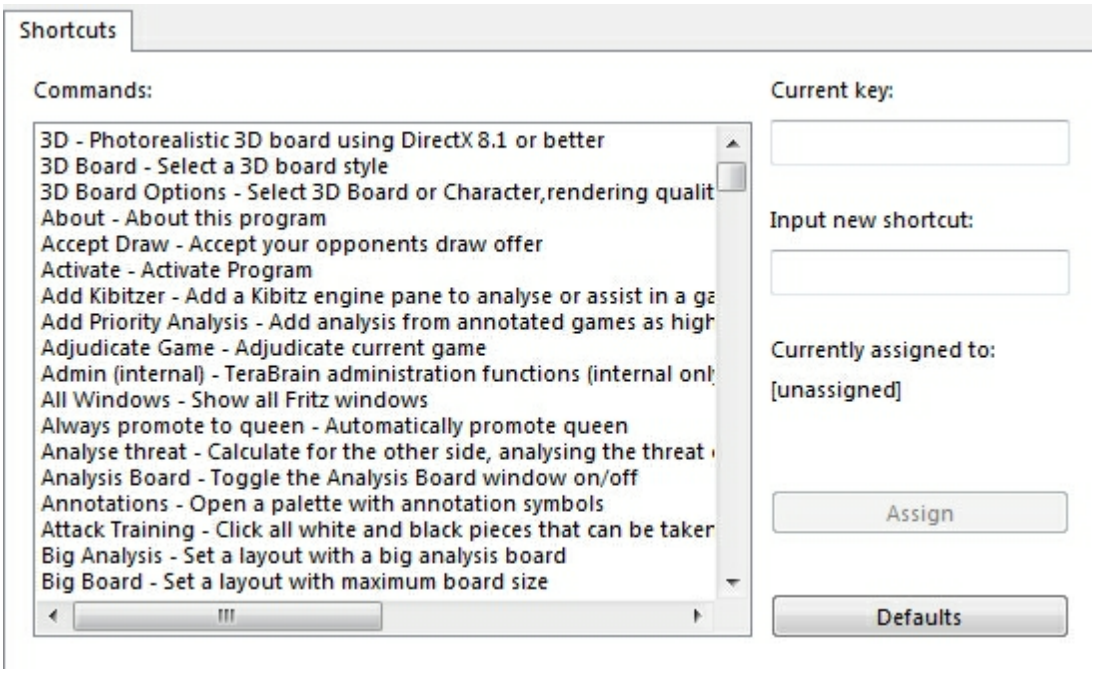


All commands are listed on the left. You can select one and give it a keyboard shortcut by simply pressing the corresponding keys in the input window on the right.

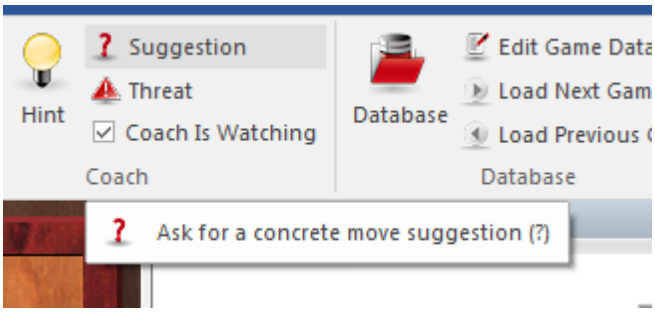
If the function already has a shortcut, this will be displayed under "*Current key*".

3 Reference

3.1 Help during the game

3.1.1 Help and coaching

During a game you can ask the program for advice:



Hint	The program will analyse the position and offer advice
Suggestion	The program will suggest a move
Threat	Displays the direct threat

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Explain all moves	Shows a list of all legal moves and what they achieve
Position tutor	Generates a brief strategic description of the current board position.
Kibitzers	Opens a new window with a different engine which you can consult
Expected move	Displays which move the program is currently expecting
Dynamic Hints	Possibilites for attack and defence manoeuvers are shown for every square when you move the mouse cursor over it
Visualize Search	It uses graphics to display possible plans for both sides on the Board
Measurements	The „hotness" display shows how complicated and tactically „hot" the position is.
Let`s Check	Every position that has been analysed by anyone at any time is voluntarily saved on a server.
Assisted Analysis	offers the user either when entering moves or when playing through a game valuable hints about the tactical consequences of a possible move.
Engine evaluations	When you are playing through and analysing a game the chess program offers useful help and guidance on the evaluation of the current position on the board. You will find the display right next to the graphic chess board.

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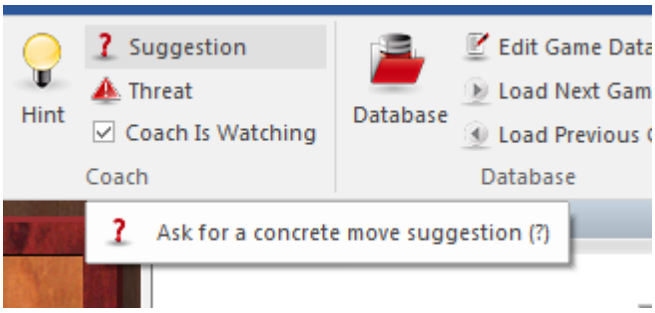
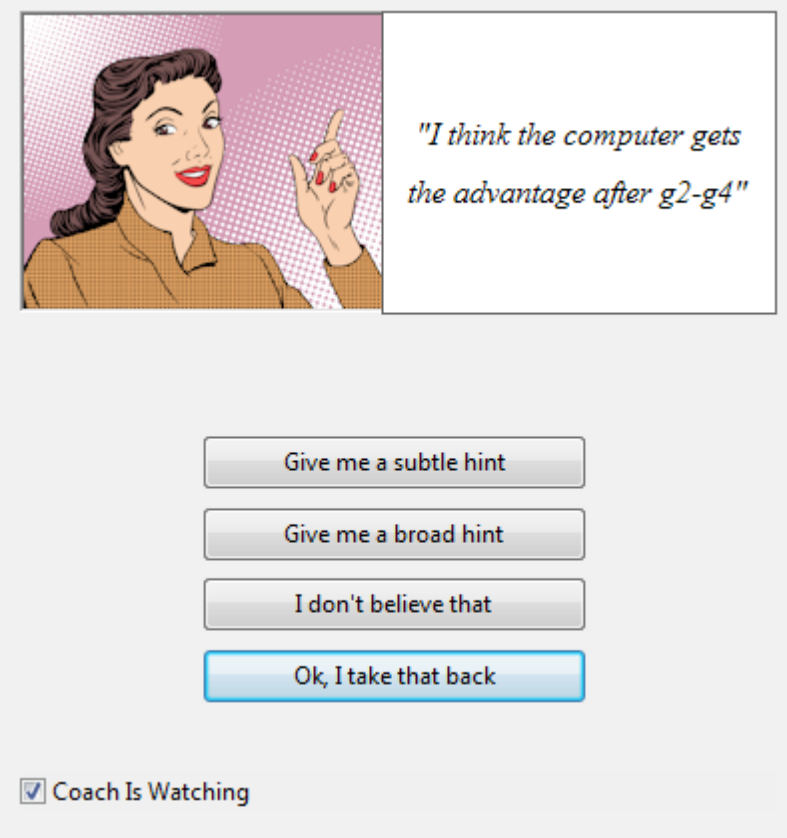
3.1.2 The chess coach

The *chess coach* helps you during a game.



▸ You can ask for a hint. This is not a direct move suggestion. The program offers to analyse the position. The quality of the chess coach help can be set in the game options.



▸ The coach also gives move suggestions.

▸ If you make a blunder or a poor move, the coach appears and offers to help. You can switch this function on and off under *Home* *Coach is watching* .

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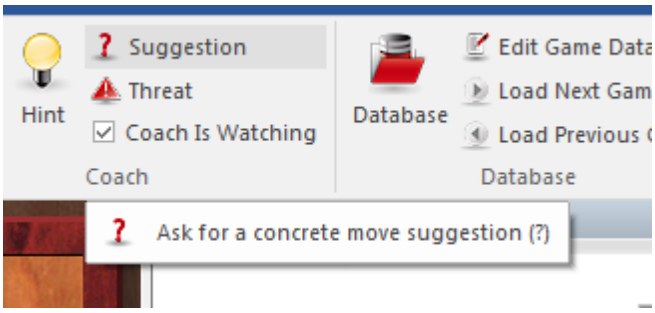
3.1.3 Hint

Home Hint (you can also press F2)



Hint brings up a special window with extensive advice on the current position.

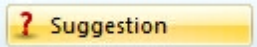
You can click buttons to find out which enemy pieces are attacking your pieces, which of your pieces are under attack, and which are undefended.

The engine's "plan" shows you the threat you are facing from the opponent, and "Suggestion" gives a constructive suggestion on what you should play next.

The quality of the hint assistance depends on the search depth, which you can adjust in the "Game" options.

3.1.4 Suggestion

Home Suggestion (or press ?)



The program will do a quick check and then suggest a move for you. The move is displayed as an arrow on the chessboard.

Er..., er...., well, let me see...

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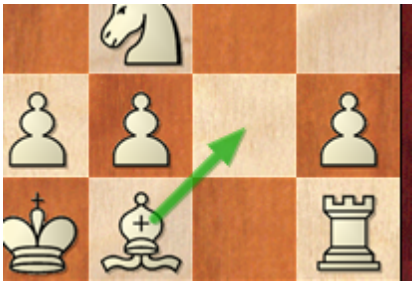

The quality of the hint asssistance depends on the search depth, which you can adjust in the "Game" options.

3.1.5 Rookie

In the playing mode "*Easy game*" you will find in the window "Easy Game Info" the animated representation of Rookie, the friendly rook.

Just as in the case of most human players, you can already tell from its expression how things are going in the game of whether some specific tactical twist is available.

Unlike many human players Rookie does not indulge in deceptive tricks and shows openly and honestly how it evaluates the position!

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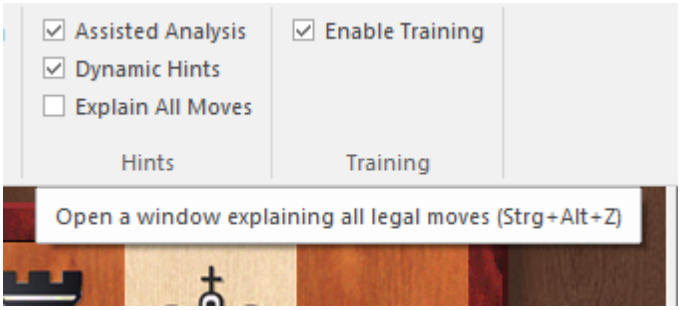
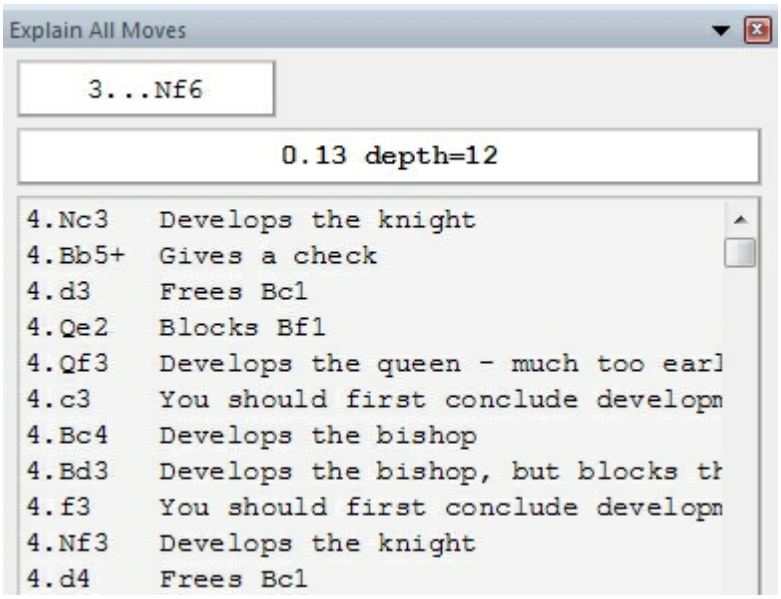
3.1.6 Explain all moves

Training Explain all moves.



This will opens a new window with a list of all legal moves in the current position, sorted according to their value. The best move is listed first. The program will periodically recompile the list, searching one move deeper in the process.



For each move there is a short characterisation. If you click any of the moves, the principal variation that would follow displays at the top of the screen, along with the resulting evaluation. Coloured arrows and squares on the board (to illustrate the point) may appear.

You can double-click a move to execute it on the board.

Click *Explain all moves* again to get rid of the display – or right-click and "close" the window.

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3.1.7 Measurements during a game

Using the menu *View - Measurements* you can open a window with two displays for the *games Hotness* and the *Mate-O-Meter*.

What is the meaning of these two measuring devices?

This example is from the early part of a game. The „hotness" display shows how complicated and tactically „hot" the position is. The higher the value, the more complex the tactical and positional aspects of the position are.

The „Mate-O-Meter" shows the possibility of checkmate. In this example you can see that there is no mate threat.

The next example is from later in the game

This example shows that the position is very hot, i.e. there are very complex tactical and strategical problems in the position. The Matt-O-Meter also shows that the danger of checkmate is much higher. The last example is what the Matt-O-Meter displays in a position with mate in three moves.

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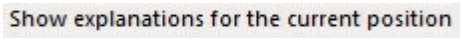
The „measurements" display is very useful especially for beginners. One look at the measurement clocks will show a beginner or a viewer who has just arrived the status of the game.

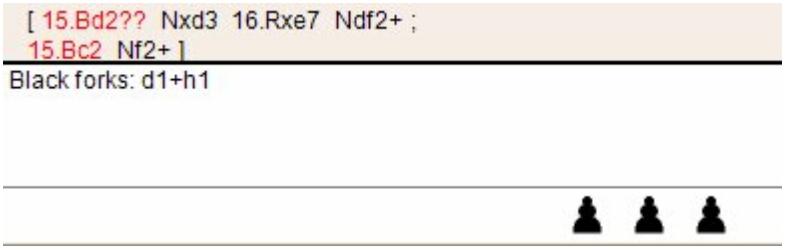
3.1.8 Position tutor

Right click notation window "Show position tutor"

This starts a special chess engine which has a lot of chess knowledge.



It generates a brief strategic description, in plain text, of the current board position. The information is displayed at the bottom of the notation window.



3.1.9 Engine evaluations beside the chess board

When you are playing through and analysing a game the chess program offers useful help and guidance on the evaluation of the current position on the board. You will find the display right next to the graphic chess board.

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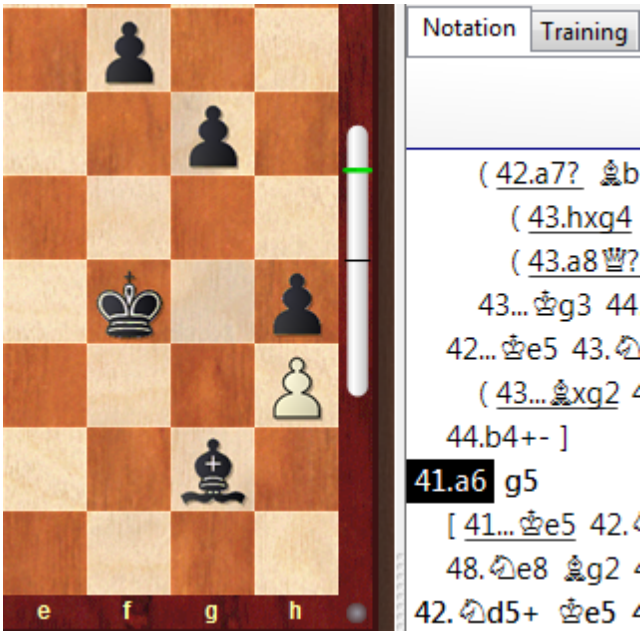
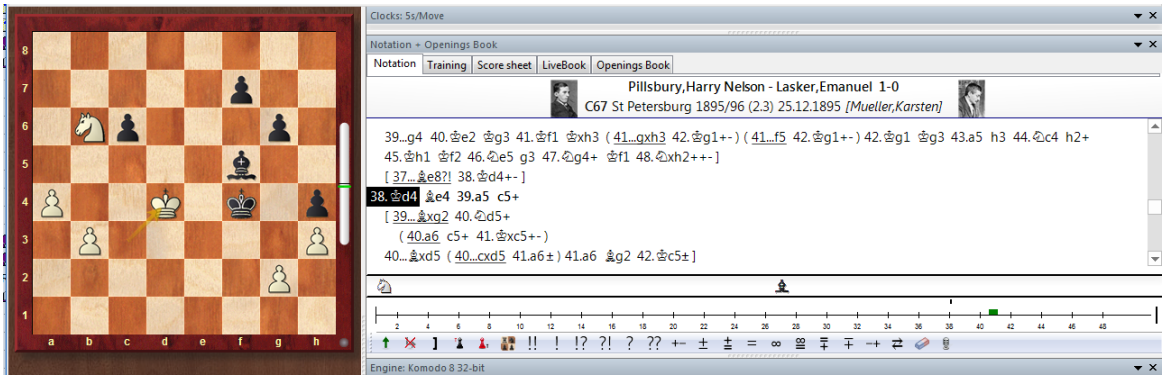


The user can recognise at a glance whether one side has an advantageous position or whether the position is level. As an illustration let us take a look at this feature of the chess program with a practical example in *Infinite analysis*.



The position is evaluated as level by the chess program and the user can recognise this evaluation immediately from the little button (with a green marker) to the right-hand side of the board. If the green marker is in the middle this means equality.

After Black's next move in the game the evaluation by the chess engine changes drastically and the user can spot this at first glance thanks to the changed position of the green marker.

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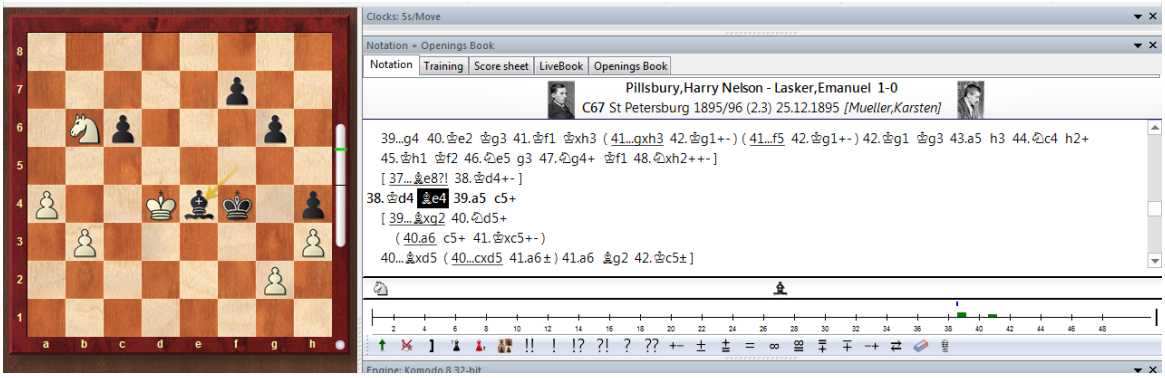


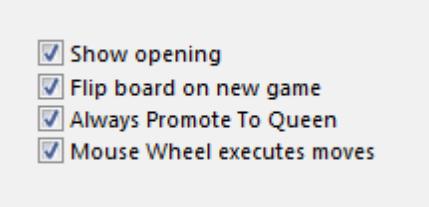
If the green marker is found towards the top of the board, it indicates an advantage for White. If it is the other way around that represents an evaluation advantageous for Black.

The display is also supported by the access client for the chess server!

3.1.10 Mouse

Playing through games

The mouse can be used to play quickly through a game you have loaded. In order for this to work, the option must be selected among the list of options.



The setting "*Mouse Wheel executes moves*" does this.

Assisted Analysis

In Assisted Analysis the mouse wheel also has important functions.

Load a game and test this in a middlegame position.

This example is taken from the famous game **Paulsen – Morphy 1857**.

Morphy sacrificed the queen with 17 ...Qxf3.

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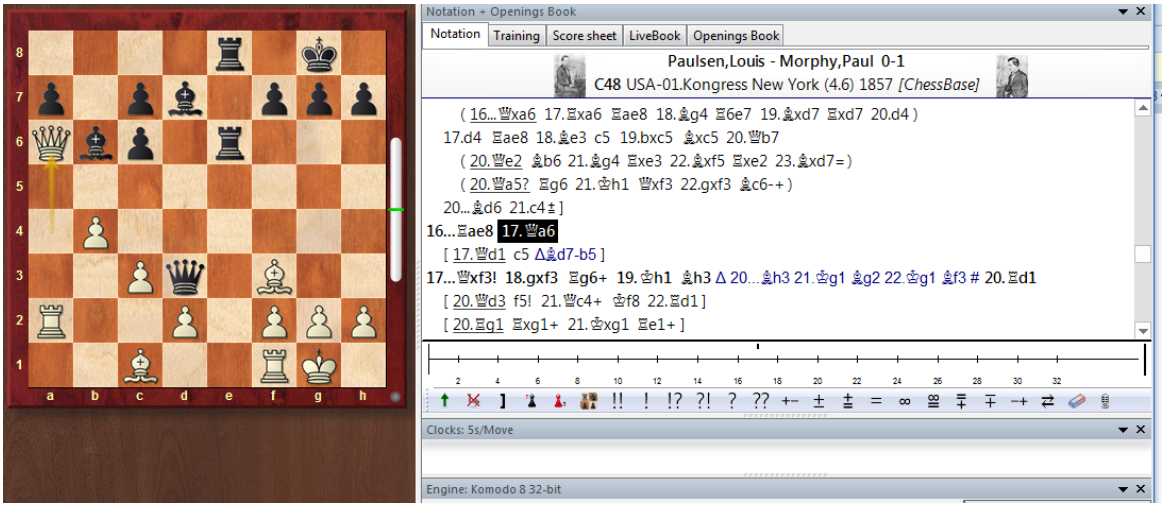
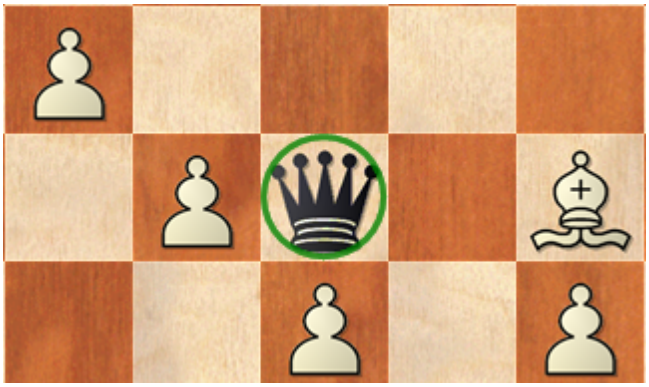


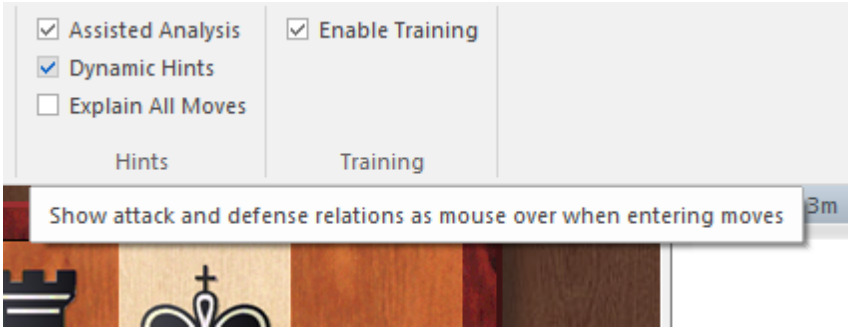
If in this position you roll the mouse wheel back and forward over the last piece to move, *Assisted Analysis* marks with a decent green circle the best piece to move in that situation.



Like that the mouse wheel gives a decent hint as to the best possible continuations when you are playing through games.

3.1.11 Dynamic Hints

When moves are made the balance of power on the board can be shown with arrows. This can be selected by the menu *Training - Dynamic Hints*.



© ChessBase 2019

Possibilites for attack and defence manoeuvers are shown for every square when you move the mouse cursor over it. This "mouseover" effect gives assistance in understanding the balance of power on the board.

This information is shown in two colours. Green arrows are defensive manoeuvers, red arrows are attacks.

There are further differences shown by the type of line. A solid line shows a direct attack or defence. Dotted lines show a possible attack or defence that depends on the next move made.

If a red line is drawn thicker it is a move that will win material.

This means that the dynamic tips can be an effective help during a move by showing what consequences there will be on the board.

3.1.12 Opening Classification

The program is now able to classify openings more precisely. The feature *Classify Opening* now makes it possible for the user to state to what opening system a particular board position belongs.

Note: This function is only useful in the opening phase of a game. In the middle and endgame it is no longer possible to make a classification.

This function is in the menu *Analysis* *Classify Opening* .

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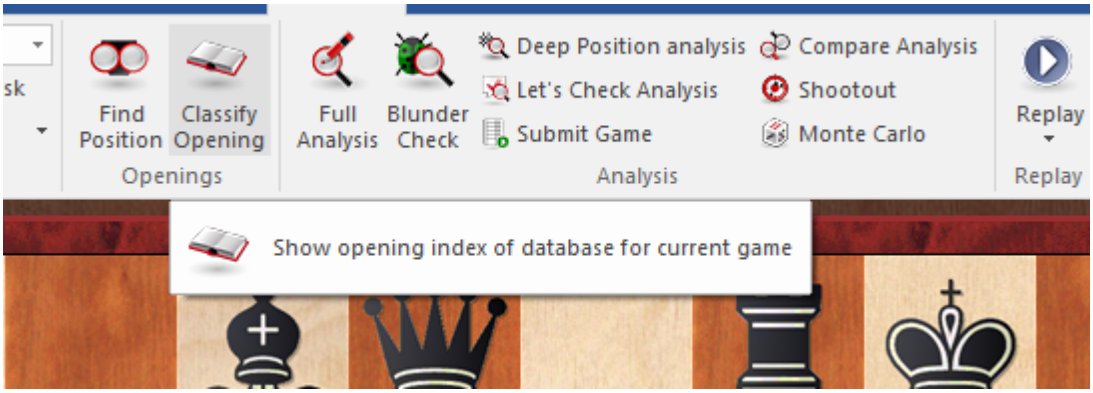
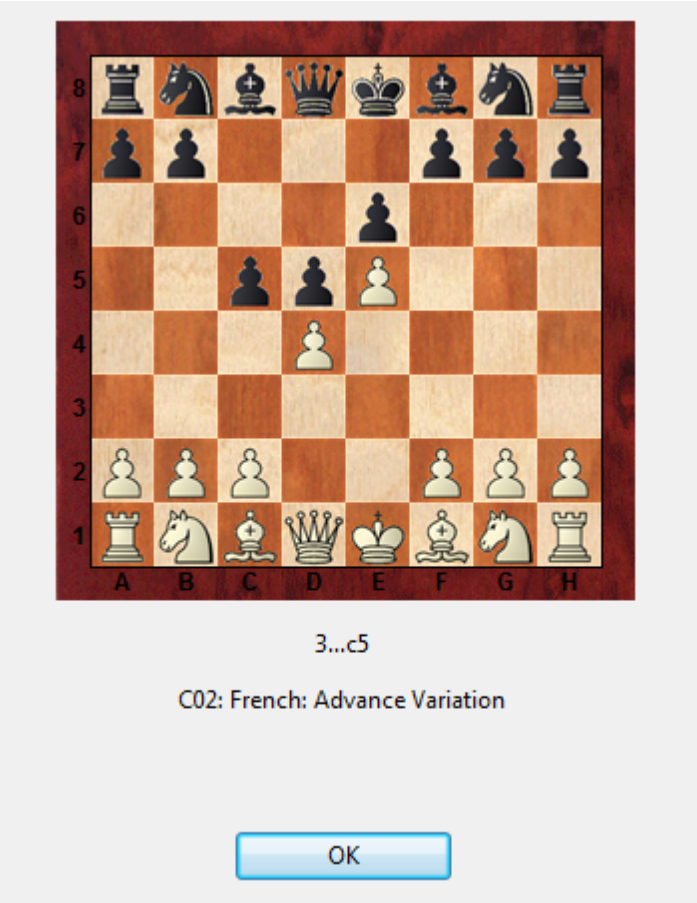


Select this function during a game's opening. The following example shows the result:



The program examines the board and compares it with classification positions. In this example it was possible to make an exact correllation with an opening, and the name is presented in the information box.

In the Database window click the tab ***Openings*** to see the Opening classification of your Database.

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3.1.13 Assisted Analysis

The function "*Assisted Analysis*", implemented for the first time in **ChessBase 14**, offers the user, either when entering moves or when playing through a game, valuable hints about the tactical consequences of a possible move. It does so by means of coloured highlights on the chess board.

See also ....

The basic idea behind this feature is that present day chess engines on high-performing hardware come up with the best move in mere milliseconds. Unlike in classical engine analysis (Infinite analysis), in which the evaluation of the move is displayed in the engine window, the user does get hints about the quality of a specific continuation, but in the final resort he has to investigate for himself the reason for the evaluation.

This way of working is significantly more stimulating for the development one's own tactical abilities and that circumstance makes this function so valuable for chess training.

Assisted Analysis can be activated both in analysis mode and in the playing mode Easy Game.

Let us take a look at the function by means of some examples taken from games.

Lasker – Bauer - Amsterdam 1889

© ChessBase 2019

After some very passive play by Black in the opening the white pieces are poised for an attack. Lasker now begins the decisive attack. How might that attack be pursued?

A click on the white bishop on d3 beings up with coloured highlights a display of the possible squares that selected piece could go.

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The coloured highlights refer to the evaluations made by the chess engine which is calculating in the background. In this case interpretation is easy. Most squares to which the Bd3 could go to are highlighted in red, red meaning a very bad move. In this example, specifically material is lost without compensation. Target squares highlighted in green, on the other hand, are promising and suggest a good move. Here Assisted Analysis is making a case for the bishop sacrifice on h7, exactly the continuation selected by Lasker in the game.

So, specifically which coloured highlights and hints to the user are being offered by the function?

- **Green** – a very good move.
- **Yellowish green** – playable, but not the best move.
- **Yellow** – this move is tactically playable, but by far not the best move.
- **Orange** – still tactically playable, but not a particularly good move.
- **Red** – a very bad move!

A further example:

Bogoljubov – Alekhine - Hastings 1922

© ChessBase 2019

White's position looks terrible: he is a pawn down and his pieces have hardly any space to breathe. When you click on the **Nb4** Assisted Analysis shows you the evaluations for its possible moves according to the table described above.

The move played by Alekhine in the game, to d3, is the one considered by the program

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to be the best continuation and highlighted in green.

In many positions you would like to know what specifically happens if a piece is moved to a square which the analysis function has highlighted as critical (red). Here too Assisted Analysis is of help with a cute piece of support for the user. It is possible to have the program display the reply immediately!

In our example the d5-square is highlighted as being critical. That is clear, since the piece can be taken at once.

But in many highly tactical positions things are not always so clear-cut. Let us take a look at how the reply to a move can be displayed by the analysis function.

In the example, move the piece to the square highlighted in red and press the right-hand button of the mouse without letting go of the piece.

The program then immediately displays the absolutely best counter-move!

Let us consider as our final example the following position:

Karjakin – Carlsen New York 2016

This position comes from the tiebreak between GM Carlsen (White) and GM Karjakin (Black) and finally decided the WCh match. It illustrates Assisted Analysis very well.

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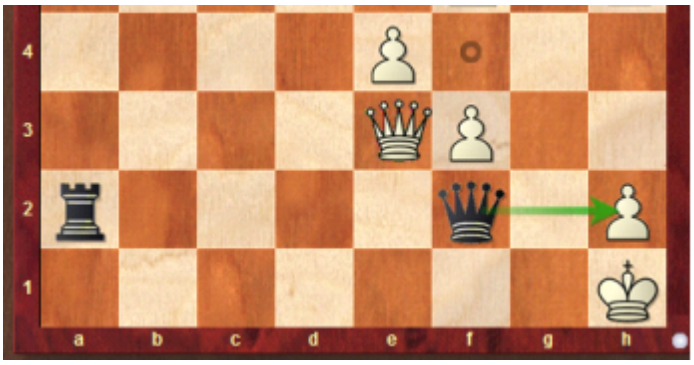
A click on the white queen here shows the squares to which it can go highlighted with the various colours. In the position Assisted Analysis highlights only one square in dark green, whereas the remaining moves are displayed with a deep reddish brown colour. The dark green highlight indicates a forced mate; the reddish brown highlighting of the remaining squares shows that if he makes one of these moves White will be mated. Here too, using the right-hand mouse button to see Black's reply will serve to convince of this immediately.



So Assisted Analysis brings you the following advantages:

- you can recognise at first glance how to evaluate the quality of a move.

- when inputting moves you can concentrate completely on the chess board without constantly paying attention to the display provided in the evaluation pane by an engine which is running.

- the function stimulates the calculation of variations and thereby advances/ trains the user's chess ability.

Tip: Assisted Analysis is not compatible with one-click input. Whenever the function is active, frequently the most likely move is not played. The reason for that consists of the fact that Assisted Analysis leads to the user clicking on several pieces one after the other to check the quality of different moves.

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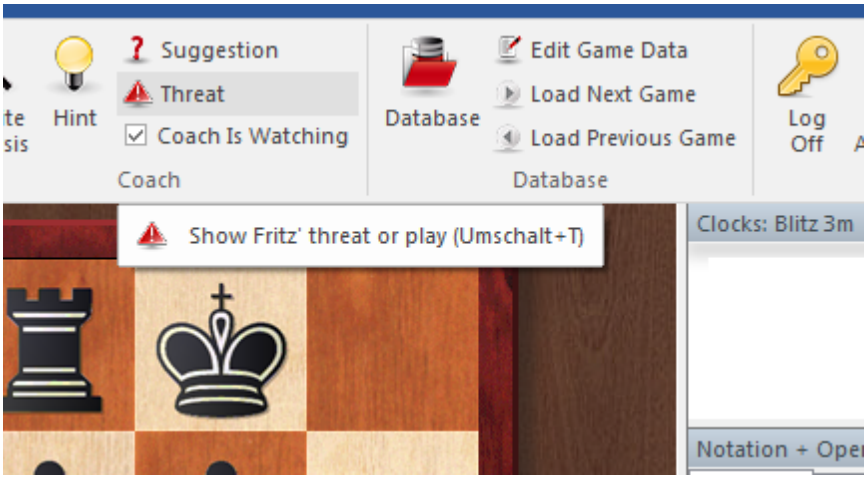
3.1.14 Threat

Home Threat (or Shift-T)

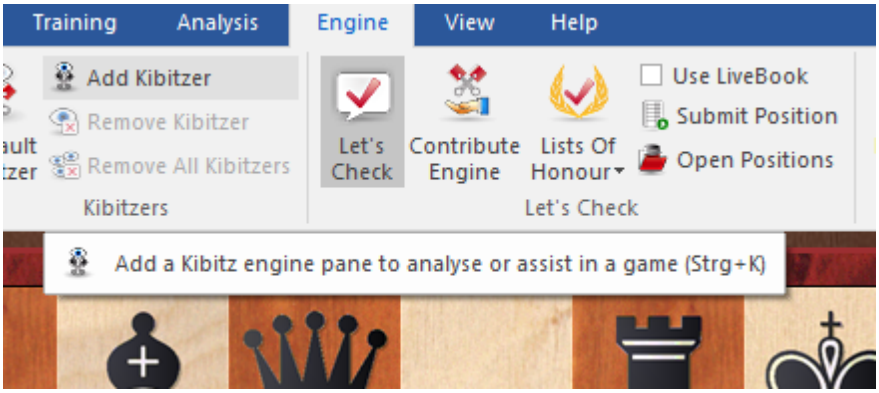


Displays the immediate threat, (i.e., what the opponent could do if no defensive move is made). The threat is displayed as a red arrow on the board.

Please note: a kibitzer can be set to display the threat in every position that occurs on the board. Right-click the engine window of the kibitzer and select "Threat".

3.1.15 The Kibitzer

Menu Engine Add Kibitzer (Ctrl-K)



A "Kibitzer" is a person who watches a game in progress without making any moves himself. A kibitzer is also notorious for giving advice and knowing everything better.

You can add a kibitzer by selecting an engine in the select box that appears.

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A new engine window appears in which it can work parallel to the one already loaded. You can use one or more kibitzers (up to six) to help you in your game against the primary engine, or you can use them for a second opinion on a position you are analysing. Remember that they will be sharing the processor power, so the quality of analysis sinks with every added kibitzer.

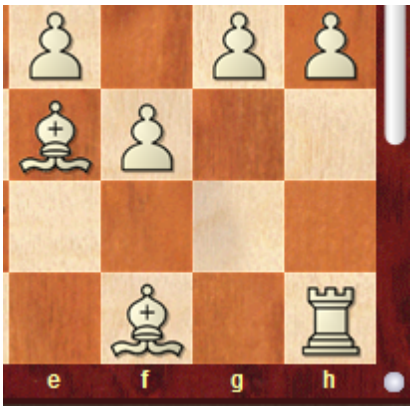
Click *Remove kibitzer* or *Remove all kibitzers* to close the additional engine. You can also right-click a kibitzer and "Close" it.

Kibitzer cannot be combined with the "Explain all moves" window.

3.1.16 Move indicator

At the bottom right hand side of the chess board the program offers a decent little highlight.

It displays which side it is to move.



White's move is highlighted with a light colour. For Black the program makes use of a darker shade.

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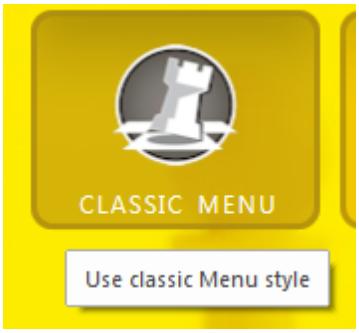
3.2 Levels of skill

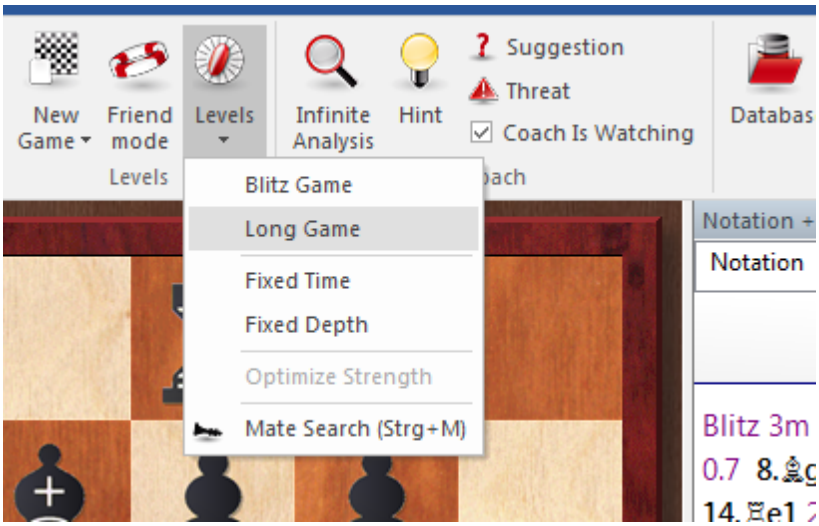
3.2.1 Levels of skill



Full-strength playing levels

- Blitz games
- Long games

In both these levels it is advisable to use the function "optimise playing strength" if you want to get the most out of the program.



You can also use *Training* *Rated game* and play serious tournament games in which the program will give you an objective assessment of your playing strength.

Reduced playing strength level

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–

- Friend mode

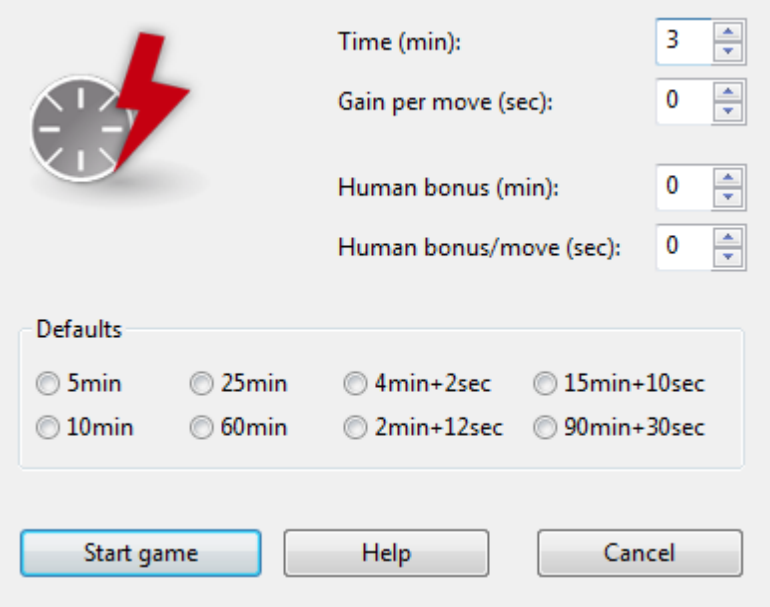
Apart from the above, the program can be set to play games with a fixed time limit or search depth per move. Click Game – Levels to reach these settings.
Chess variants

- Givaway chess
- Chess 960

Apart from the above, the program can be set to play games with a fixed time limit or search depth per move. Click *Game Levels* to reach these settings.

3.2.2 Blitz games

In blitz chess all the moves of the game must be played within a certain time, which is usually given in minutes.



In addition, you can give a bonus (in seconds) for each move. This is added to the time allocation as soon as the move is executed. It prevents one side from winning a game purely on the basis of the other side running out of time.

You can also give the human opponent a time advantage – for the entire game, or for each move. This can compensate for move entry time, or be a handicap which allows you to think longer than the computer.

Note: You can set the time controls by right-clicking the chess clocks and selecting either "*Blitz*" or "*Long game*".

Note: The program uses different scoring modes in the disciplines Bullet, Blitz and long games!

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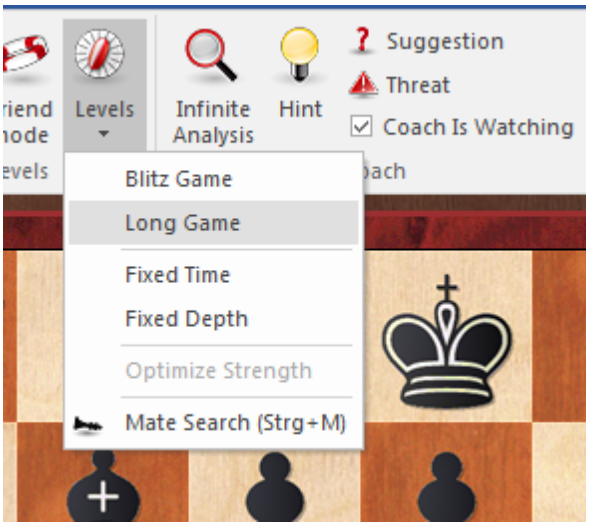
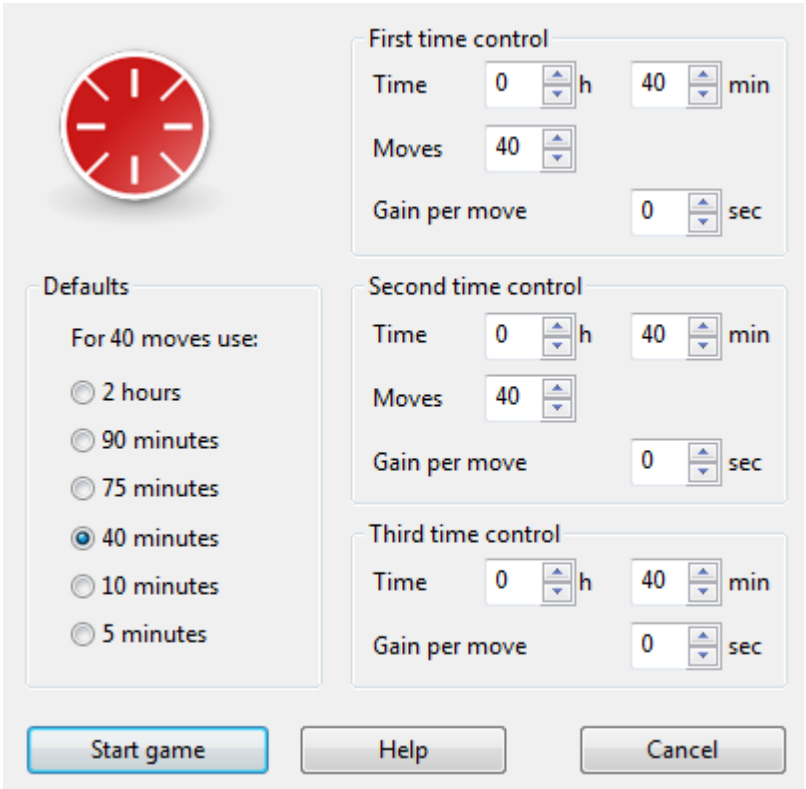
3.2.3 Long (tournament) games

Home ***Long game***



In tournament chess you are required to execute a certain number of moves in a given time. Usually the game has a number of phases, e.g., two hours for the first 40 moves, one hour for the next 20, and 30 minutes for the rest of the game (a very common tournament control).



You can use *Long game* to adjust the time allocations or number of moves per

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phase. You can also select one of the common levels predefined in the dialog box ("Defaults").

Note: The program uses different scoring modes in the disciplines Bullet, Blitz and long games!

If you set the time of the second and third time controls to zero, they are ignored as the first time control is always used.
Overstepping each of these time controls means you lose the game. If you use less than the specified time in any phase, it is added to the next phase.

3.2.4 Easy Game

In the early days of computer chess it was an exciting experience for a human player to play against a computer. The programs were very strong tactically, but could be defeated by experienced club players. In play against modern chess engines this is something which has consistently been changing and even for top players it is hard to defeat modern engines.

In earlier versions of the program there were different handicap, friend and sparring settings in order to provide the user with an opponent capable of being beaten by a human being.

From the starting screen of Fritz 16 you can set in motion all levels of play in which the engine's playing strength is reduced under " *Easy Game* "

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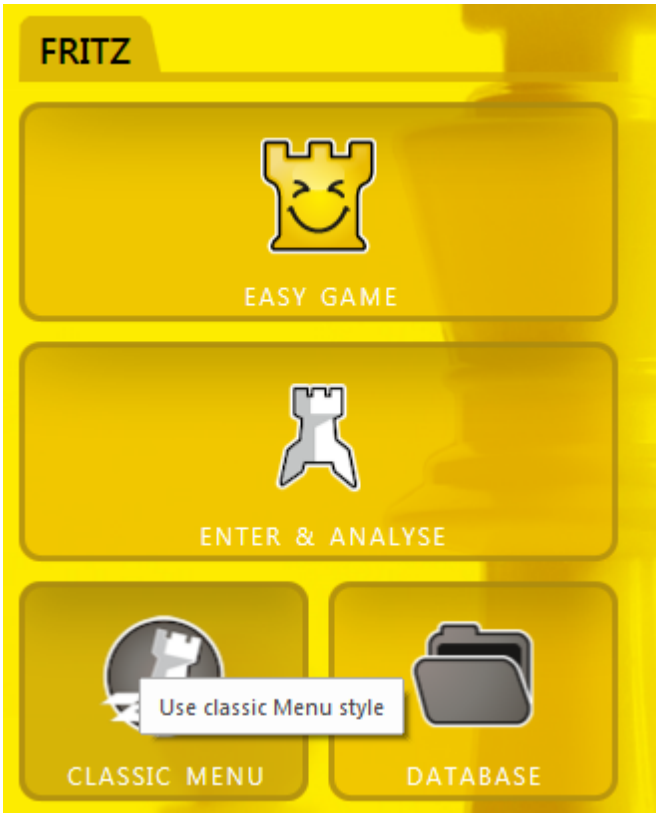
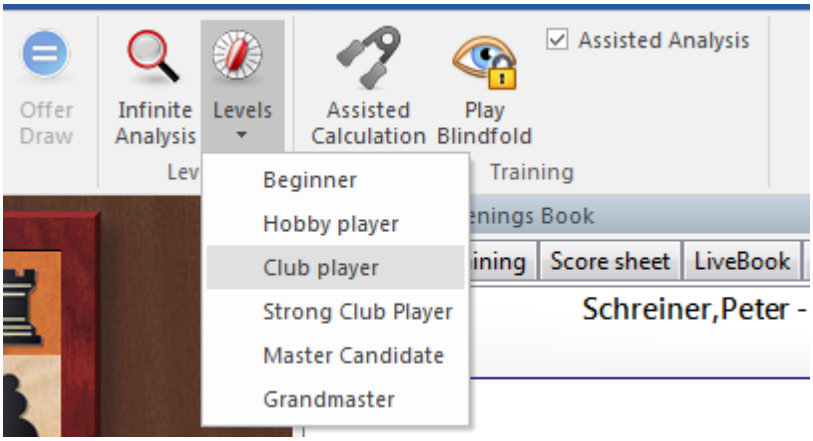


On doing so, you launch the customised screen for this type of play. Experienced users will spot at first glance that what are offered above all are functions which are linked to this playing mode.

As a first step it is necessary to define the level at which one would like to play games against the program. This can be done under the heading ***Levels*** .



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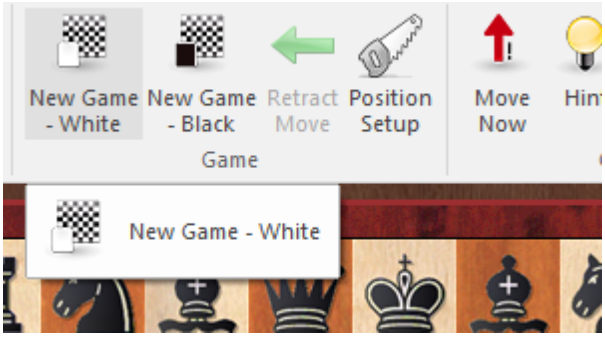
For most users the setting "*Club player*" should be suitable. In your first games against the computer it will quickly become evident what the correct setting should be. After the appropriate level of play has been chosen, you can start a game directly by clicking on "*New* Game *White*" or "*New* Game *Black*".



Now you can input your moves totally without time pressure (no time limit). The program adapts within the framework of the chosen level of play and on occasion plays weaker moves.

In the window "*Easy Game Info*" you will find a constantly updated evaluation of the position and your rating.

During the game the program offers its human opponent numerous little opportunities for help. The functions "Hint", j'adoube, etc. are very useful.
In addition there is the possibility of continuing the game without seeing the pieces. To achieve this you simply click on the ribbon on "Play blindfold".

Something totally new in Fritz 16 is the support for training by means of "*Assisted Analysis*" and calculation training.

In our opinion the playing mode "***Easy Game***" offers the advantage that, for example, when the level has been chosen to be that of "Club player" the program generally speaking plays strong and natural moves, but every so often blends in tactically weaker moves.

If in that playing mode you are aiming for sharp types of position of a tactical

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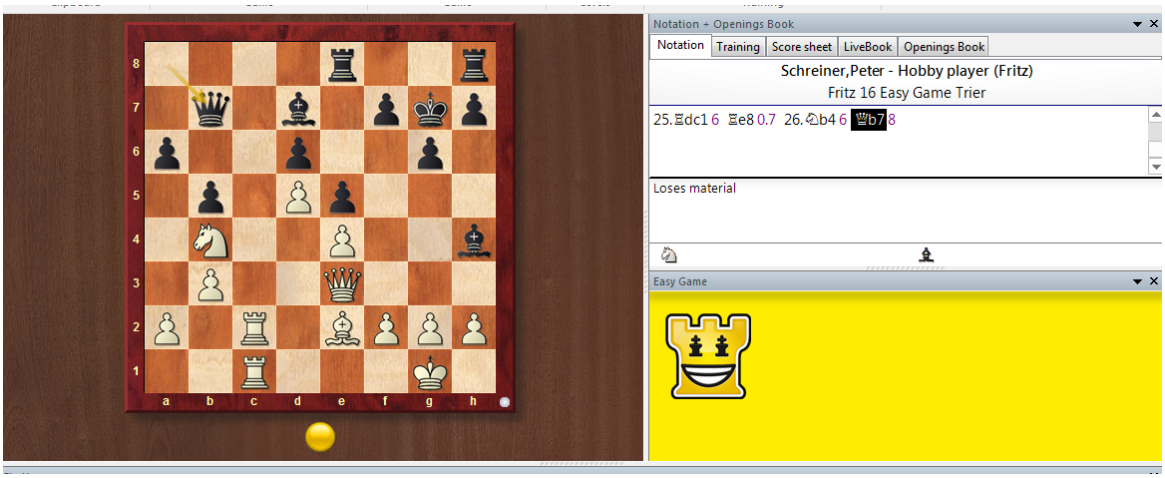
character, the program will more and more frequently present you with the opportunity to exploit these to your advantage. As soon as a tactical opportunity is there for the human player to seize, the program announces this to the user and displays a hint to this effect in the information window.



During the course of a game, there is at all points the option to change the playing level. After a few moves, the program will adjust the estimated rating in the information window.

Positions offering help

In addition to all that, the program also offers a little help at some positions during the game. Via "*Hint*" it gives short tips about the best continuation.

But there is an even more elegant method. Simply by rolling your finger over the mouse wheel you can be shown the piece which can make the best move in the actual position on the board. The relevant piece is highlighted on the board by being framed in green.

In combination with Assisted Analysis you can also get a little help, but this time it calls for independent thinking on the part of the user.
You will find a little bar to the right of the board.

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With the easier levels, e.g. Hobby player, the opportunities which are offered occur more often and attention is drawn to them by a blinking symbol below the chess board and this gives a clear hint that in the position there is a move you can make which will be to your advantage.

What is particularly nice is the display of the facial expression of the piece in the "Easy Game Info" window. Just like in a game with a human opponent, the user can spot how the program evaluates the position on the board from the facial expression.

3.2.5 Friend mode

Training Friend mode

The program offers a completely overhauled friend game mode. Modern chess programs are too strong for almost all chess players. You can use the friend game mode to adapt the playing strength so that you have a genuine chance to win without the program making primitive mistakes. Based on your initial settings and the games you have played the program attempts to adjust its playing strength to the same level as the player.

A friend game can now be started directly from the start menu with the ribbon "Friend Mode". This means that you no longer have to start the game via the Training menu.

As an alternative, you can still use the Training menu if you wish.

or

Menu Home - Friend Mode

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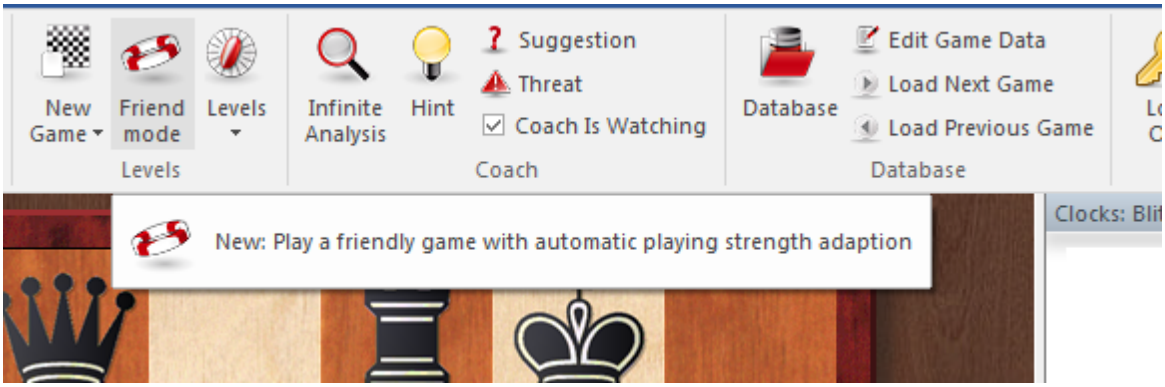
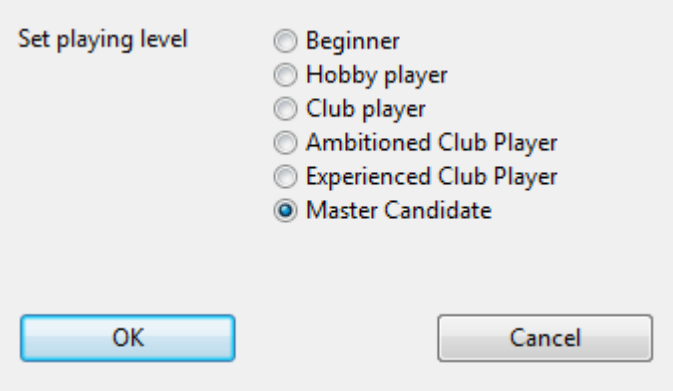


Note: A normal game is still started with the ribbon "*New Game*". Please note that when the program starts it is always in analysis mode as default. This is because practice shows that most users use the program to analyse their own games. The program has been changed to accommodate this usage. For this reason you now have to select a normal playing level before you can play a game against the program.

You have to select a default level when you first start friend mode. This is used for future games.



"*Set playing level*" determines the strength level that the program should play. The program does not necessarily play badly on the lower levels. If you give the program tactical opportunities, leave pieces undefended or allow checkmate the program will take advantage. This will help you to learn from your mistakes. Don't lose patience if you lose all the first games. The program will adjust itself to your playing strength as time passes.

The program will attempt to play as strong as you do. It remembers the results of previous friend games and adjusts its strength accordingly. The program attempts to adjust its playing strength while playing.

Every new friend game is with a new colour, so every second game you play will be with Black.

If you have already played games against the program in friend mode you will see a diagram every time you start.

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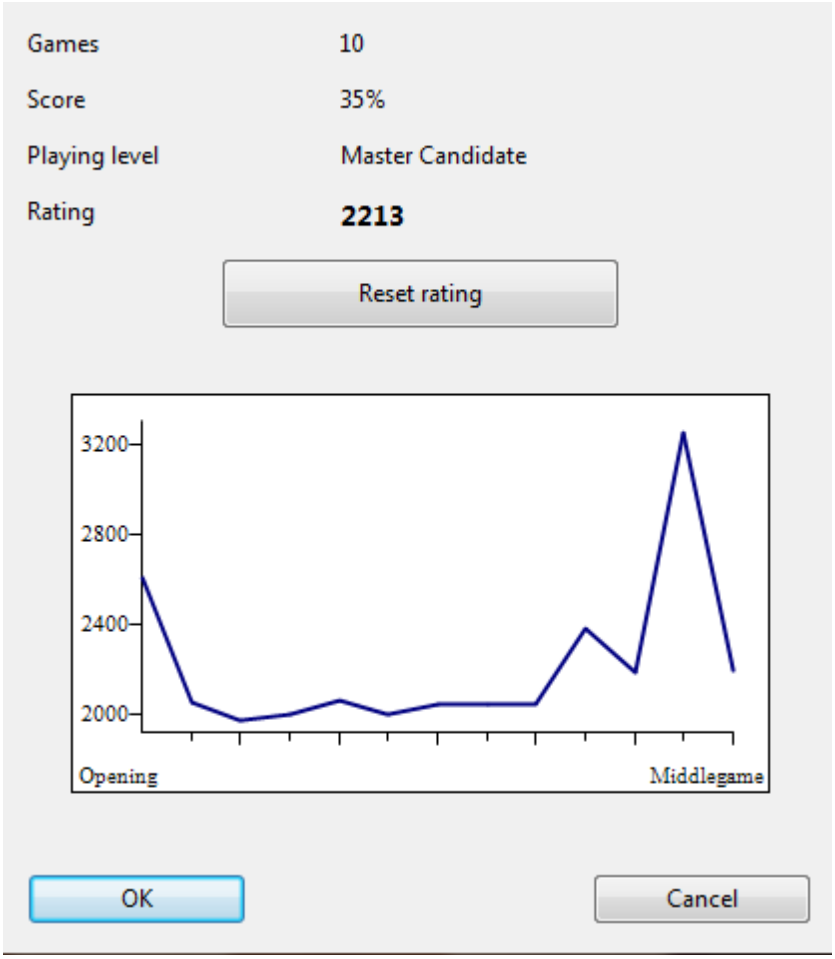

This shows you the number of games you have played, your results as a percentage, the level you have reached and your Elo rating. The button "*Reset Rating*" deletes the stored results and begins a new evaluation of your games.

The diagram presents an overview of the evaluation in the different phases of the game. This goes from the opening to the endgame. A low evaluation in the opening phase shows that the user needs to invest more time in openings training.

During friend games the program offers the user useful pieces of advice. The Coach is not active, but if you miss a tactical opportunity the program inserts the missed chance into the game notation and marks it as a training question.

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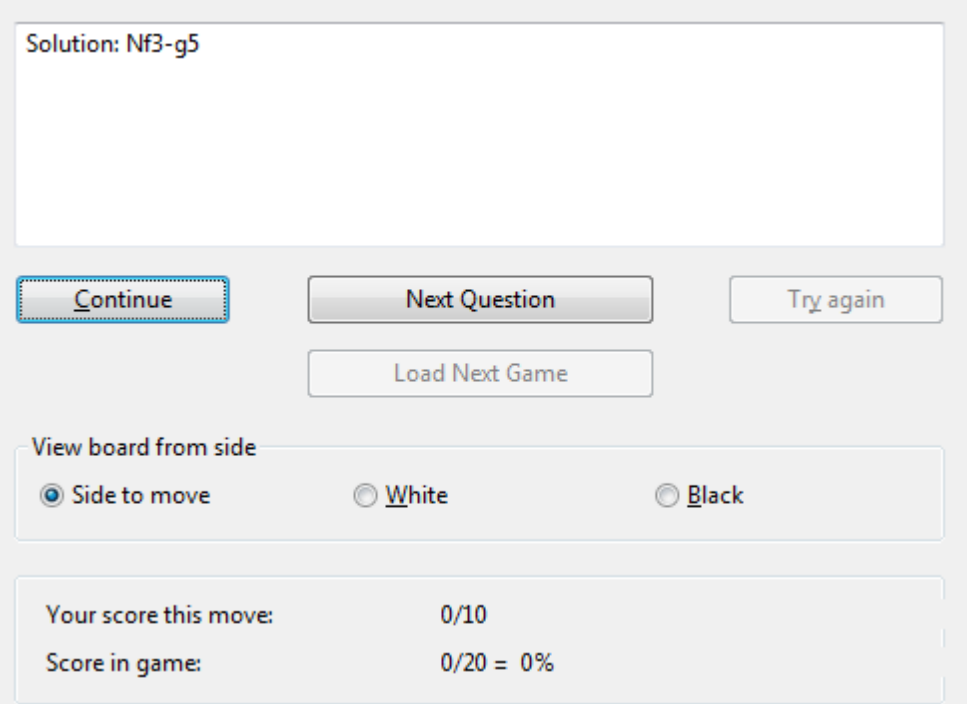
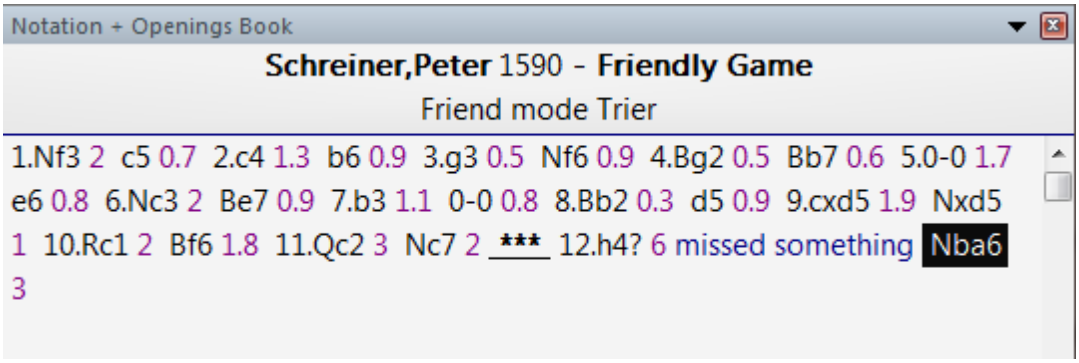


Note: All games played in friend mode are stored in the database Autosave in the user's folder.

If you later load a game from the Autosave database the position is displayed where the user missed an opportunity and a tactical question is asked.

As an alternative you can use an analysis mode to examine the game and see what tactical opportunity you missed.



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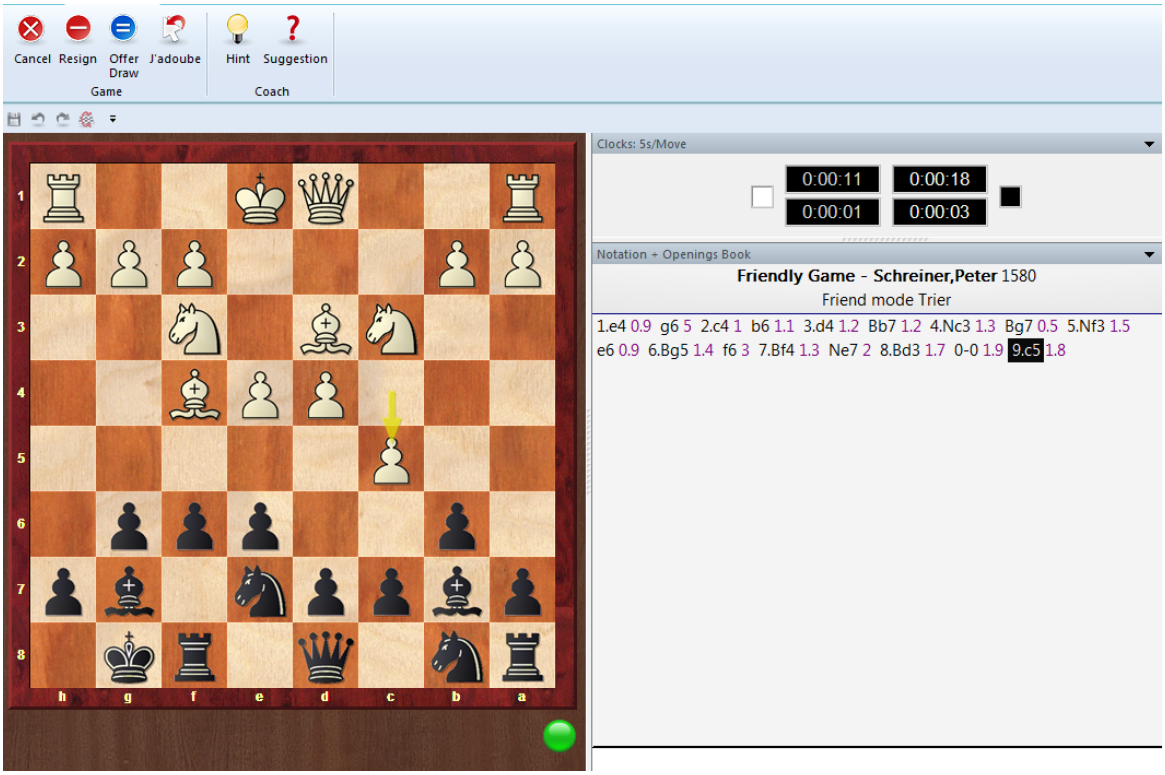
3.2.6 Playing a Friend Game



The chess clocks show how much thinking time you have used, but they have no other purpose. You can think for as long as you like.

Enter your moves on the graphic chess board.

During the game the following functions are available by using the function buttons on the toolbar.

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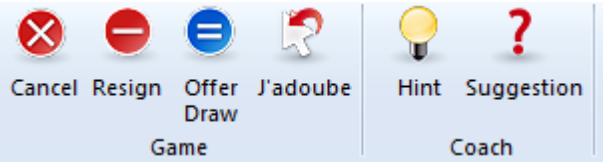

Abort - This ends the current game immediately.

Resign - This gives up the game.

Offer Draw - You can offer the program a draw.

J`adoube - This takes back the last played move.

Hint - The program makes a suggestion for your next move, also showing threats and plans, if you wish.

Suggestion - This displays an arrow for a suggestion.

Beneath the chess board there is a small warning light. When this light is green the game is running peacefully.

If the light blinks it means that in this position the player has a tactical opportunity.

This is in contrast to the serious rated games, in which no help is allowed. This is a useful tip. If you make a move which isn't what the program expected, the program inserts it into the game notation, and when you replay the game the critical position is used as a training question.

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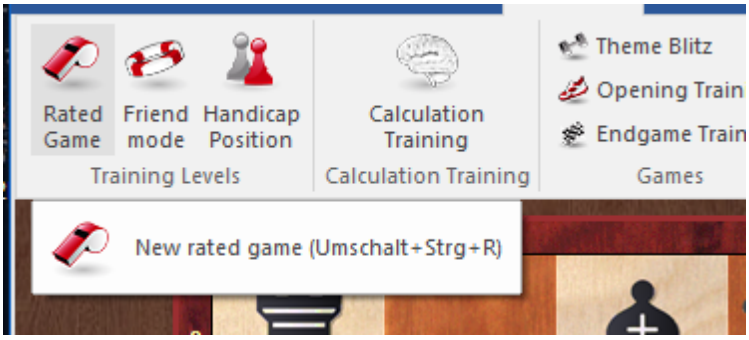
3.2.7 Rated games

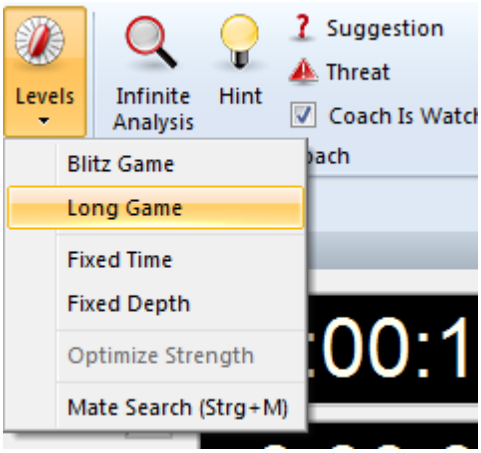
Training Rated game

Rated games are the most exciting games, and also the most honest way to challenge a computer program. You are playing against the program under genuine tournament conditions. Your results are stored, and you are given a rating in the form of an Elo number.

The rated game mode is started by the Menu *Training Rated game*.



First you must select the type of time controls that you want, either Bullet, Blitz or long game. This is very important because the program will give you separate ratings for each of the types of time controls.



The following games in the session are started with the time controls you have selected. If you want to play with other time controls you must change the settings with the ribbon *Home Levels*.

This is the start dialog for the rated game mode:

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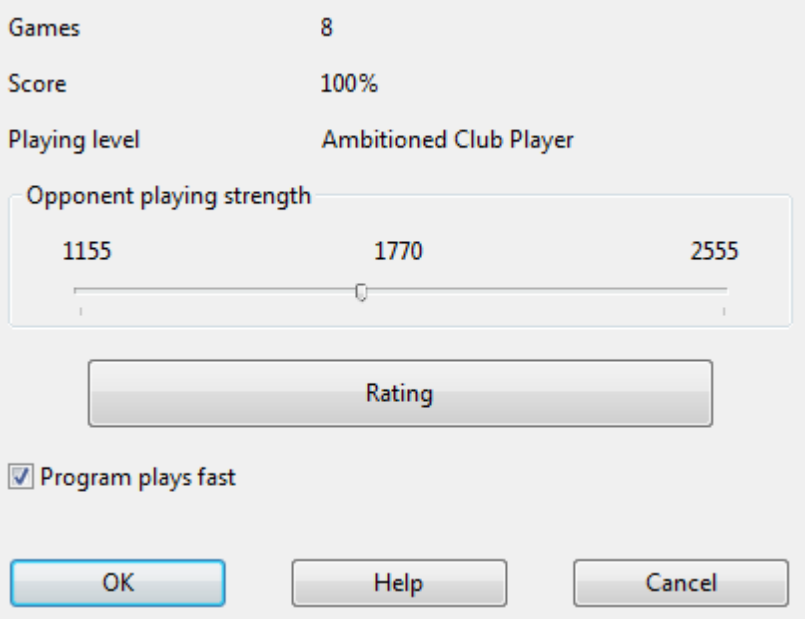

Use the sliding bar to select the playing strength of the program for the rated games. If you have already played rated games against the computer you will see statistical information about your results in the "*Rating*" dialog.

"*Program plays fast*": If this option is selected the program makes its moves either immediately or very fast. This can have a demoralising effect on human players, especially in Blitz mode. Turning off this option makes the program seem "more human".

What sets the rated mode apart is that it's not possible to take moves back, and there are no suggestions or hints made by the program. This makes the game identical in style to strict tournament games. The features available to the user are more restricted than in the more tolerant friend mode.

You can resign, offer a draw, or if the computer hasn't yet moved you can correct a move you made by accident.

The program rates your game play for the game types *Bullet*, Blitz and long games. You can see these ratings by clicking the button "*Rating*" in the start dialog.

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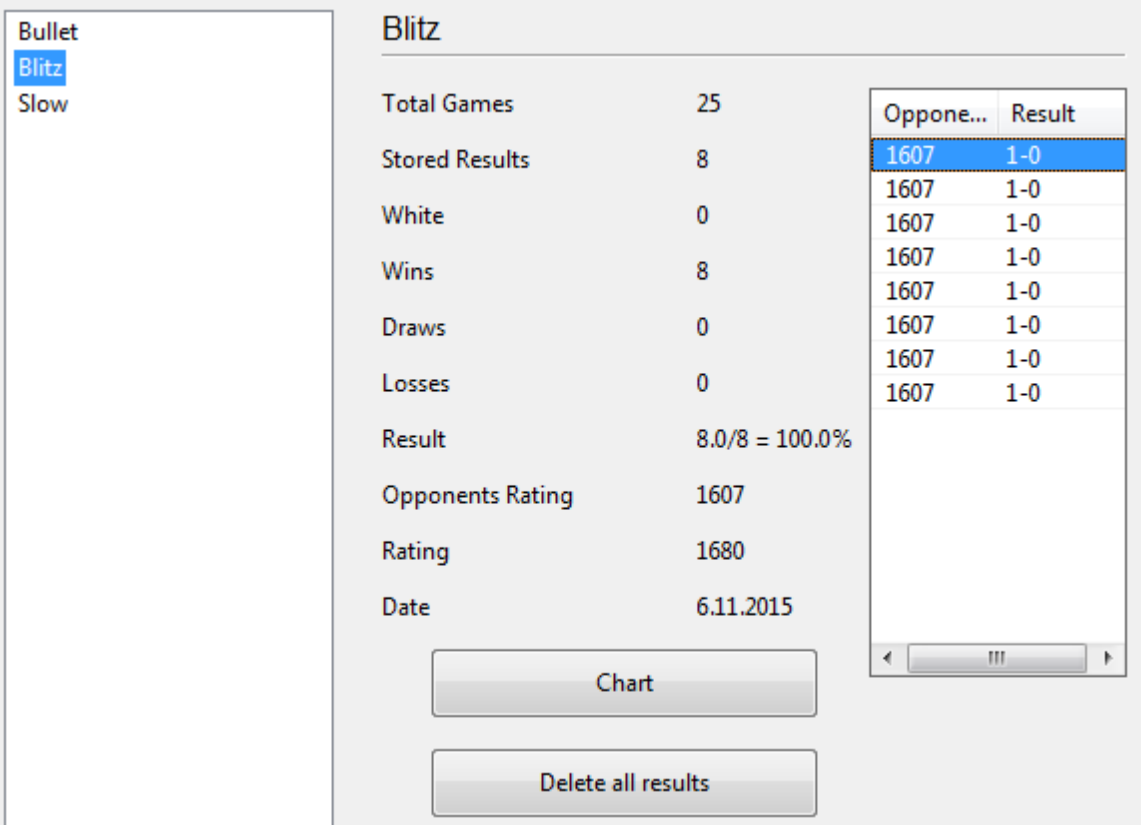

This dialog displays the ratings for the different types of games. The button "*Chart*" shows a graph of the development of your rating over time.

"*Delete all results*" starts a complete Evaulation.

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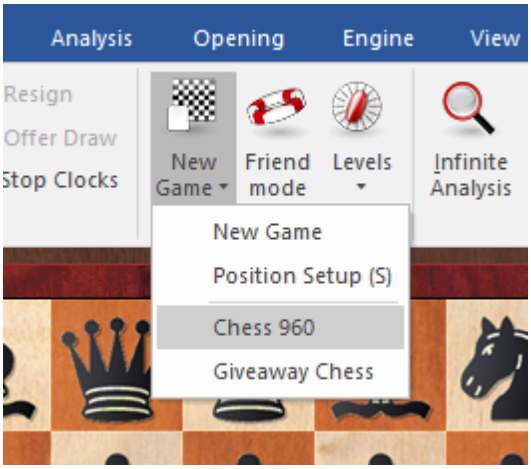
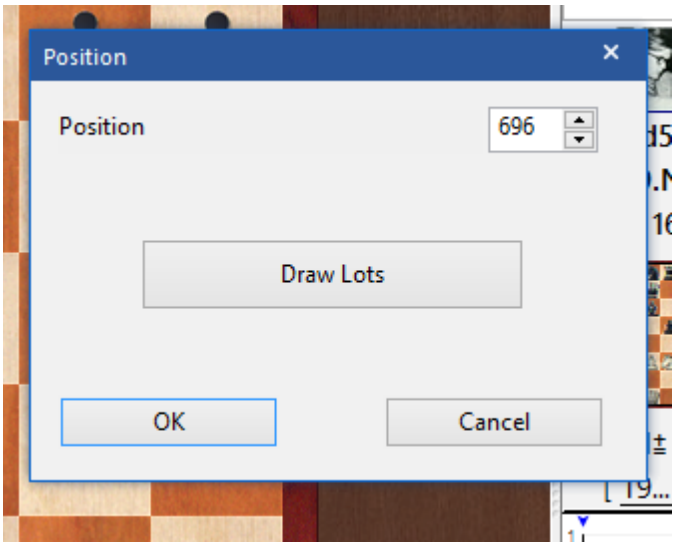
3.2.8 Chess 960

Fritz and the other recent chess programs support this mode.

From Classic Menu you must select "*Home New Game 960*".



In the followup dialog you then pick a number for one of the predefined Fischer-Random positions.



You can then play or also analyse a game. Alternatively you can also access and load from a database games which have been played in this mode. That works normally with "*File - Open Database*".

Games you have played against the program are saved in the file Autosave-960.cbh in the users folder.

Saved Chess 960 games in a database are given with the number of the predefined position with which they were played.

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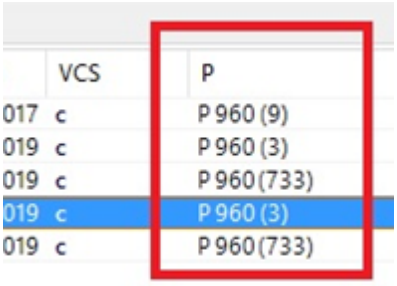
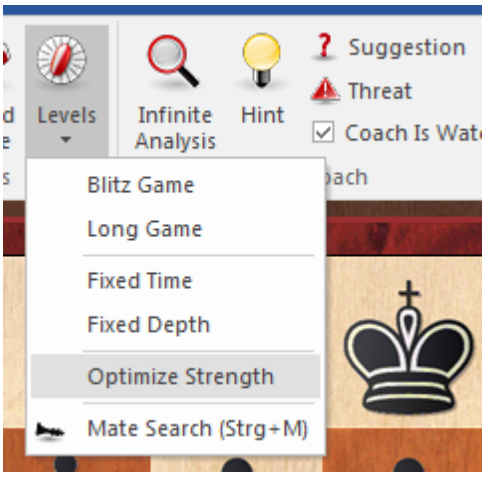


3.2.9 Optimise playing strength

Home - Levels Optimise strength



This function is only available in Blitz or long games with time controls. It configures the program for maximum playing strength.

This is done as follows:

- The Multimedia functions are switched off.
- The hash table size is optimised.
- The opening book options are configured for serious play.

3.3 The openings book

3.3.1 The openings book

In the initial phase of a game, the program plays out of an *openings book* . This can consist of millions of openings positions, and for each of these, the program has full information on which moves were played, how often and with what results. The program stores its own experience with openings variations it has played. It learns

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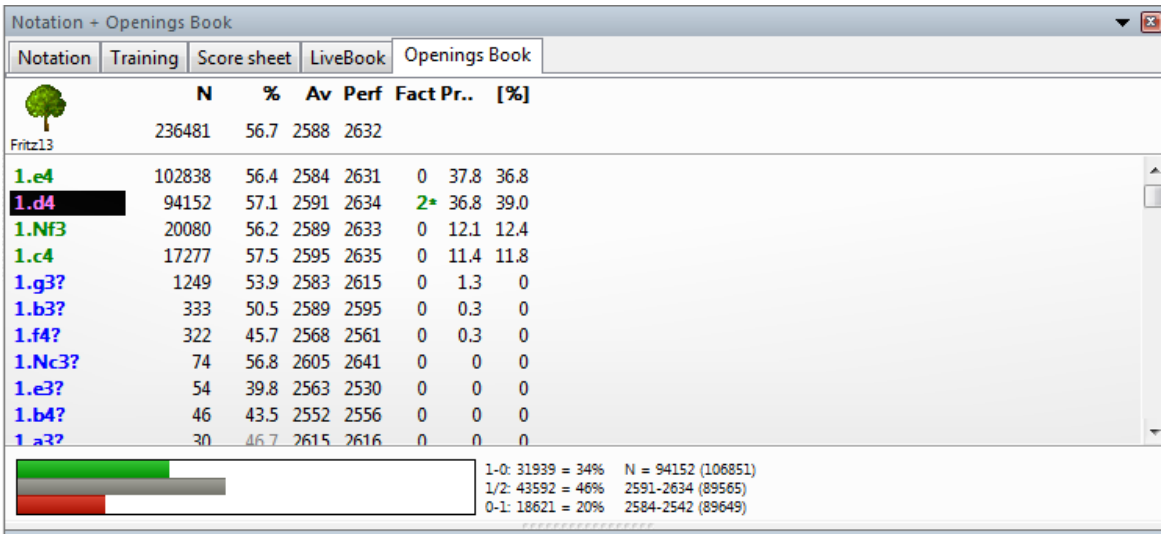
from success and defeat.



The openings book is called the "tree" as the branching variations in the opening resemble the structure of a tree. The files that make up a tree are pretty large. The program requires about 80 bytes to store a position and all the information associated with it. You can leave the files on the program CD. However, in this case, the program will not be able to modify the book as it plays games (i.e., it cannot learn).

Thus, it is advisable to copy them to your hard disk.

Some things to note:

- The size of the openings tree is limited only by the amount of disk space available. It is important to note that access to the information is always extremely fast, even if the files are truly gigantic.

- Existing openings trees can be easily extended, simply by importing games. This means that whenever a series of high quality games are available, the program can read them and extend its openings knowledge.

- The tree recognises all transpositions, even those that did not occur in the games from which the tree was generated. Sometimes you may be able to switch from one known position to another with a move that has never yet been played.

- The tree can handle reversed colours perfectly. For instance after 1.d3 d5 2.d4, the program is likely to reply 2...c5! and play the entire Queen's Gambit as Black.

- The openings tree is not just an instrument to make the program strong, it is also a very powerful training tool for chess players. For this reason each move can be marked with chess symbols like "!" and "+=".

Note: If you are using Windows it is very important to keep all your databases and openings books in the standard directory (My Documents\ChessBase) suggested by the program. Otherwise the operating system will try to back up the giant files every time you close the program.

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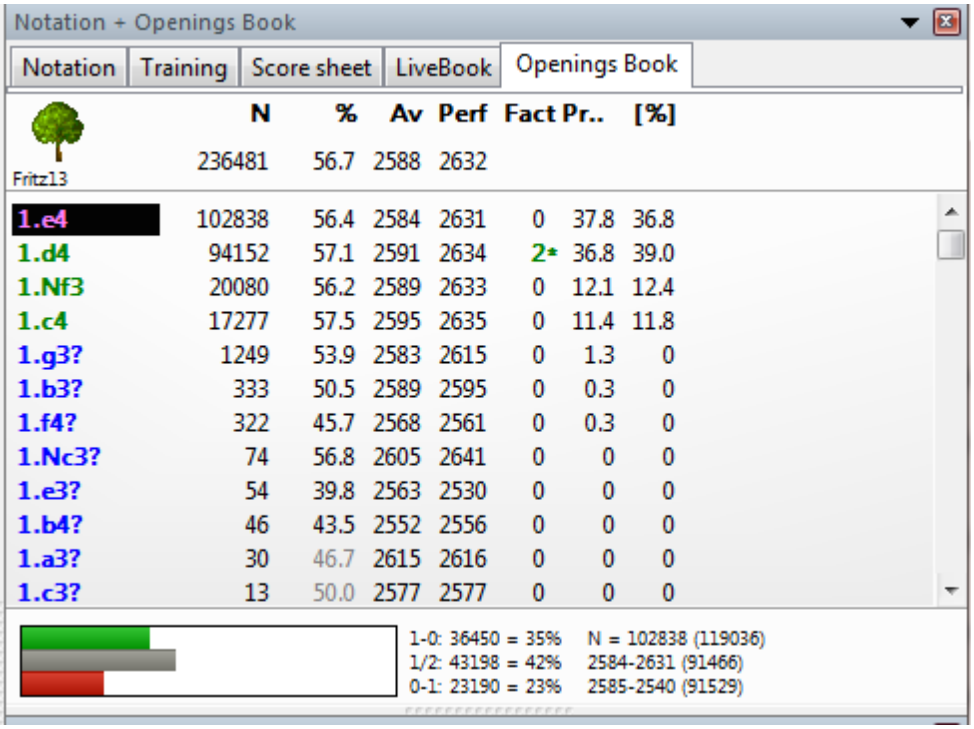
3.3.2 The book window

In the initial phase of a game the program plays out of an "openings book". This can consist of millions of openings positions, and for each of these the program has full information on which moves were played, how often, and with what results. The program stores its own experience with openings variations it has played. It learns from success and defeat.

See also LiveBook ...

You can consult the openings book by clicking on the *Openings book* tab at the top of the notation window (if an openings book is not loaded, click the button and select one from your hard disk).



Extended Book Display ....
This is what you see in the openings book tree:

- **Moves**: (Tree icon) Sometimes a move will appear in grey, which means that it was never played, but leads to a position that results from some other line.

- **N**: (N) The header displays the total number of games which led to the current board position. The N column displays the number of games in which each move was executed.

- **%**: Percentage score achieved by the move, always from the point of view of the colour to play. If the number of games is low, the percentage is given in grey because it does not have great statistical significance.

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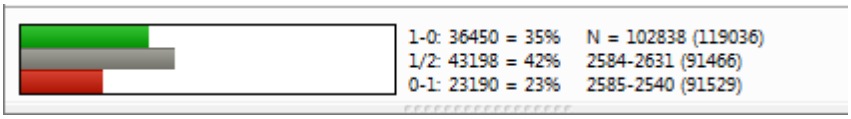
- **Av**: Elo average of the players of the move. If only a small percentage of the players had a rating, then the number is given in grey.

- **Perf** : Elo performance of the move. This is the rating a player would have achieved in a fictitious tournament, playing the move in all his games.

- **Fact**: The factor or "weights" allocated to each move control the probability with which it will choose the move in a game. The value can range between –125 to +125. The values are initially set to zero, but may change when the program actually plays games in the individual variations. You could say that the program is learning from experience. The weights can be manually modified by right-clicking a move and selecting “Change weight”. To reset all weights click Edit – Openings book – Reset weights. After that, the program will use only the purely statistical information to select its moves.

- **Prob and [%]**: The first value is the purely statistical probability of the move, based on the number of times it was played and the results achieved in the games that went into the book. This is the probability of the move being played by the program as long as the weights have not been changed – either manually or by automatic learning. The value on the right [%] is the practical probability of the program playing the move. This is a product of the statistical evaluation and the weights. If you change the latter you can see how the [%] value (but not the “Prob”) changes. In Book options you can determine how much the weights influence the probability of play.



At the bottom of the Openings Book window there is a graphic display of the percentage wins, losses and draws that were achieved with the highlighted move.

How to navigate the tree

- Use the up/down cursor keys to move the headlight bar up and down.

- Use the right/left keys to move forward and backwards in the variations.

- Click a move with the mouse to move forwards in a variation.

- Right-click a move to annotate it.

- In the same menu you can exclude a move from tournament games. The move appears in red. Repeat the action to make it playable again.

- Press F11 to open and close the tree display window.

Book display option

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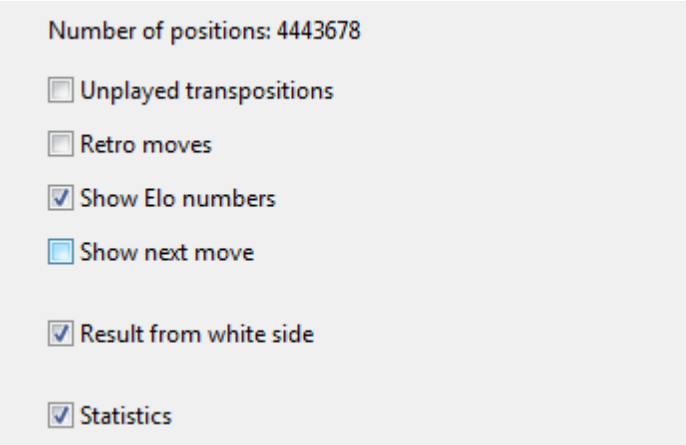
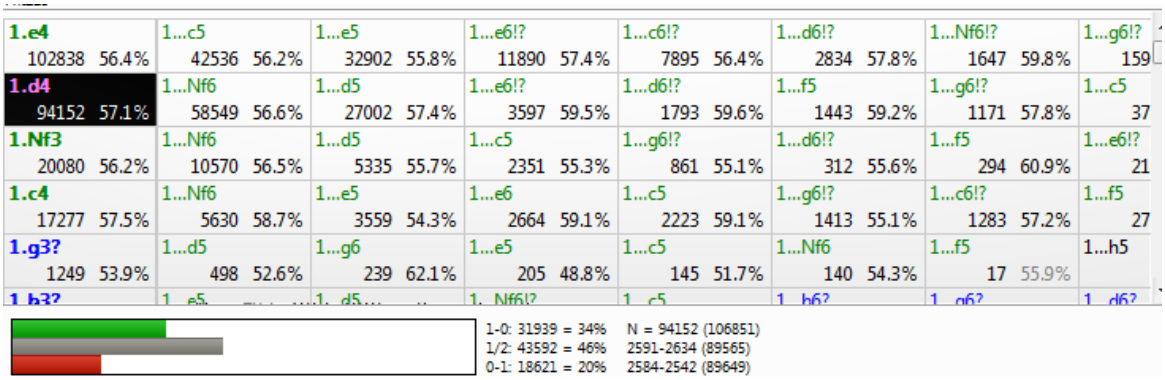
3.3.3 Extended Book Display

In the book options (Rightclick - Properties) you can use ***Show Next Move*** to change to an informative table display.



This makes it easy to see the continuations and statistics that are stored in the position tree.



Inside each box a move is displayed, the number of games in which this move was displayed, and the success rate as a percentage.

If the percentage is displayed in gray it means that not enough games were played to provide a meaningful statistic.

Tip: The subsequent moves are displayed next to one another. If you click on the next move, both moves are entered on the board. This can be tested by using the start position. Click on the move that follows 1.e4, which is 1...c5 in the Opening book. Both moves will be entered on the board immediately.

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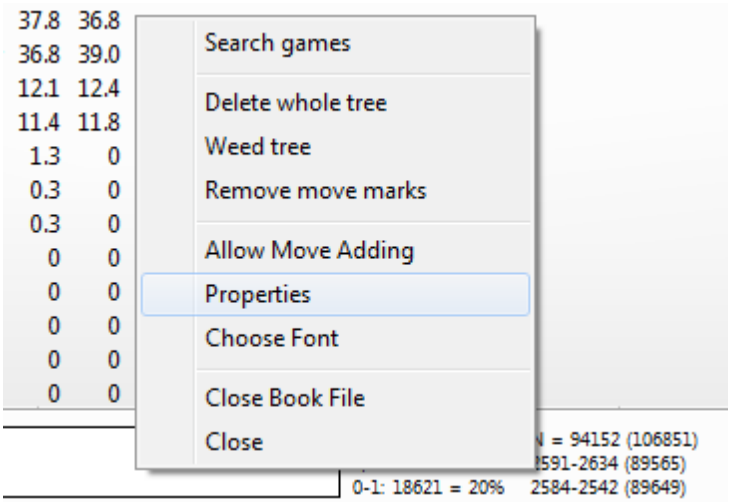
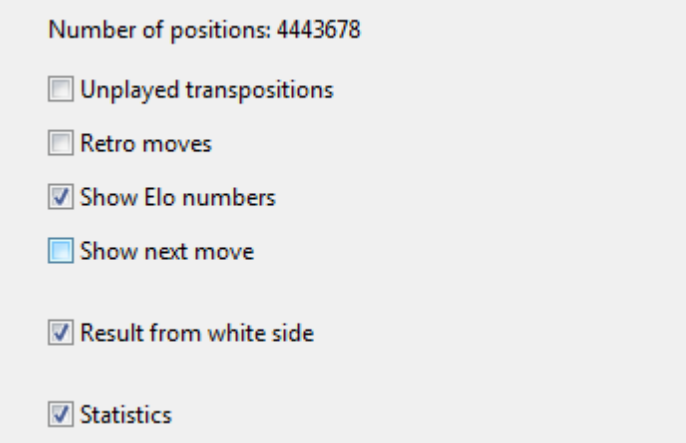
3.3.4 Book display options

To configure the tree window, right-click a free area and select *Properties* in the menu that appears.



A dialog box appears in which you can enable or disable a number of elements of the tree window display.



The top left of the dialog box displays the number of positions in the tree ("Np = ").

- *Unplayed transpositions* are moves that were not actually played in the games, which were merged into the tree, but which lead to another known position.
- *Retro moves* are the moves leading to this position from other positions in the trees.
- *Show Elo* numbers can be switched off to speed up the book display (on slow computers).
- *Show next move* to change to an informative table display
- *Statistics* will produce exact details for each move as a bar graphic at the bottom of

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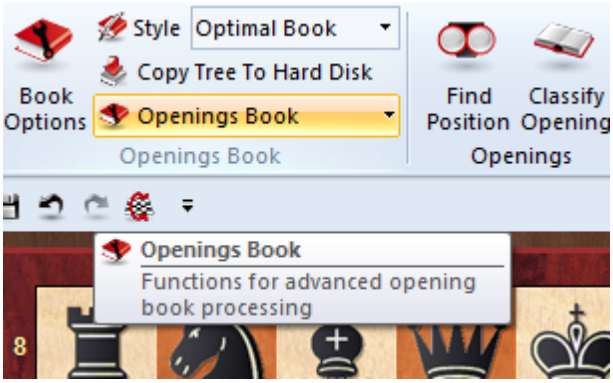
the screen. It shows in how many games the move occurred and what percentage of these games were won, drawn or lost. The graphics make it easy to take in the information at a glance.

- Unplayed transpositions and retro moves should only be used if needed. Because of the many disk accesses they tend to slow down the tree display operations.

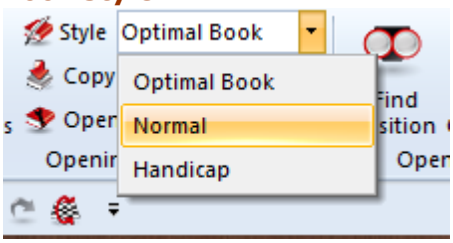
See also LiveBook ..

3.3.5 Book settings

Analysis - Openings Book



Book Style



- **Optimal book** instructs the program not to play moves that have been excluded from tournament play. If the option is off, the moves might sometimes be played.
- **Normal** is for informal games.
- **Handicap** for games on the handicap levels.

Extended book options

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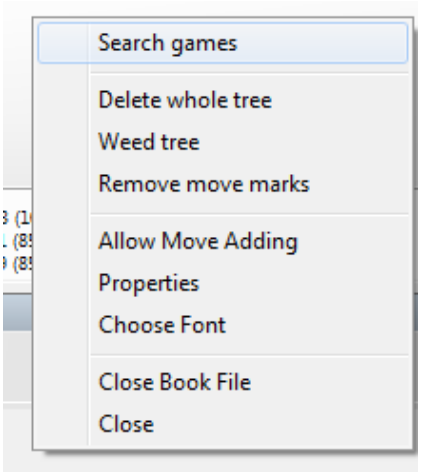
Right-click the tree window (on a free space) for extended openings book options:



- Search games displays a list of all games of the Database in which the current board position occurred.

- Sort allows you to resort the list according to different criteria (number of games, percentage, Elo average and performance).

- Delete whole tree removes the tree from your hard disk.

- Weed tree removes moves which were played in very few games.

- Remove book marks takes out all the evaluation symbols that encourage or discourage the program in its choice of lines.

- Allow move adding makes it possible to add moves to the tree by executing them on the board.

- Properties allows you to set certain display options, like "unplayed transpositions" (moves that have not been actually played, but which lead to another known position) and "retro moves" (moves leading to this position from other positions in the trees).

- Choose font allows you to set a different font and size for the tree.

- Close closes the tree window (the book remains active). Click *View Extra Book Pane* or Ctrl-Alt-B to reactivate the window.

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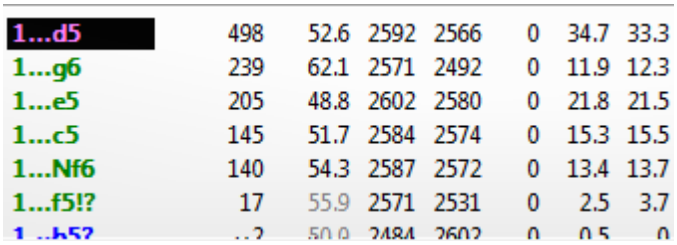
3.3.6 Tournament move

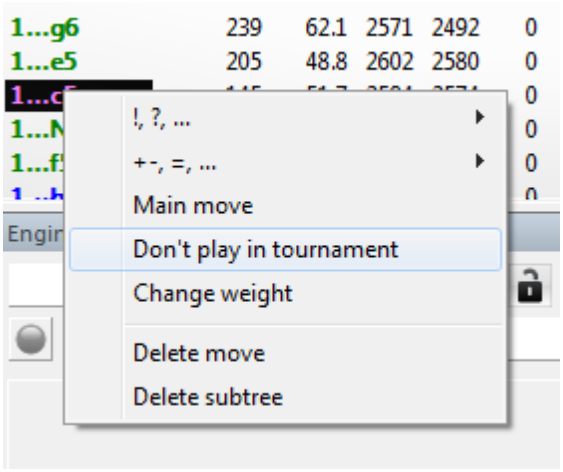
A tournament move appears as green in the openings tree window



1...d5	498	52.6	2592	2566	0	34.7	33.3
1...g6	239	62.1	2571	2492	0	11.9	12.3
1...e5	205	48.8	2602	2580	0	21.8	21.5
1...c5	145	51.7	2584	2574	0	15.3	15.5
1...Nf6	140	54.3	2587	2572	0	13.4	13.7
1...f5!?	17	55.9	2571	2531	0	2.5	3.7

Tournament moves are played by the program if directed in the book options. It will not play a move that has been excluded from tournament play and which appears red in the tree.

If you right-click a move you can change its status (e.g., by selecting "Don't play in tournaments").



3.3.7 ECO chess openings classification

ECO stands for the *Encyclopaedia of Chess Openings* and is used by almost all chess players and publications all over the world.

Individual openings variations have a code consisting of a letter (A – E) and a two-digit number. There are also names for most of them.

Examples:

A51 Budapest Gambit, Fajarowicz Variation
B72 Sicilian Dragon: 6 Be3, lines with h3+Bc4 and sidelines

The ECO classification used by this program was improved by leading openings expert **GM Dr. John Nunn**.

The program can create an openings key based on the ECO code.

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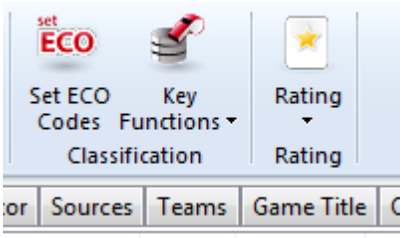
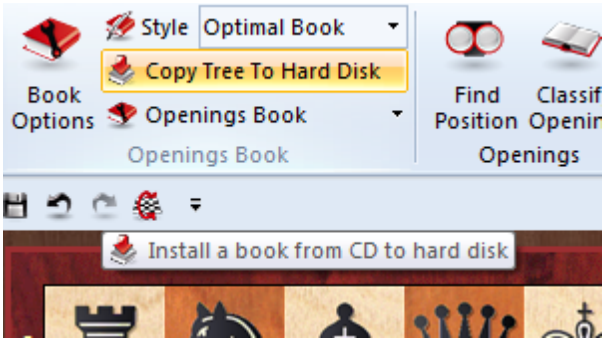


When you save a game, the correct ECO code is automatically inserted.

3.3.8 Copy openings book to hard disk

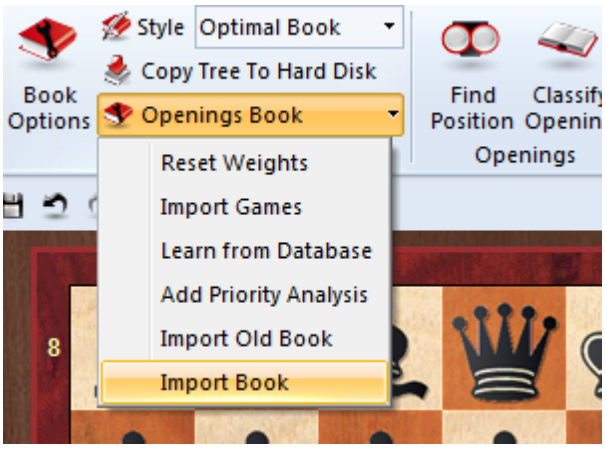
Analysis Copy tree to hard disk



This will copy an openings tree from the CD/DVD ROM to your hard disk, making access faster. Doing this also allows the program to learn from the games it has played and by reading databases.

3.3.9 Import old book

Analysis Openings book



- *Import Book* merges the contents of a different book into the current one.
- *Import Old book* converts a book in the older (FBK) format and imports the

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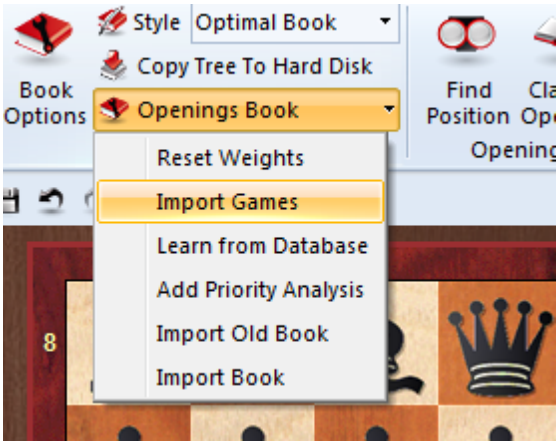
contents.

The program will also convert and import books from the programs *Genius*, *Rebel* and *Chessmaster*. If a move is already in the openings book it will be marked as a preferred tournament move.

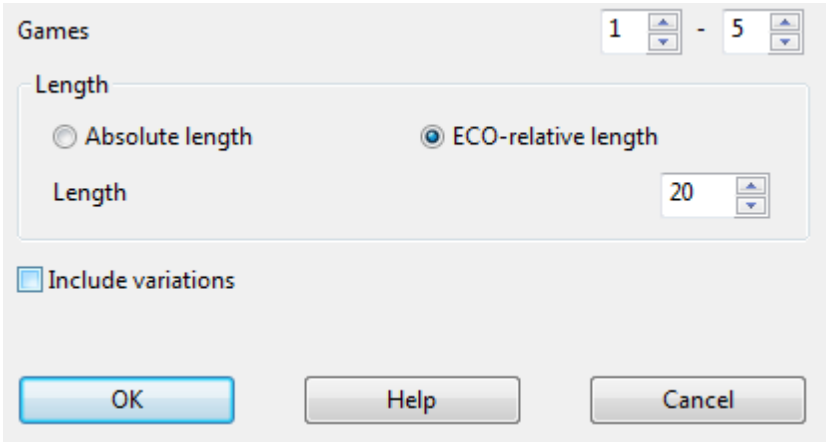
3.3.10 Importing games to the openings book

Analysis - Openings book Import games



This is a very powerful function. It allows you to build giant opening trees with a minimum of effort. You can, for instance, import all the games of your main database, or all from a specific variation (to create a highly specialised book).

The games of the database will be merged to a tree of positions. Crucial for the size of the resulting tree is the length of the variations which are put into the tree. It is not very meaningful to put entire games into it, so you should truncate them at a specific point.



The program allows you to limit the length of the variations in two different ways.

1. You can specify that every variation should be "n" moves long.

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2. It is more sensible to limit the variations relative to the ECO classification. This results in long variations for theoretical main lines (ECO classification position found late in the game) and short variations for side lines (i.e., early deviations).

Obviously, if you choose a shorter length – absolute or ECO-relative – the tree will be compact. But then you are liable to lose some valuable information. If you choose a very large value then the tree will be gigantic, and it will contain a lot of superfluous information. A good practical value for importing games is ECO-relative 20.

You can also include variations (i.e., analysis that might be included in the games), but these are not included in the statistical analysis.

3.3.11 Extending the openings book manually

Fritz and the other chess programs such as Komodo, Houdin, etc. offer numerous automated functions for extending the openings book with selected games. The program evaluates the information and embedded statistics and matches everything to the way the program plays.

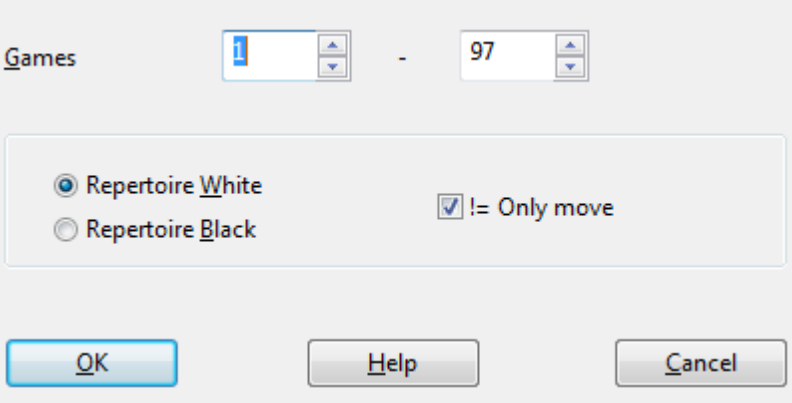
What is less known is the option to extend and modify the openings book directly by inputting moves yourself. A right click in the tree view starts a little context menu which allows you to extend the book by personally inputting moves via the entry "*Allow Move Adding*".

Important: After inputting the moves you want, you absolutely have to deactivate the option so as to prevent the book from being extended involuntarily.

3.3.12 Import analysis into openings book

Analysis Openings book Add priority analysis

Imports the variations of a specified database and marks the moves as preferred tournament moves. In effect, the program is learning from the analysis of the grandmasters.



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The analysis is incorporated as (green) tournament moves.

In the dialog box that appears you can specify how the individual lines will be treated:

- Repertoire White: Every white move becomes a tournament move, black moves are ignored.
- Repertoire Black: Every black move becomes a tournament move, white moves are ignored.

Moves that are annotated with a *question mark* are not played in tournament mode, and appear red in the book window.

! = Only move: This option makes moves that are annotated with an exclamation mark the only moves that will be played. They appear green in the book window, while all alternatives become red (i.e., they won't be played in serious tournament games).

3.3.13 Openings book, learning from a database

The program learns from the games it plays.

But you can also enhance the book in other ways.

The tools for this are in the menu ***Analysis Openings book*** :

- *Import book* merges the contents of a different book into the current one.
- *Import old book* converts a book in the old (FBK) format and imports the contents.
- *Import games* merges the games of a selected database into the tree, including full statistics.
- *Learn from database* adds the statistics from a selected database without actually importing the moves into the tree.
- *Add priority analysis* imports the variations of a specified database and marks the moves as preferred tournament moves.

The program allocates "weights" to the individual lines of the book. These weights control the probability with which the program will choose the move in a game. The value can range between –125 to +125. The values are initially set to zero. The weights are given in the "Engine" column in the book window.

Learning from a database

With this function the program learns from the experience of other players. It looks at the games of a database and pretends it has played them itself. On the basis of the results it changes the weights of individual variations.

Edit Openings book Learn from database

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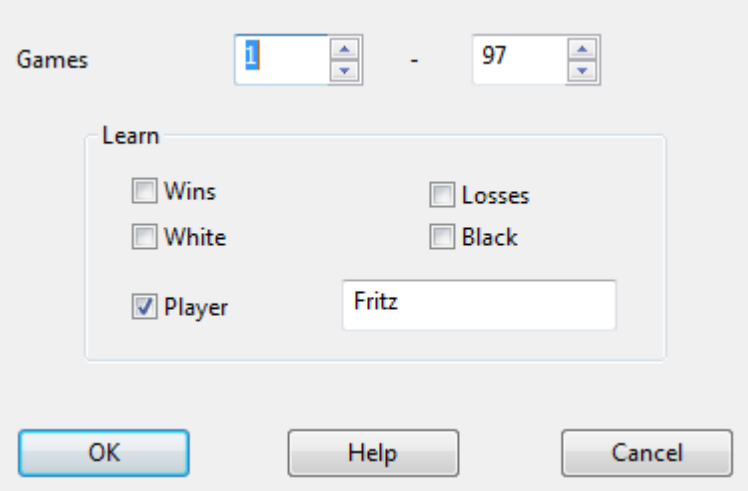

displays a dialog box in which you can set a number of learning parameters.

- **Wins:** Only won games are used, the program increases the weights of white moves if White won and black moves if Black won.

- **Losses**: Only losses are considered. If White lost, the white moves are reduced, and if Black lost, the black moves are reduced.

- **White:** The program evaluates the games from the point of view of White only. The weights for white moves are increased if White won, and decreased if White lost.

- **Black:** The weights for black moves are increased if Black won, and decreased if Black lost.

- **Player:** Only considers the games of one specific player in the database.

These five options can be combined in any way you like. You can also restrict the import to a certain number of games in the database by selecting "*Games*" at the top of the dialog box.

3.3.14 Deleting a game from the Book

How do I delete individual games from an opening book?

An opening book is generated from games which have been imported. For many moves the only information stored in the tree format refers to the number of games in which this move occurred.

For example 1.e4. For this move the tree stores the information about the number of games and the statistical probability of a win based in the games imported. For that reason it is not possible to delete individual games from the tree of positions.

You can delete individual moves from the positional tree, but not specific games.

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3.3.15 Maximum size of the tree of positions

The program plays the first moves of a game from the "Openings book" which comes with it. That is a folder of approximately a million opening positions in which the program finds how frequently specific opening moves have been played and how promising they are.

In addition the program can also store in the file its own experiences with opening variations – it learns from its successes and its defeats.
In the program the openings book is also called the "tree of positions" (tree of variations). The files which make it up are quite big – the program requires approx. 70 Bytes per position.

Apart from the hardware resources is there any limitation to the size of the tree of positions? If so, what happens when this is reached?

At the moment the limit for the size of the tree is 16 TB. So far, no user has managed to generate a tree of positions of that size. Theoretically nothing happens if the limit is exceeded, but this has not yet been tested in practice.

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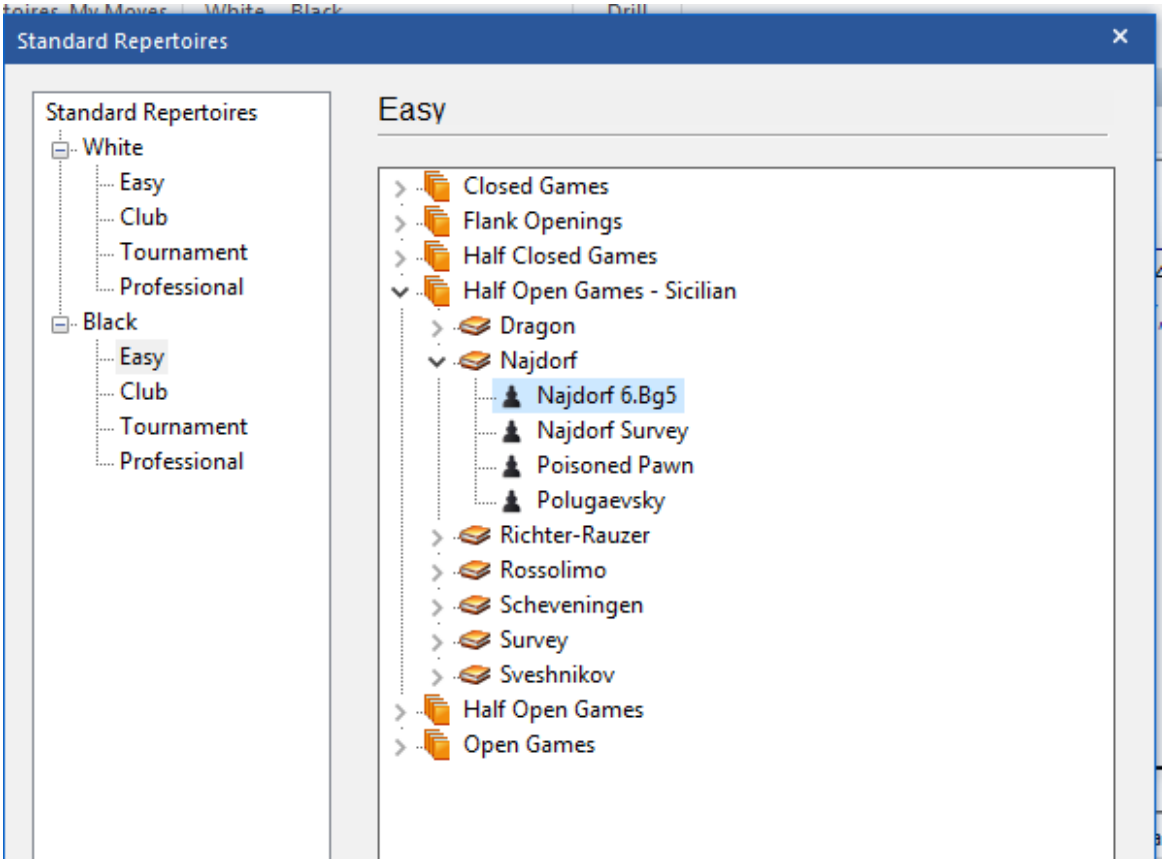
3.4 Opening Training

3.4.1 Start

Effective opening training is an indispensable component of the training of every chess player, no matter what his or her playing strength.



Our recommendation for beginners is to decide at the start on specific systems and after that decision to be continually building up a little repertoire. Chess is not possible without a basic knowledge of theory; *Fritz 17* cannot relieve you of the decision as to how deeply you wish to go into theory. But the program offers you comprehensive support when it comes to quickly and efficiently learning the variations you have selected.

Many openings demand detailed knowledge of complexes of variations. Fritz offers you a suitable pre-defined selection of many standard openings which exactly match your playing level. So the choice of an opening is an important decision since many openings determine the future course of the game. As time passes, beginners develop a better understanding for which openings suit them and will gradually extend their own repertoire. From our point of view what is most important is that "Practice makes perfect" and that is exactly the starting point for the new opening training in *Fritz17*.

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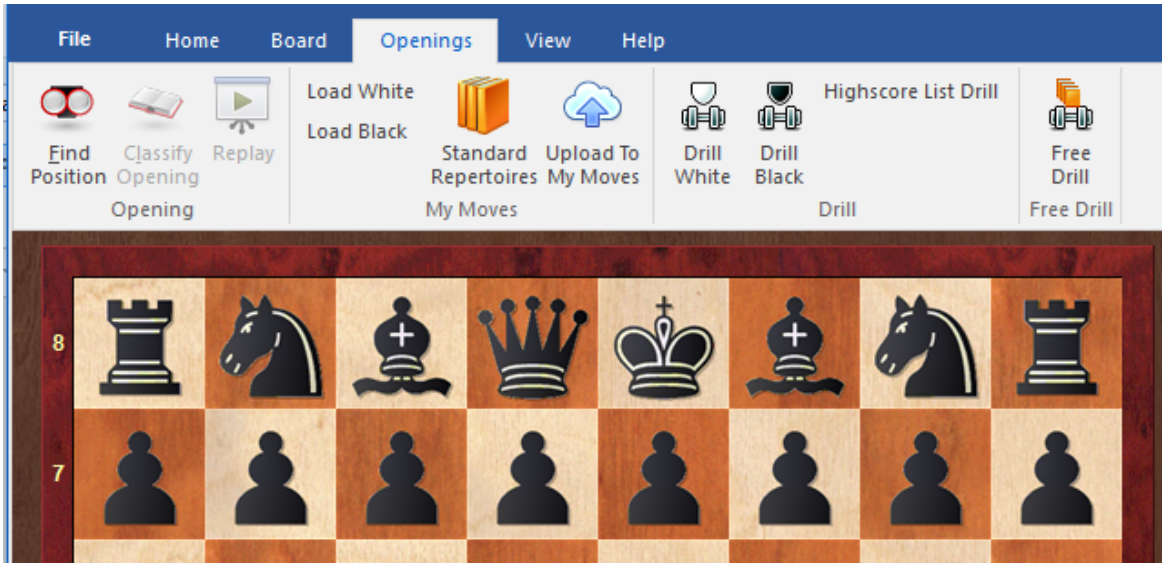
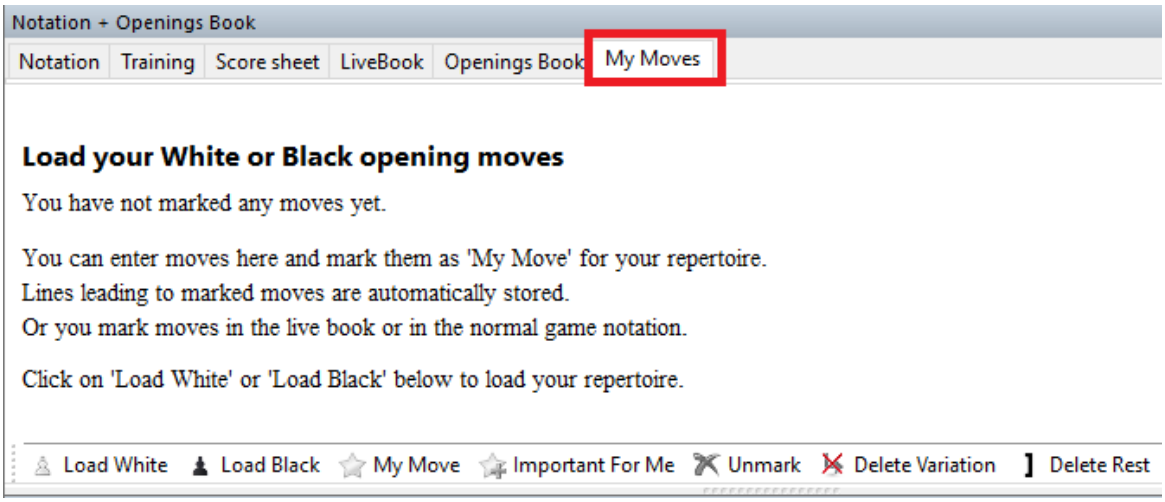
3.4.2 Easy game

The most important training functions can be found from the starting screen of the program by choosing the mode "*Easy game*". There you will find the new tab *Openings* .



The setting affects other modes, for example in the notation window there is the new entry "*My Moves*".



This mode offers you the possibility of efficiently managing your opening repertoire and training in selected opening variations. Something which is important for you to understand: the program logically distinguishes between your White and Black repertoires and the data is stored online on our servers. In that way secure access to your repertoire at any time with your *ChessBase Account* and a browser is guaranteed so that you can edit or look through it.

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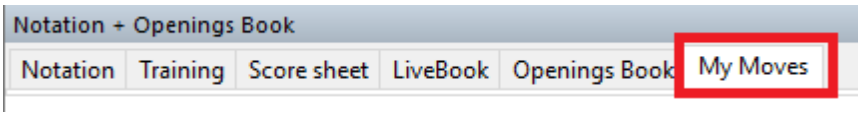
3.4.3 My Moves

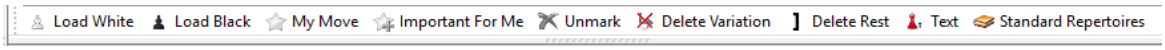
The opening repertoire is managed separately for White and Black. It is managed under the tab "*My Moves*".

A right click on a move, e.g. in LiveBook, takes that move into the repertoire or if no repertoire yet exists it becomes the start of a repertoire tree. This procedure will be described at a later point. Let us take a look at how in this mode you can load an already existing repertoire.

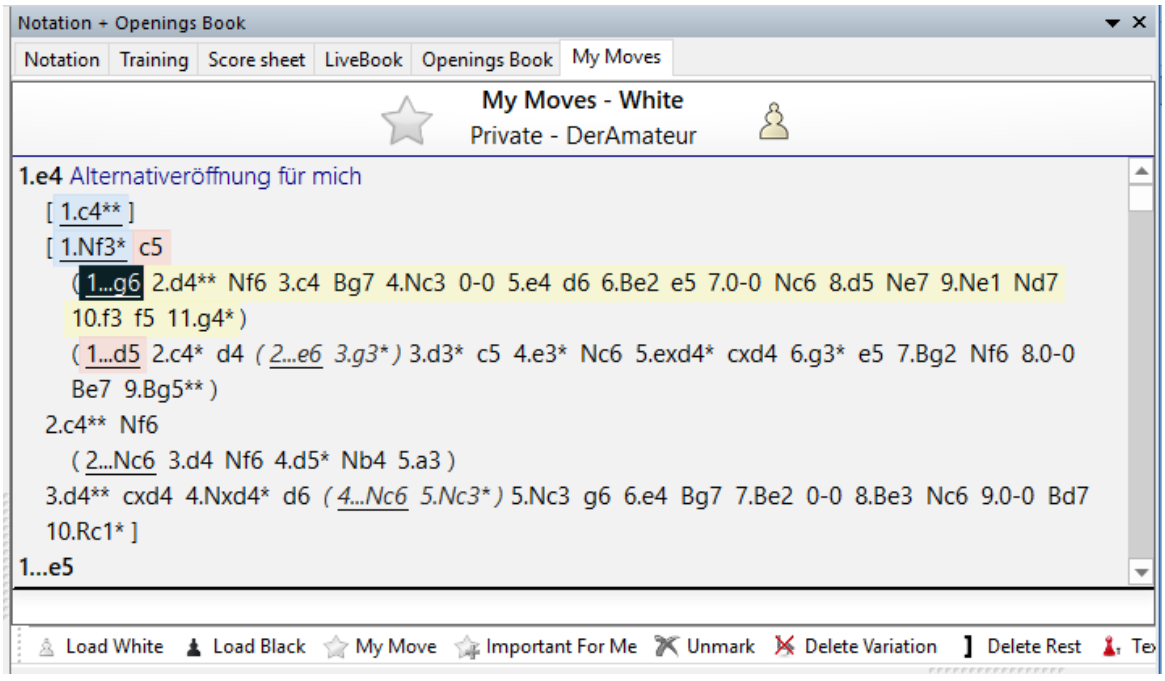
For that, click on the tab "*My Moves*" above the notation.



If you now cast a glance below the notation you will find displayed all the relevant functions you need to work on your repertoire.



A click on "*Load White*" loads the tree of variations which contains your repertoire for White. The next screenshot shows a section of an edited personal repertoire for White.



Now, for example, you can work on the variations in the tree by means of the editing bar, e.g. mark specific moves as particularly relevant for your repertoire. Alternatively, these editing functions are available to you whenever you right click on any move you select.

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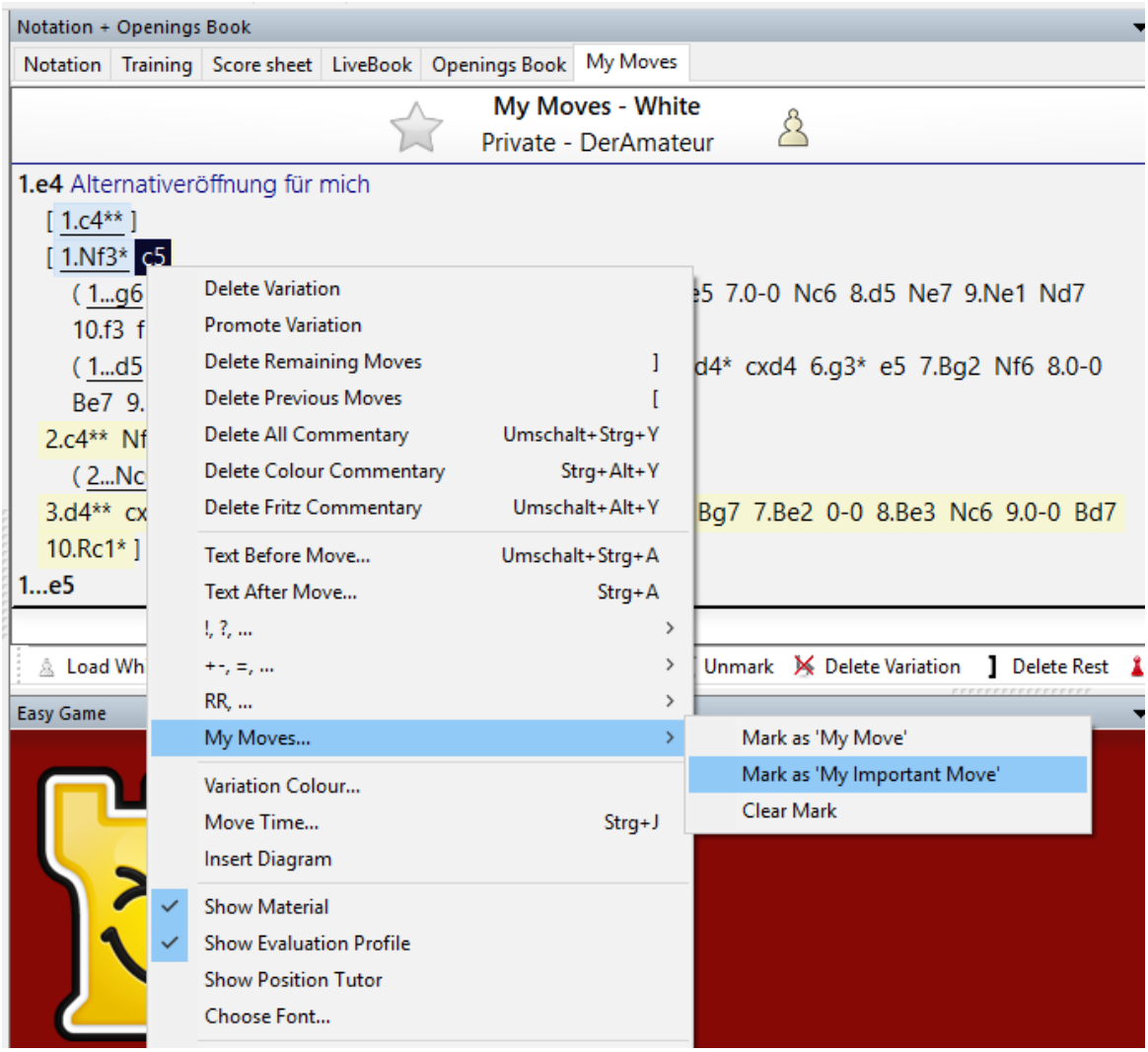

3.4.4 Extending your repertoire

Whenever you play through or analyse a game, you have various options available to you for extending your existing repertoire. For example, if you wish to include complete variations you can realise that simply by highlighting a move as “My Moves”. That transfers into your repertoire the complete move order up to and including the move highlighted. This saves you the painstaking manual inputting of complete variation trees.

Over and above that there are other options for marking specific moves or variations

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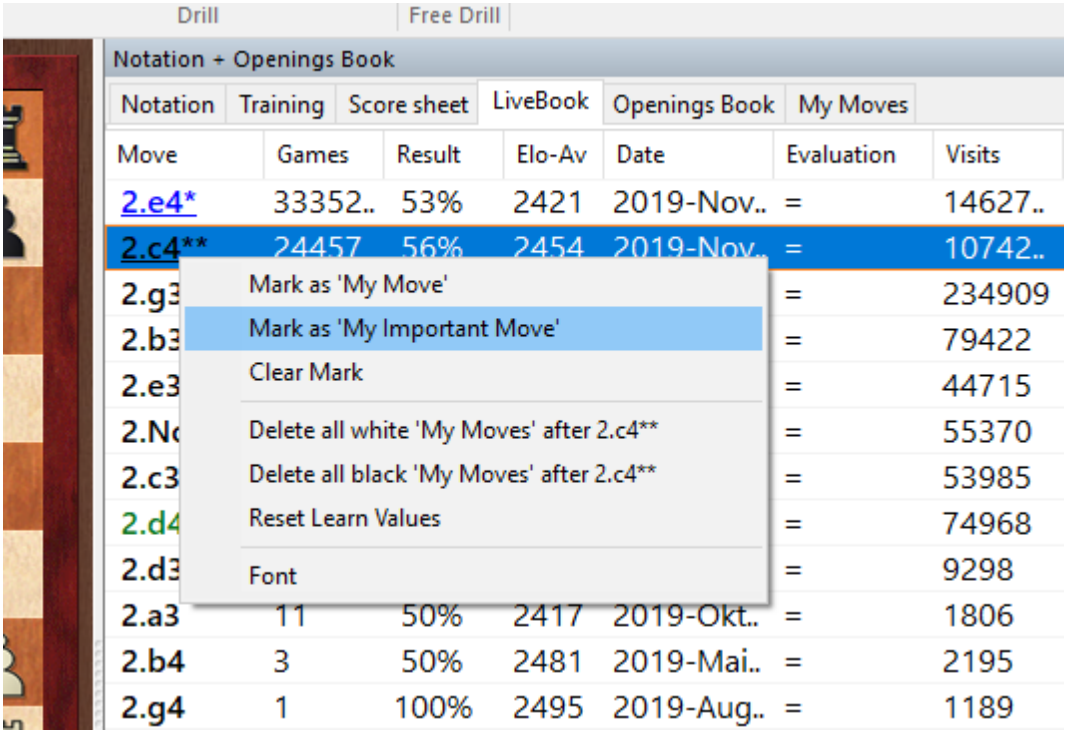
as relevant for your repertoire. These options can also be found in other modes of the program.

Right click menu in the notation -> "*My Moves*".

Right click menu in LiveBook



Browser button below in LiveBook

Browser button below notation in the "*Enter & Analyse*" mode.

Browser button below notation in the "*My Moves*" tab.

The repertoire trees which gradually emerge for White and Black are saved online. You can look at or edit the repertoire with Fritz, but also in other ways. It is available from any computer with an activated *ChessBase Account*. So, like that you can access your openings from any computer connected to the internet. The information is there for registered users across all platforms.

If, for example, you are playing through games on our news pages or following live broadcasts, you will find the relevant opening moves from your own repertoire highlighted in colour. Like that, while actually playing through a game you can recognise at a glance to what extent the move played in the game is relevant to your repertoire.

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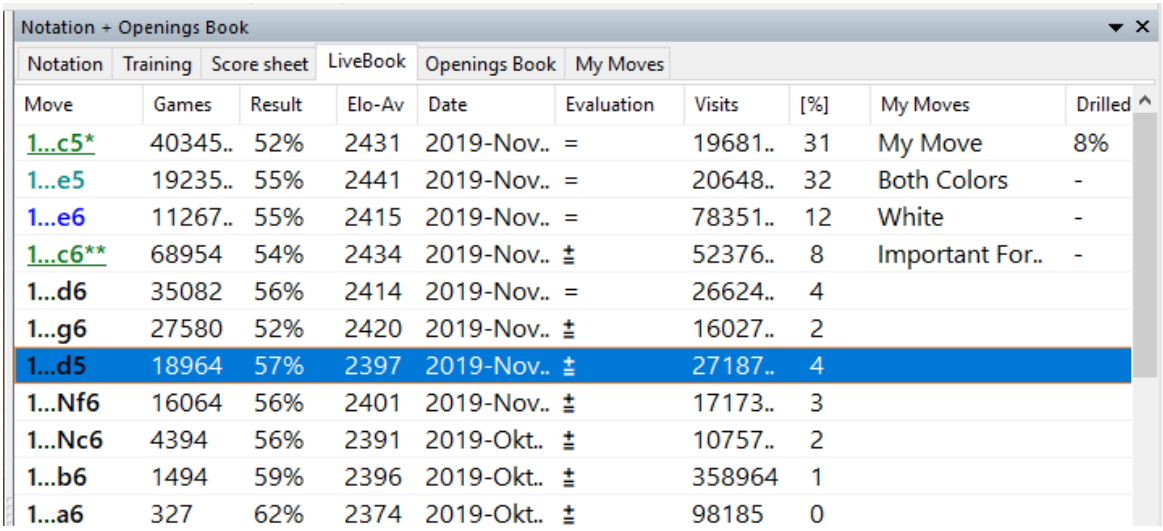
3.4.5 Coloured highlights in the repertoire

By using various coloured highlights and special symbols you can directly decide whether a move belongs to your White or Black repertoire. The following indications help you with the classification of a move which is being displayed, e.g. in LiveBook.



Move	Games	Result	Elo-Av	Date	Evaluation	Visits	[%]	My Moves	Drilled
1...c5*	40345..	52%	2431	2019-Nov..	=	19681..	31	My Move	8%
1...e5	19235..	55%	2441	2019-Nov..	=	20648..	32	Both Colors	-
1...e6	11267..	55%	2415	2019-Nov..	=	78351..	12	White	-
1...c6**	68954	54%	2434	2019-Nov..	±	52376..	8	Important For..	-
1...d6	35082	56%	2414	2019-Nov..	=	26624..	4		
1...g6	27580	52%	2420	2019-Nov..	±	16027..	2		
1...d5	18964	57%	2397	2019-Nov..	±	27187..	4		
1...Nf6	16064	56%	2401	2019-Nov..	±	17173..	3		
1...Nc6	4394	56%	2391	2019-Okt..	±	10757..	2		
1...b6	1494	59%	2396	2019-Okt..	±	358964	1		
1...a6	327	62%	2374	2019-Okt..	±	98185	0		

Blue = the move belongs to your White repertoire

Green = the move belongs to your Black repertoire

Turquoise = the move is played with both colours.

"*" = marked as 'My Move'.

"**" = marked as 'important move'

The display of *LiveBook* in the various web applications follows the same principle in the browser.

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Here too, you can recognise the relevance of a move for your own repertoire by means of the coloured highlighting. With Black (green) 1... c6 is played. The move is highlighted. The White repertoire (blue) contains a system against 1... e6. At some later point in the variation there will be a move highlighted for White.

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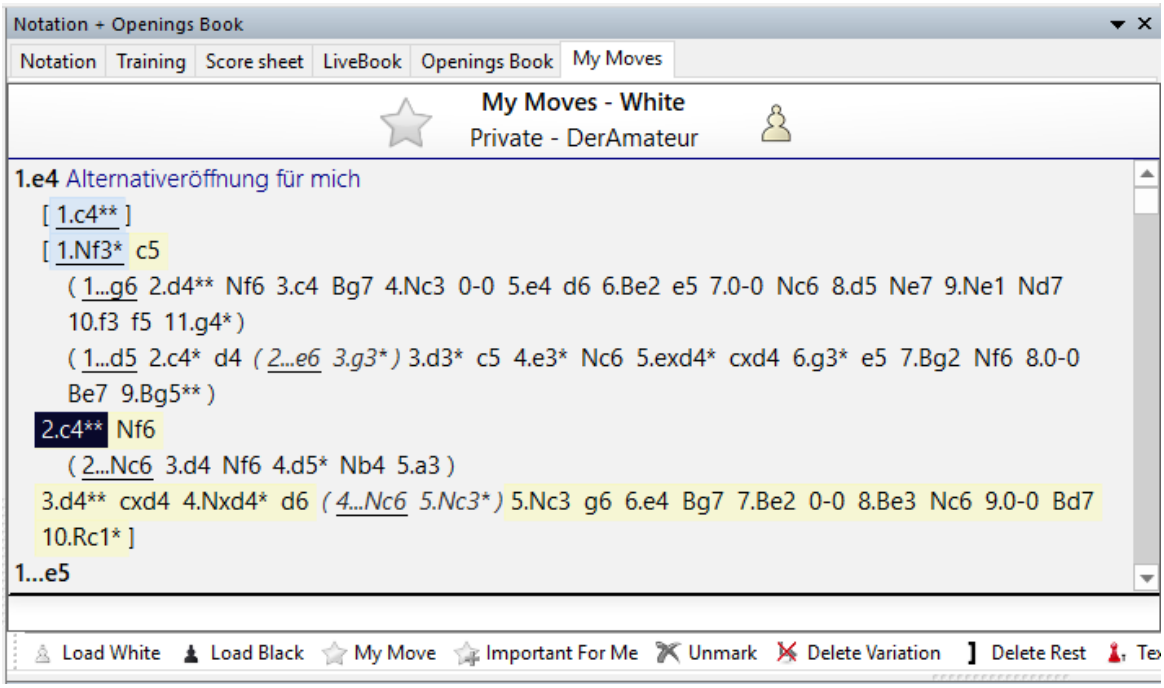
3.4.6 Working with a repertoire

You can load either of the two repertoires into the notation window under My Moves by using the buttons "*Load White*" or "*Load Black*".



A click on "*Load White*" loads your White repertoire into the notation window. Moves with "*" are highlighted as relevant, moves with "**" are marked as important.

The structure of the notation is managed automatically. A variation becomes a main variation the more moves, highlighted moves and important moves it contains. Highlighted moves are given more weight than simple moves and important moves even more. Therefore it can happen that after a move has been highlighted the hierarchical structure of variations is changed.

The notation under "My Moves" is independent of the game which has just been loaded. Using the key combination Ctrl-C / Ctrl-V you can paste a game from the main notation into "My Moves".

Hint: Nothing is saved if do not highlight moves in the variations. For the moves to be taken up in your repertoire and saved, it is absolutely necessary to highlight the appropriate and relevant moves!

Tip: At any point with the "My Moves" tab open you can via File -> Save secure the repertoire which has been loaded into a database.

If you want to upload into your repertoire an existing variation tree, use the function *Openings -> Upload to My Moves*. If highlighted moves are present, only these are used and the corresponding variations automatically attributed to White or Black.

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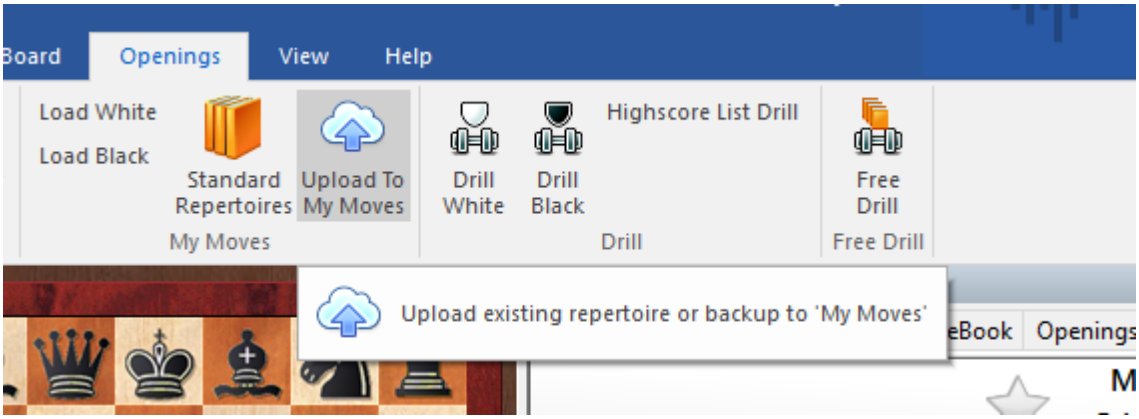
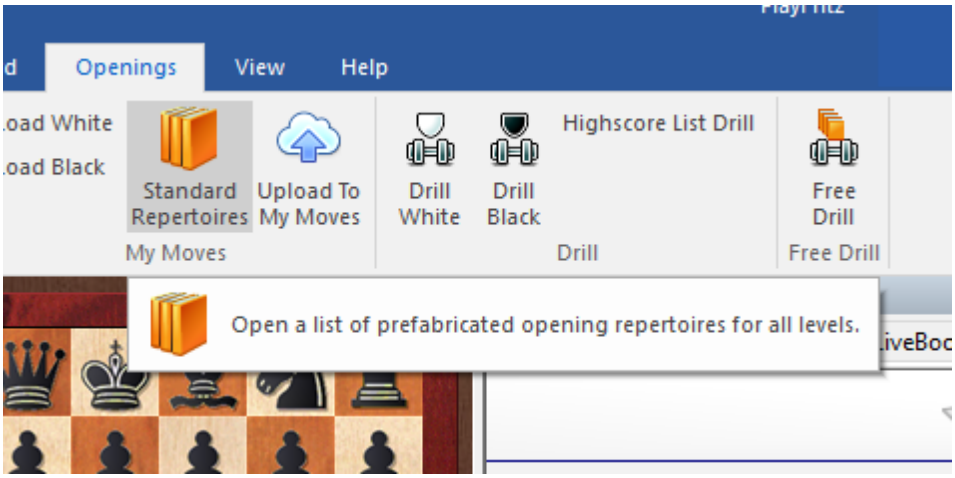


If no highlighted moves are present, the program asks whether the variations to be uploaded should be for White or for Black. It does not matter at all if you upload the same variations several times, nothing will be duplicated or overwritten.

3.4.7 Standard Repertoires

Included with the program is access to pre-prepared repertoires. This puts at your disposal another easy possibility for the extending of existing repertoires.

An overview of the ready-made repertoires can be found under *Openings Standard Repertoires*.



This way the program offers you access to complete opening surveys dedicated to the most important opening systems!

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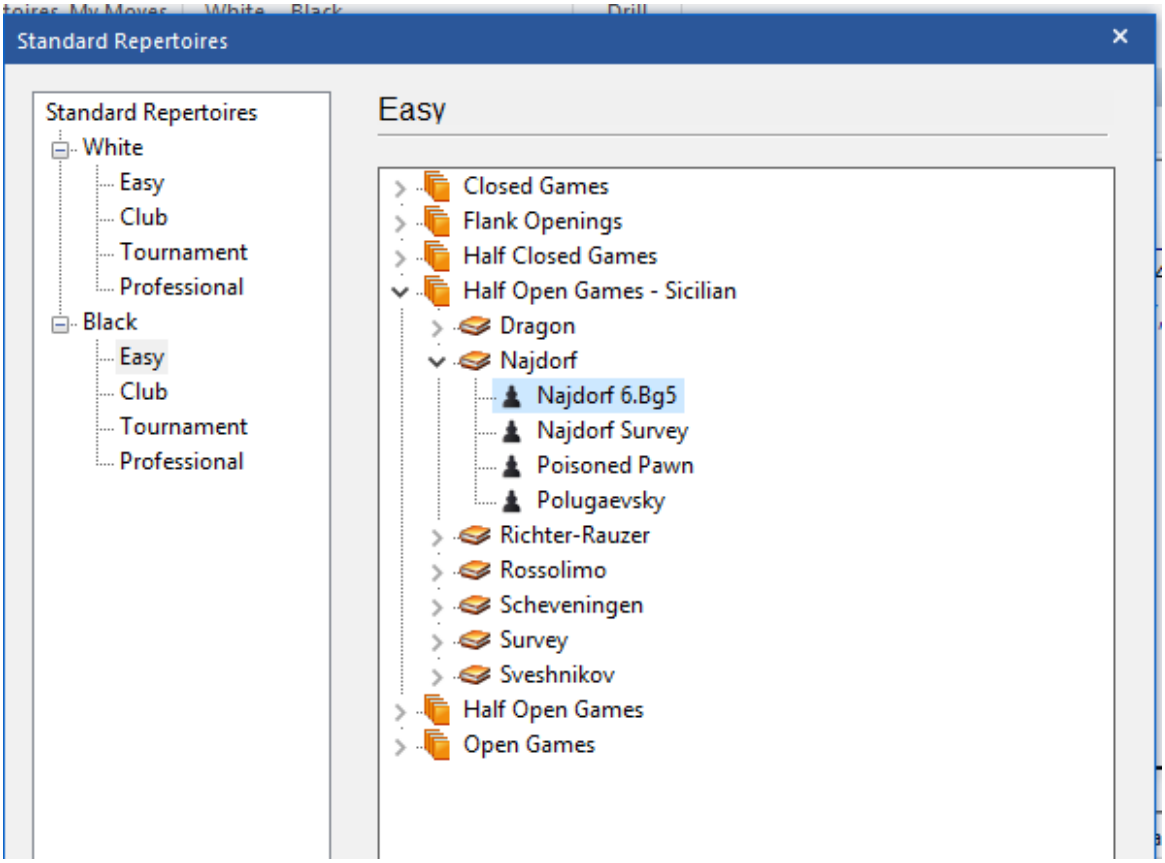

These surveys are excellently suited to the learning of new openings; for club players as a rule knowledge of the most important main variations will suffice. Each of the repertoires on offer can be trimmed, or the view homed in on your personal needs. This setting is achieved via the button in the left-hand window.

The settings *Easy* and *Club* offer repertoires which are set out with maximum clarity for whenever you want a quick overview of an opening system. For the settings *Tournament* or *Professional* the presentation of the variation tree is correspondingly more detailed and more complex.

The following illustration is of the *Easy* setting for the *Najdorf Survey*.

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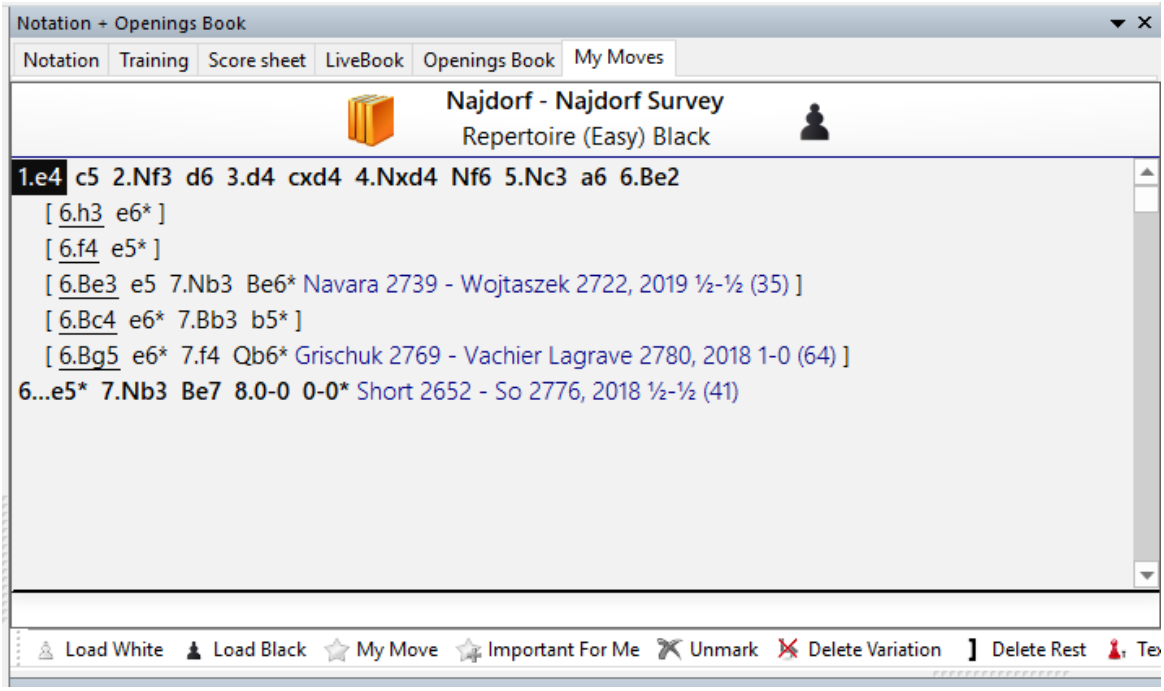
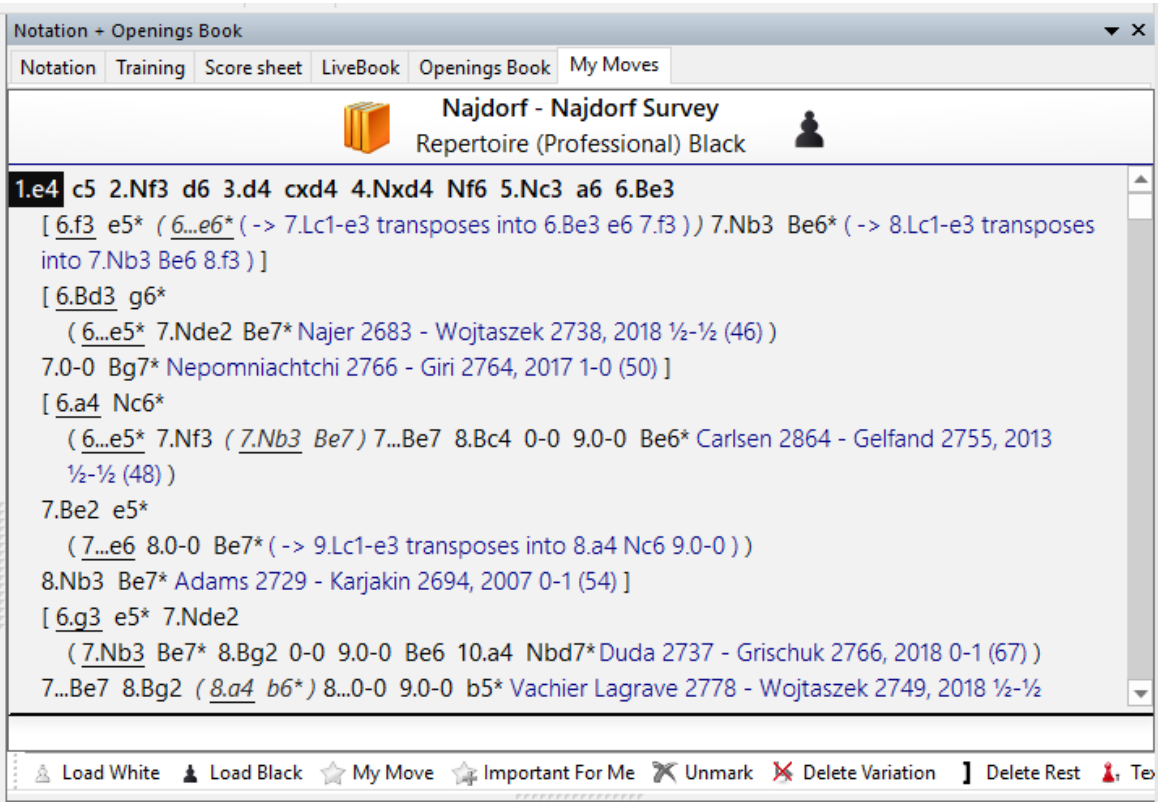


As can be seen, the representation is limited to the absolutely necessary basic knowledge of the system. If you choose the *Professional* setting, the presentation of the variation tree is tailored to the needs of that target group.



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Each repertoire is set up either purely for White or purely for Black. For each colour there is a clearly best move and everything else is ignored. Try for yourself and you will spot at a glance the difference in presentation. The settings *Tournament* and *Professional* are suited above all to players who know their openings very well and who wish to get an overview of recent trends in theory. In combination with the training functions these detailed repertoires provide a solid foundation for spotting recent theoretical trends and for learning openings.

As previously described, you have available to you the option to upload complete selected repertoires into "My Moves" or to take in individual variations with the ways of highlighting moves which have been described. Alternatively, you can also save the variation tree as a game and do more work on it at a later date.

3.4.8 Memorising opening variations

Database programs create a tempting illusion: technically well-structured management of variation brings about the impression that one is the master of these over the board. Of course, it is great fun to work out complex systems of variations and to keep up-to-date with theory. But for practical success there is no way round safely learning by heart the mastery of the said systems. Especially when choosing tactically forcing variations the user cannot get by without a considerable amount of hard work learning if he or she wishes to properly master the system. After you have set up your opening repertoire and integrated new variations by highlighting them, some useful aids to learning are at your disposal.

The function ***Drill*** starts a way of playing in which you can input the moves which belong to your opening repertoire. As you input your variations the program reacts in such a way that where possible you can remain within your own repertoire. The choice of moves is at first determined by their frequency according to theory. After some time, it will become clear what you have properly mastered and what not. The problematic systems will be repeated more often so that with the least possible effort you can rapidly gain in confidence. This system is well-known from the learning of foreign languages.
For the whole business to be fun, Fritz measures the size of the area of theory which you have safely mastered and enters that as points in a ranking list (https://mymoves.

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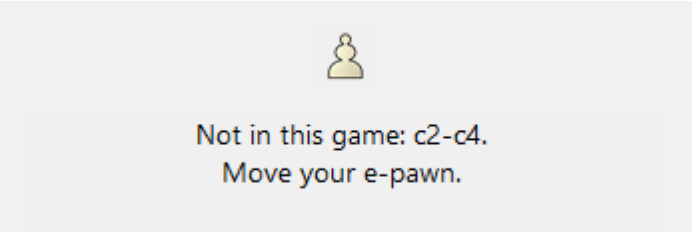
chessbase.com/rankinglist).

What also resembles practical play is that during the drill you can decide at the end of each variation whether you wish to move on into a training game.

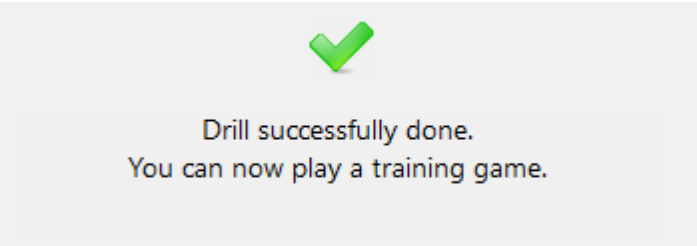
In that case the program provides you with an opponent which is similar to a human. For that reason, the Drill function is to be found in the "Easy Game" section of the program.

Click on *Openings -> Drill White* in order, e.g., to memorise your White repertoire. If you are not yet at the correct starting point input the moves to take you to the desired position. Like that you can limit things to the variation you wish to play. Then click on the option "Start Drill" in the dialog which is displayed.

If you enter a move which is not saved under "*My Moves*" the program automatically takes it back and the saved measure of successful learning for this move is set back to 0. Then the Drill dialog shows a tip concerning the correct move.



In addition the Drill shows how well your memory is performing. If a move is properly chosen five times in succession it is considered to be completely assimilated.



The repertoire is completely memorised (Memory performance = 100%) whenever that has been achieved for all the moves. Moves which have been completely assimilated are proposed less often in the drill.

The number of fully learned moves for White plus Black is put into a ranking list. It brings together both the size of the repertoire and how well it has been safely mastered.

Log on to the website mymoves.chessbase.com with your *ChessBase Account*. The ranking list is displayed on the website and your name is highlighted in colour.

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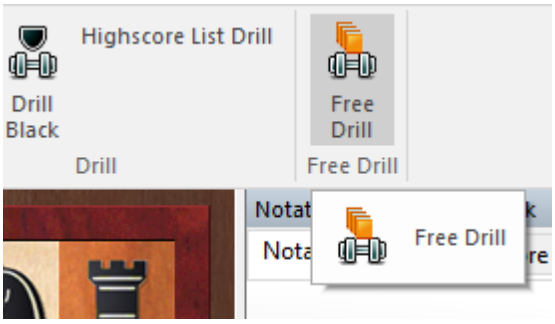
3.4.9 Free Drill

The *Free Drill*function can be used with any variation tree.



One possible way of deploying it, for example, consists of loading a survey from the standard repertoires and memorising the new variations with the Free Drill.

In Free Drill your progress in learning is not saved. The function is suitable for practising with existing opening trees without these having to be saved under “My Moves”.

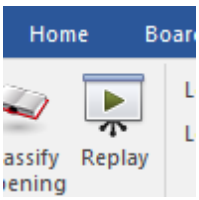
This function is also very suitable for the learning of complete games.

3.4.10 Viewing your opening repertoire

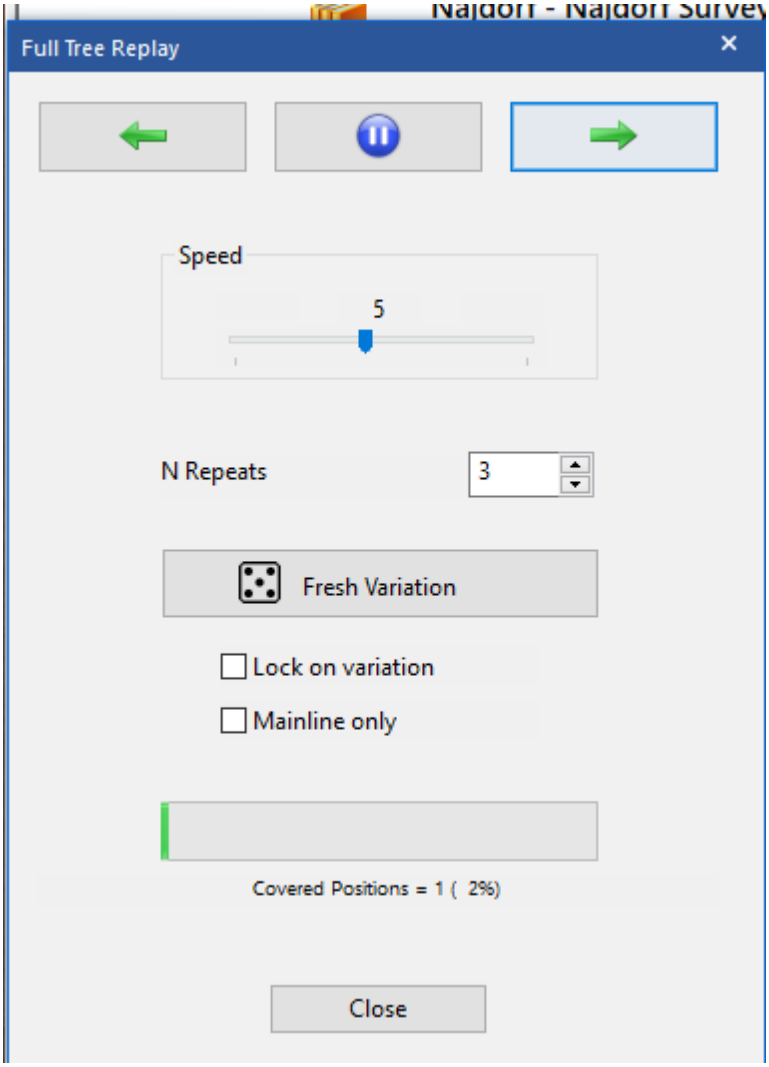
Opening theory is best assimilated when you execute the moves either on the screen or at a board. But sometimes at the end of a long day all you want to do is to relax, lean back and take your finger off the mouse.

For that the program offers you the presentation of a variation tree. That means of course your repertoire, though it can be any game. Each sub-variation is repeated as often as you wish.

Simply start it, choose the speed and watch.



© ChessBase 2019



In the dialog box you can set the speed at which the moves are played, stop the process and determine the number of times you wish a variation to be repeated. Additionally, you can determine whether the automatic display should concern the main line or specific variations.

Instead of, as previously, painstakingly reading off the variation from a book and playing it out on the board several times in order to learn it, the program automatically displays the repertoire selected on the chess board for the user.

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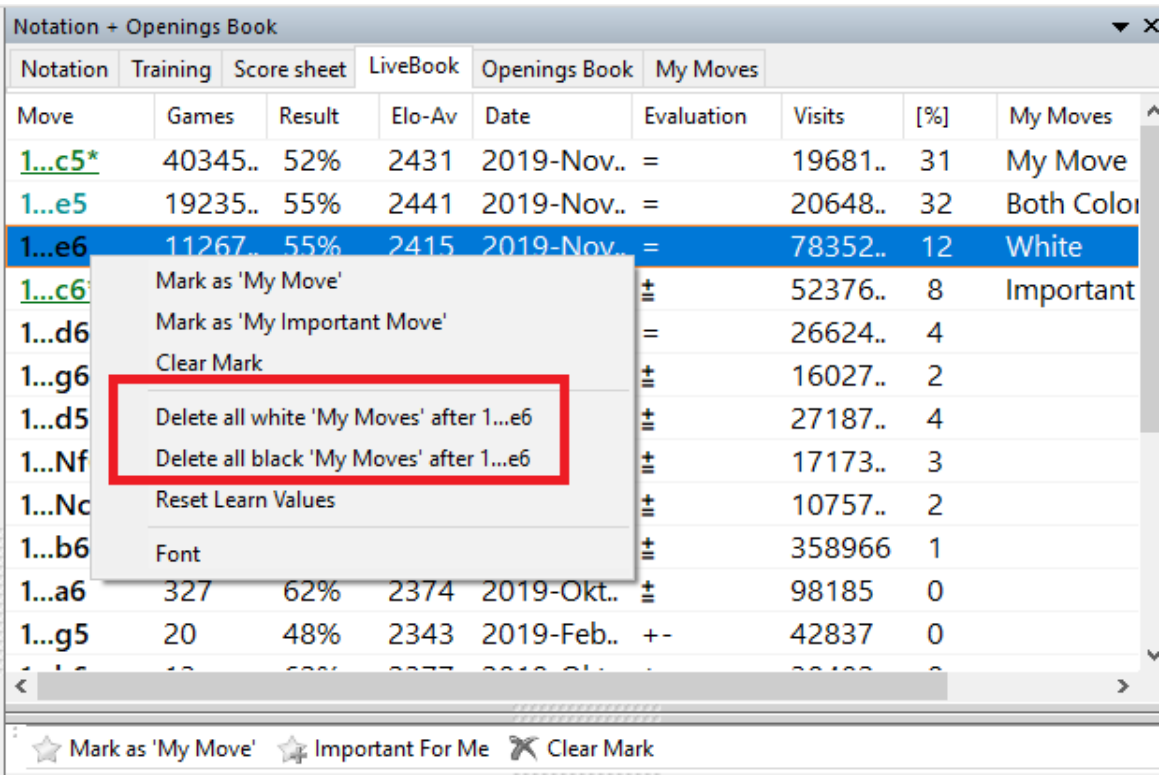
3.4.11 Repertoire deletion

It is tempting to extend one's repertoire with the Upload function. Many users, above all when setting up a repertoire quickly, integrate parts of the pre-defined repertoire or games. In principle that is a very practical function but one that also has its drawbacks. For example, it might happen that at a later point in time there are specific variations you no longer wish to have in your repertoire and in order to make the variation tree clearer you wish to "purge" it.

To do that the program provides you with simple editing help in deleting specific parts of a tree from the repertoire. Simply load the LiveBook view, in which you will find your repertoire highlighted in colour. The key function for deleting specific variations can be found by right clicking.



Let us say you have uploaded a few French tree structures from the standard repertoires into your own repertoire. Now you would no longer wish to have them listed in your repertoire and "My Moves" is too confusing. Then go to 1... e6 and access "Delete all ..... after ....".

3.5 Database functions

3.5.1 The database window

This program has sophisticated database functions and can store any number of games in many different databases. These may be games you play against the program, but also historical and topical games which are available in very large numbers from the manufacturer ChessBase.

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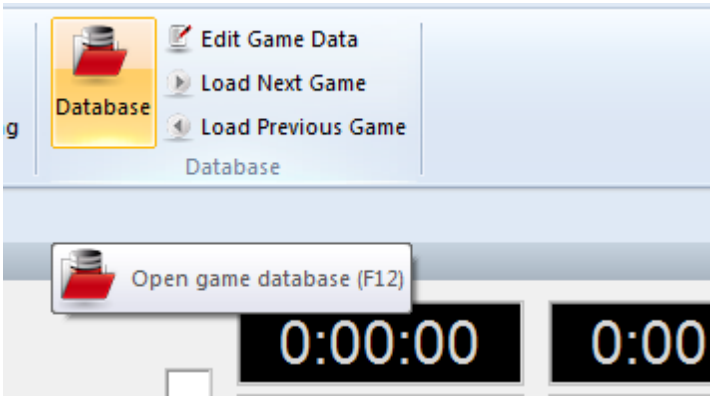
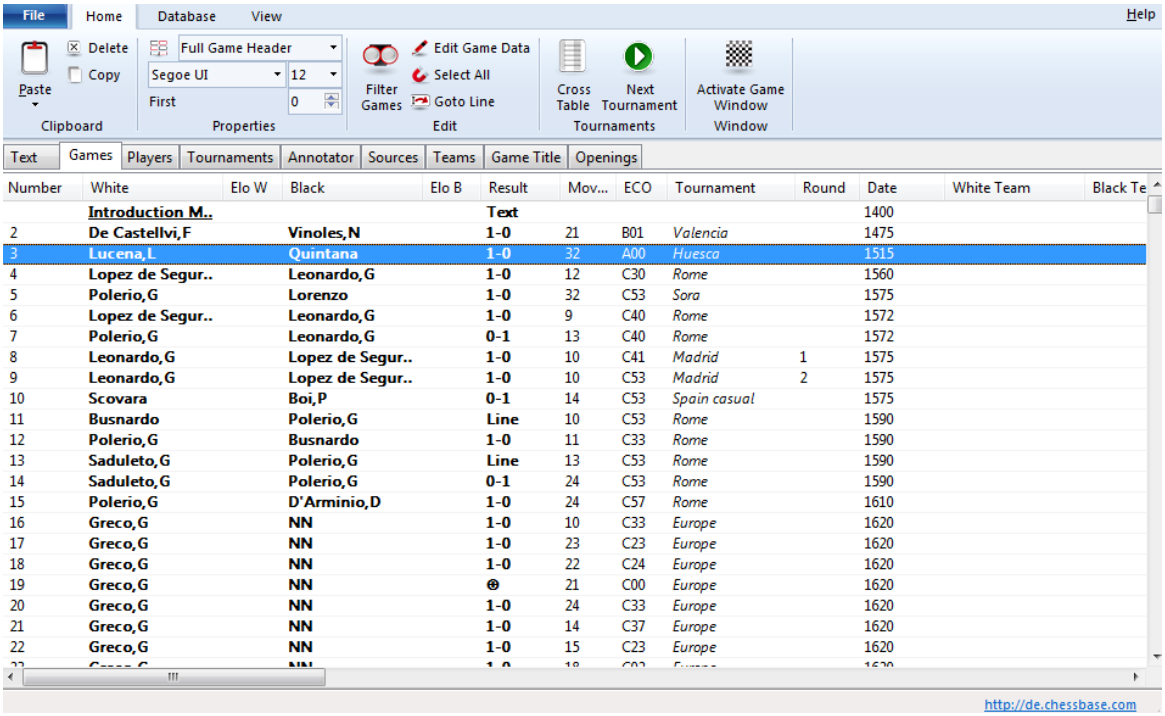
The games are automatically classified according to all kinds of criteria. And you have powerful search tools that are able to locate any game in a very short time.

Home Database window



This opens the separate database window with a list of games of the Database.



You can also get there from the main board by pressing F12 or **Esc**. These keys will get you back to the board window.

There are also buttons in both menu bars that will do the same.

The database window always displays the contents of the currently opened database. You can switch to other databases, create new ones, copy games, have the program analyse them, create tournament tables, indexes, etc.

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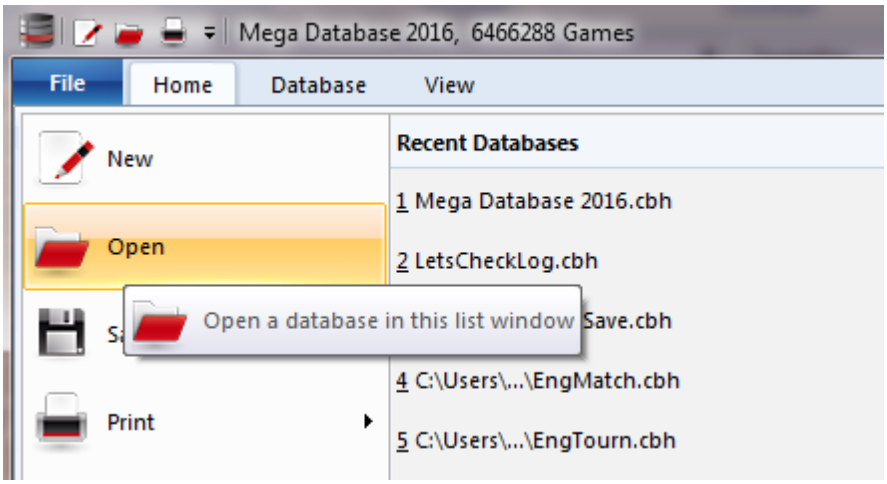
Here are the main functions:

File Menu Open

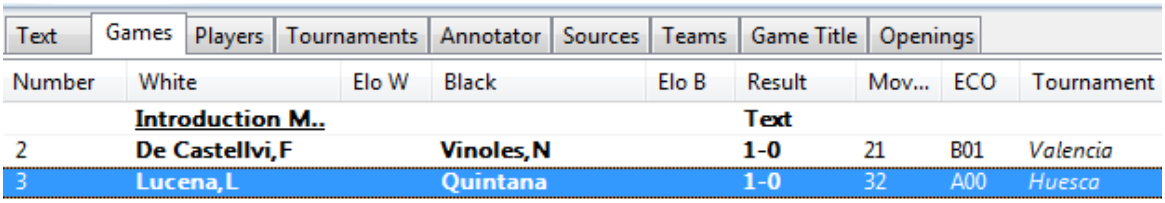


Use this command to browse for the database you want. The databases can be in many different formats – CBH, CBF, PGN, etc. You can convert games from one format to another by copying them into a database with the format you require.

Filter games (or Ctrl-F)

Produces a "search mask" in which you can tell the program to look for particular games.

At the top of the list there are a number of tabs that lead to the different indexes.



The information in the games list have been sorted more clearly in Fritz 15, and the columns have been significantly extended. The games list contains a list of the texts, games and game fragments, including (if available) the Player, Tournament, ECO Classification, Date, Result and Number of Moves.

In addition, the database functions have been extended to allow direct access to the Player, Tournament, Commentator and Team indexes.
Text – shows the texts available in the database.

- **Games** – shows the games list of a database in the order in which they were stored on the hard drive. You can access the games by browsing, filtering or sorting.

- **Players** – The player index

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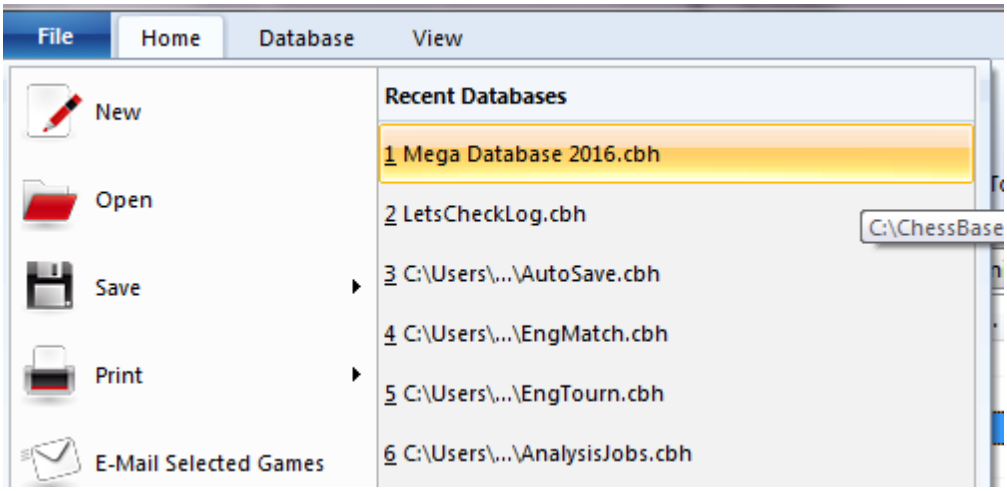
- **Tournaments** – The list of tournaments
- **Commentators** – The commentator index
- **Sources** – The list of sources
- **Teams** – The index of team events
- **Game titles** – With the help of your own texts you can easily access specific themes.
- **Openings** – The openings key - Double-click an opening to go to the sub-lines or the games of that opening. If you are not familiar with the "ECO" openings index you can click *New* *Openings index* and choose a descriptive ("coarse") classification with well-known names like "Sicilian", "Pirc", "French Defence", etc.

Please note: many ChessBase data DVD`s have different, often more extensive and specialised games indexes.

Recent databases

Click *Menu File* and select "*Recent databases*" to get a dropdown list of the databases you last opened.



You can simply click an entry to jump to a recent database.

3.5.2 Preview window

Database window - Menu View - Database Browser

A preview window has been integrated into the database window.

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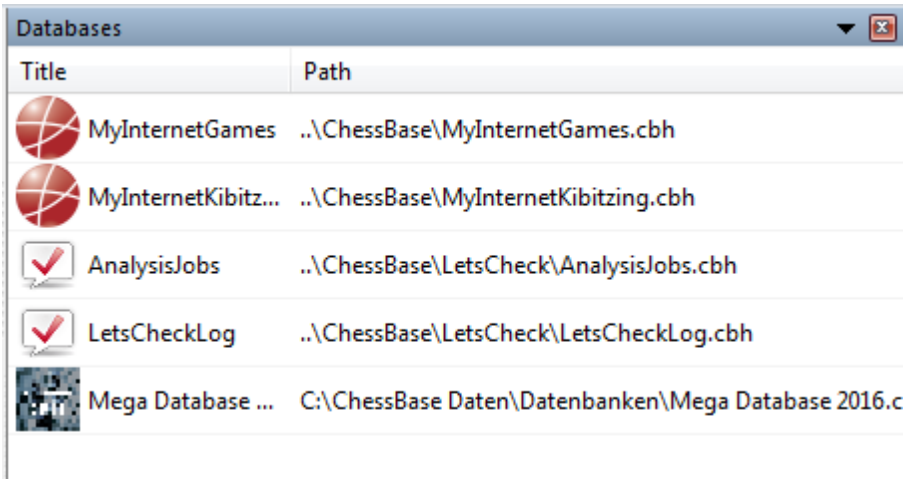

Databases are displayed that can be bought and downloaded from us.

The database can be activated with the menu *View - Database Browser*.

It is possible to change the format of the preview window by right clicking. The "Details" view is particularly informative. This shows for instance the place where the database is stored on the hard drive.

Clicking on a database symbol displays the game list in the left half of the database window. Double clicking on a game loads it into the board window.

Note: The browser only displays databases that have been stored in the default folder for databases.

This should be especially useful to help beginners handle databases.

Tip: If you want to display your own databases with the database browser copy them into the default folder. In the picture you can see that the databases have been copied into the folder /My Documents/ChessBase/Shop.

Now they can be directly accessed with the database browser.

3.5.3 Games list

The list window has a number of tabs at the top which take you to the different indexes for the games of the database.

The other indexes are all described in their own sections:

- Default Text
- Players index
- Tournament index
- Annotators index
- Source index
- Teams
- Game Title
- Openings key

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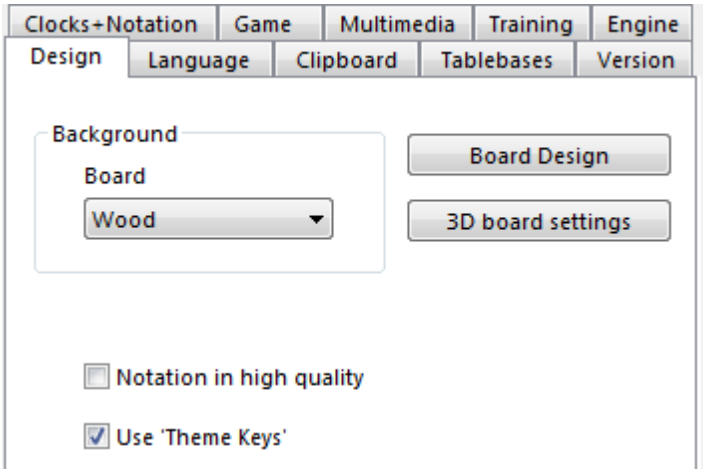
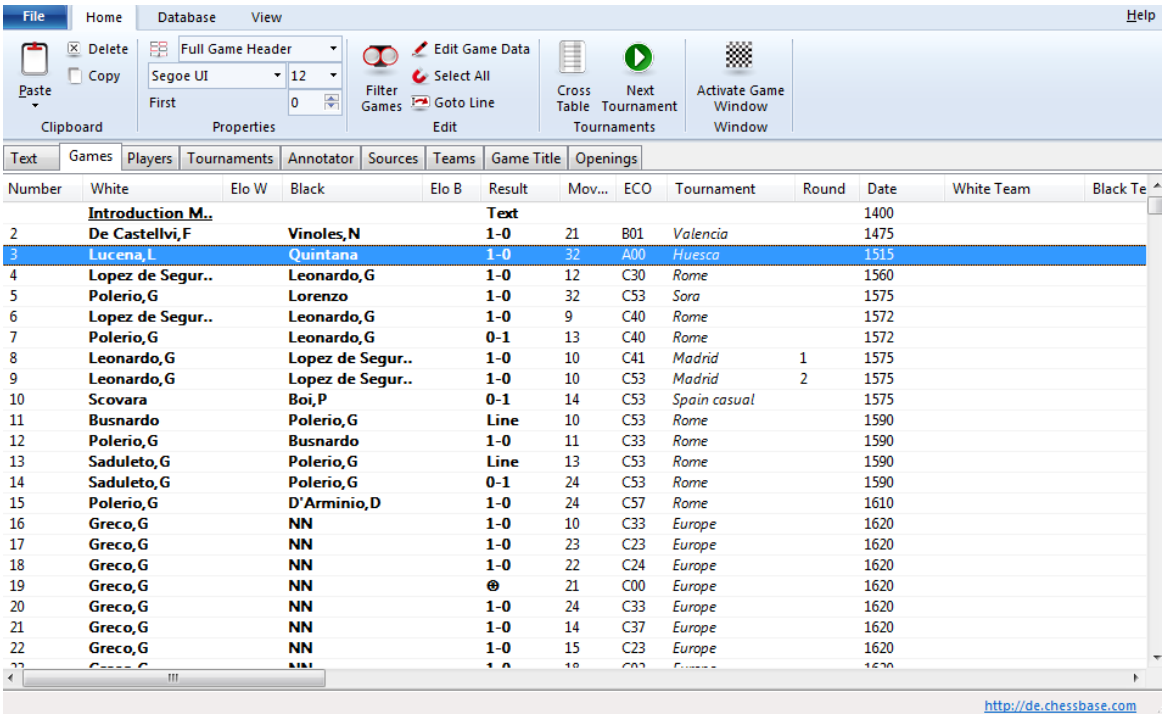
- Game Title A new Index.

Optional Theme keys for tactics, strategy, endgames and general themes.



Naturally the games list is the most frequently used window type in the Database window. You use it to browse a database, a search result, contents of an openings key, game of a player and so on. Please try to understand how to configure a games list, it will considerably increase the usability of the program for you. Other lists (players, tournaments) work the same.



Right clicking on the list window and selecting List *Format Columns All Columns* turns on the display of all the available columns for the list.

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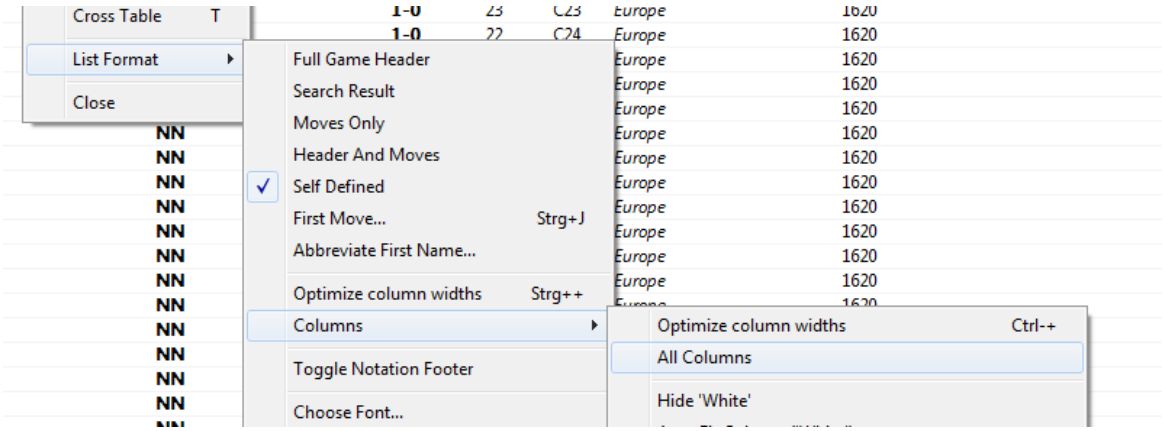
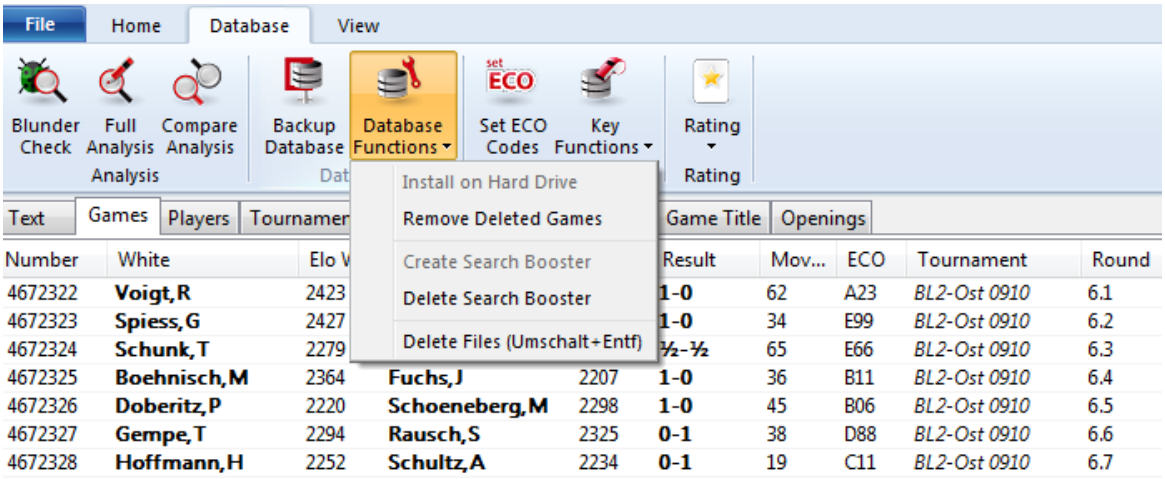
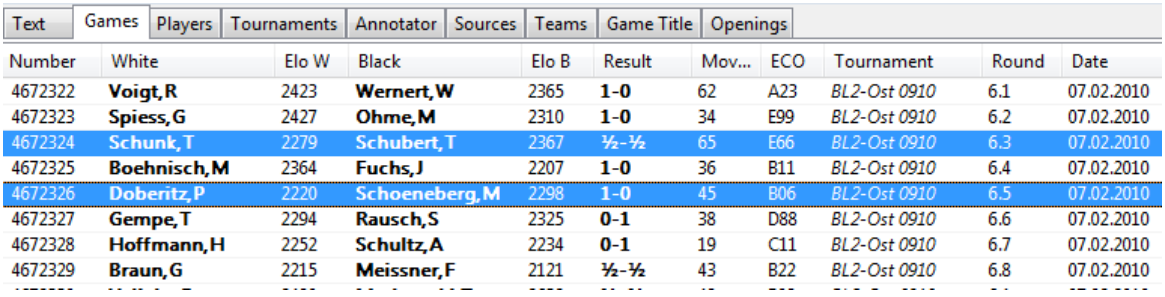


Above the list important functions to process the information in the list is available in Ribbons. This means that all the most important functions are available by simple mouse clicks.



In every list there is an extensive right click menu with functions that depend on whether one or several games have been selected.

Example Selecting games: Clicking two games while holding the shift key selects all the games that lie between them.



Clicking two games while holding the control key selects two individual games.

In the games list, you can see the game numbers, names of the players, their ratings

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(which may be left out if there is too little space in the list), the tournament, round and the annotator (in square brackets).

Behind this you will sometimes find "medals", a coloured band which helps to characterise the game.

The next columns give the ECO code, date, result and number of moves. On the right is a column that tells you what the game contains:

V = the game contains variations (alternate lines)
C = the game contains text commentary
A = it contains graphic annotations (coloured squares and arrows)
F = the game contains correspondence chess commentary
I = critical positions (special annotation) are marked in the game
T = the game contains training commentary
S = the game contains commentary symbols (!, !?, etc.)
G = another game is quoted in the notation
R = a "repertoire" game
M = the game contains multimedia elements (sound, pictures, videos)
P = the game starts from an entered position (studies, problems)

The above letters may also be small, if the variations, commentary, etc. are not extensive.

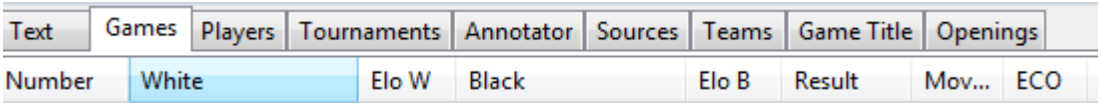
Source	VCS	P	Line Moves
EXT 2014	cs		
EXT 2014	vCs		12
EXT 2014	vCs		5
EXT 2014	Cs		
EXT 2014	c		
EXT 2014	vCs		4
EXT 2014	vCs		15
EXT 2014	vcs		7

For instance "**Vcs**" means a lot of variations, but relatively little text commentary and Symbol commentaries.

3.5.4 Sorting by columns

In all lists the entries can be sorted by clicking with the left mouse button on the column headers.

Clicking on a column header sorts the information in the column, and clicking a second time reverses the sort order.



Example: Clicking on **White** sorts the list alphabetically, and clicking a second time

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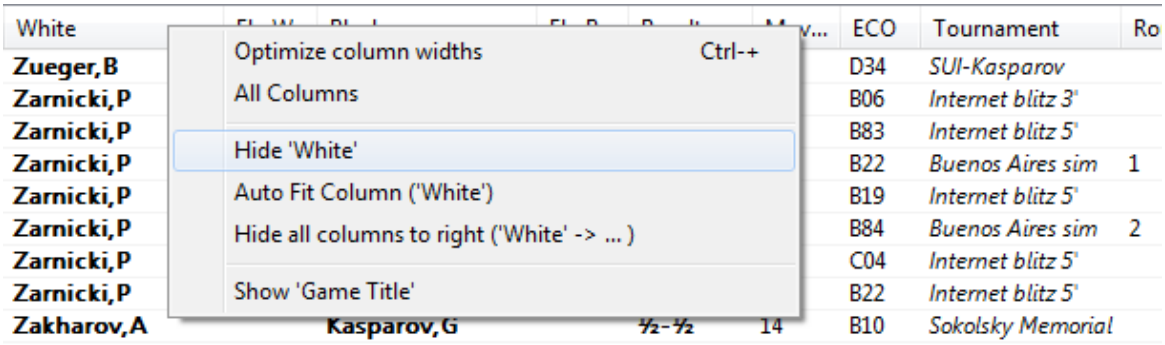
sorts the list in reverse alphabetical order.

Clicking on Elo W sorts the list with the strongest players first, and clicking a second time reverses the order.

Tip: Right clicking on the line with the column headers opens a context menu.



This makes it possible to select which columns should be displayed and which should be hidden.

The column separators in the title line can be moved with the mouse.

3.5.5 List views

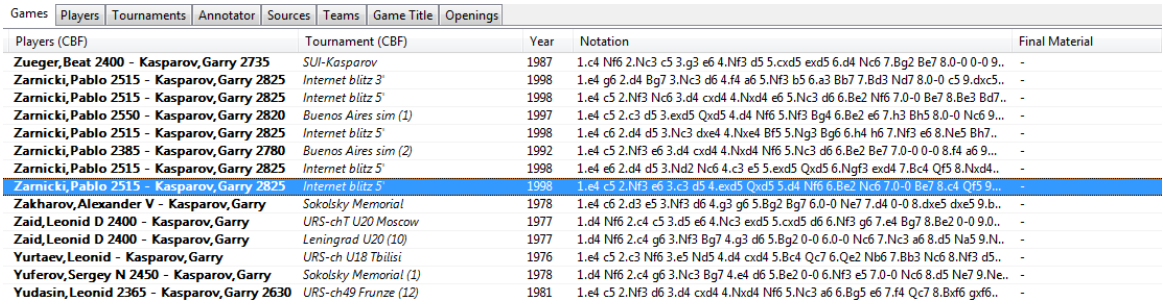
The information in the different lists (games list, player list, tournament index, commentators, etc) is sorted into columns.

The games list contains a list of the texts, games and game fragments, including (if available) the Player, Tournament, ECO Classification, Date, Result and Number of Moves.

Right clicking on List window – *List format* offers the option to configure the list window.

First select in the games list List format – Columns – All columns. Please note the possibility to access special information by simply sorting the columns.

The setting "*All columns*" greatly extends the information in the list. If you scroll right with the scrollbar at the bottom of the window you will find other options, such as the display of the game notation.



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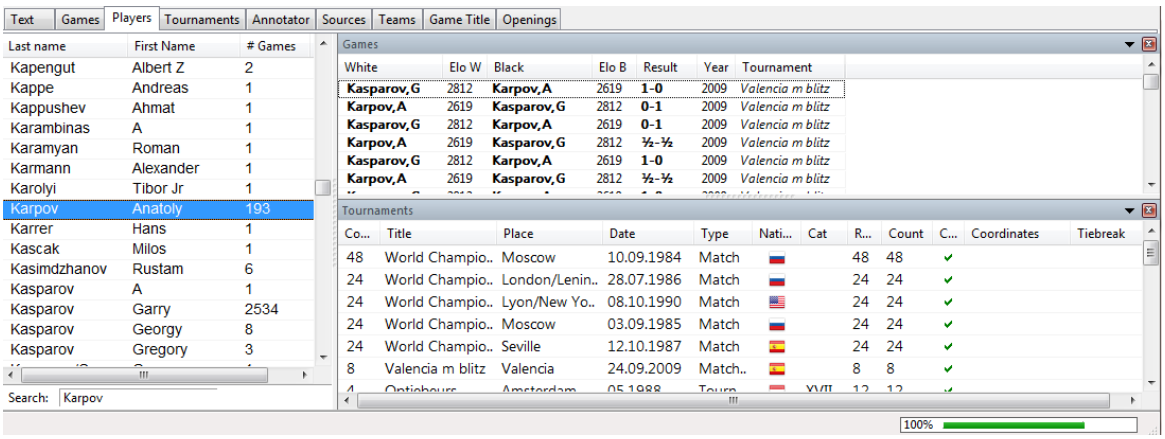
3.5.6 Player Index

If you click on the tab Players in the games list the **Player Index** is opened, the list of all players who are stored in the database.

The players index is sorted alphabetically.

You can use the Player Index to get an immediate overview of all the chess activities of the selected player. The Player Index is divided into three windows, which are also divided into columns to make it easier to refine the information. You can adapt the information in all three windows by turning individual columns on or off. Please refer to the notes in this documentation about sorting columns in list views.



In the left window there is a list of all the players who have played games in the current database. Clicking on the column header Name sorts the list alphabetically.

At the bottom of the window there is an input field. Enter the first letters of a player's name.

A player with this name is displayed. In this example above a player is displayed with the name "*Karpov Anatoly*".

Select the entry in the list view. In the games window all games are listed played by Anatoly Karpov, and in the tournament window all the tournaments are listed in which Anatoly Karpov took part. The lists can be adapted by sorting the columns to find the information you are looking for.

Tip: The input field also sorts player names that begin with small letters.

You can close the games list or tournaments list panes by right-click close. To reopen them, use menu *View*. You can rearrange the window panes in the usual fashion with the splitter bars.

If you select more than one game of a player in the Player Index, this dialog will allow you to edit the name in all games:

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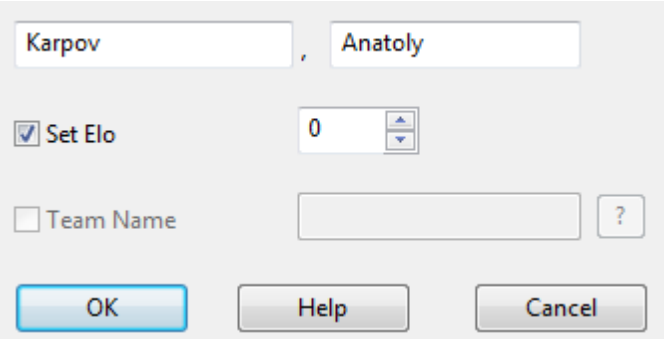
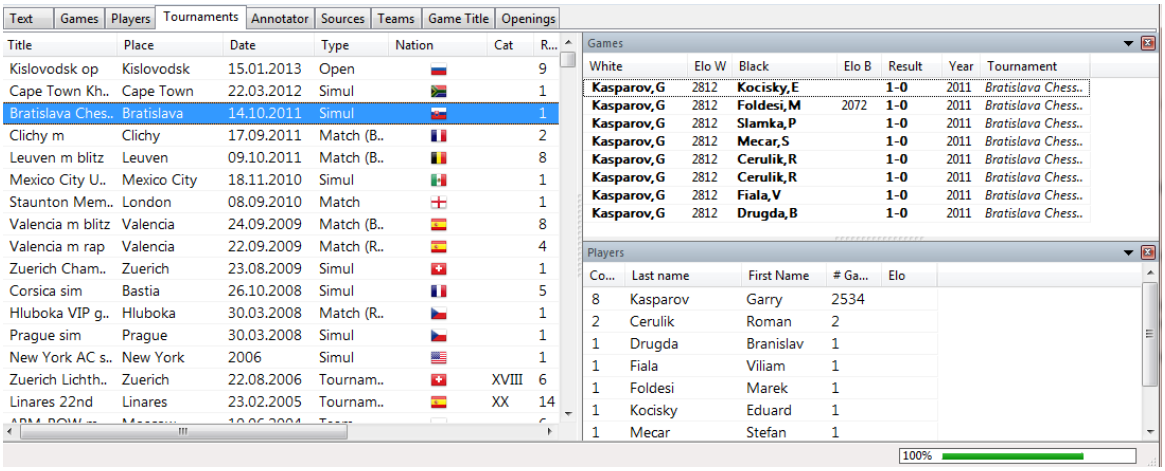
Rightclick Playername - Edit



3.5.7 Tournament index

Just like the player index, the tournament index is divided into three windows.



The information in the lists in the three windows is divided into columns. You can adapt the information in all three windows by turning individual columns on or off. Please refer to the notes in this documentation about sorting columns in list views.

In the left window there is a list of all the tournaments for which games are contained in the current database. Clicking on the column header Title sorts the list alphabetically according to the names of the tournaments.

In the games window on the right all the games in the selected tournament are listed. In the player window below it all the players who take part in the selected tournament are listed.

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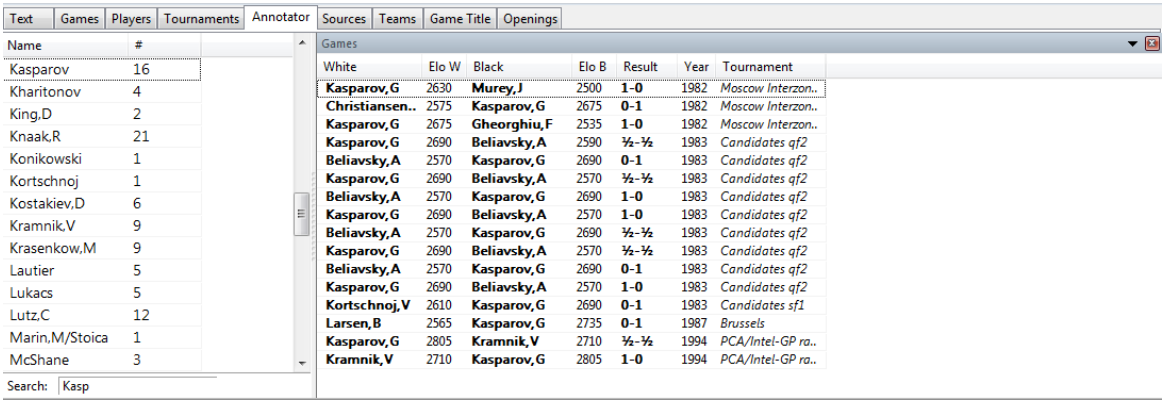
3.5.8 Commentator index

The commentator of a game is entered in the game data when a game is saved or replaced.

The name is contained on the second page of the Save dialog. If a game has not been commented this entry is left empty. If you add your own comments to a game which has no commentator the program automatically enters your name in the commentator field.

The display of the commentator index is divided into two halves.



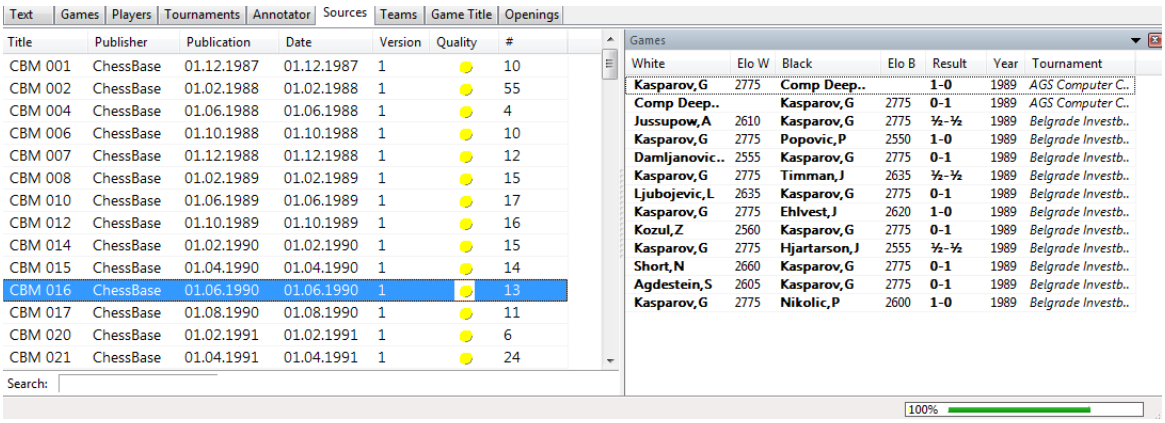
In the left window there is a list of the commentators including the number of games commented by each commentator.

Clicking on the column headers ***Name*** or **#** sorts the list.

Underneath the list there is an input field which can be used to quickly find a commentator.

3.5.9 Source Index

Every game can be marked with a source to state where it came from.



The source index contains a list of all the sources.

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This can be processed by sorting the columns in the same way as the player list and tournament index.

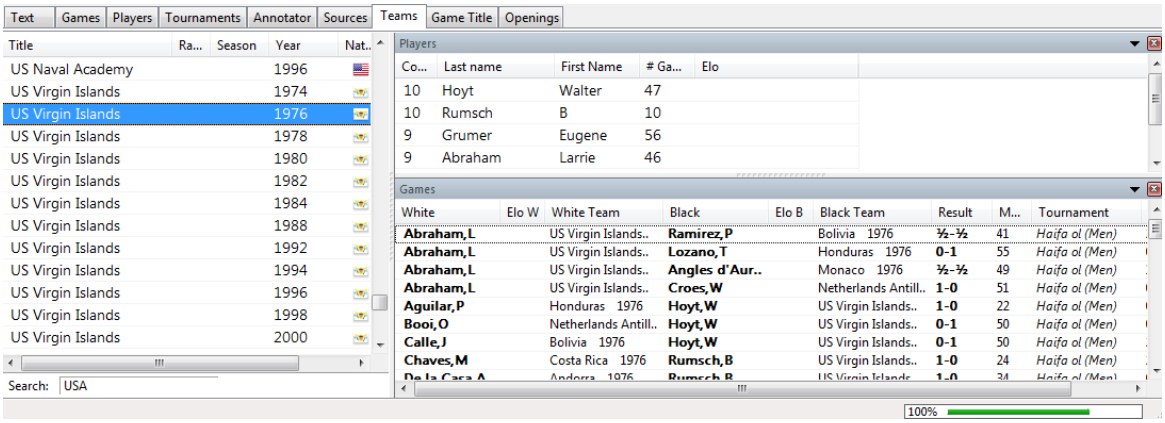
3.5.10 Team Index

This displays a list of the games that have been played by members of the listed teams.

When you are saving a game in a match between two teams you can enter the names of the teams on the second page of the Save dialog.

If all the team matches have the same tournament (e.g. "West Midlands"), the tournament index can generate a correct table of the teams.

The information in the team index is divided into three windows.



In the left window there is a list of all the teams contained in the database. The information in the list can be sorted by clicking on the column headers.

In the Player window on the right there is a list of the players in the selected team, and in the Games window below it there is a list of the games played by the teams.

There are ribbons to search and filter the information in the windows, in the same way as the player index and tournament index.

Full text search in the Tournament list is possible.

Rightclick Team - Edit starts the following dialog.

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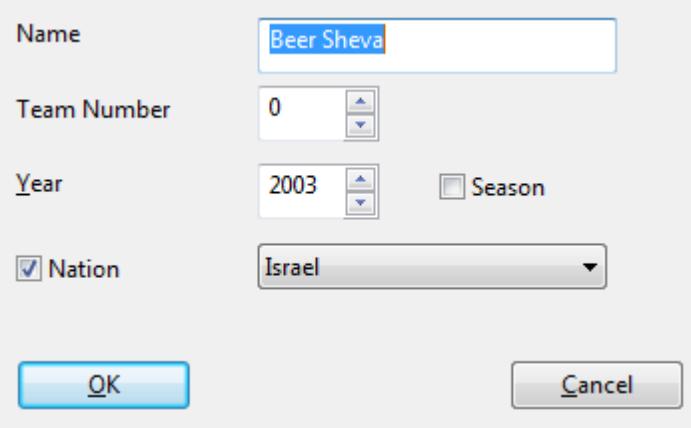
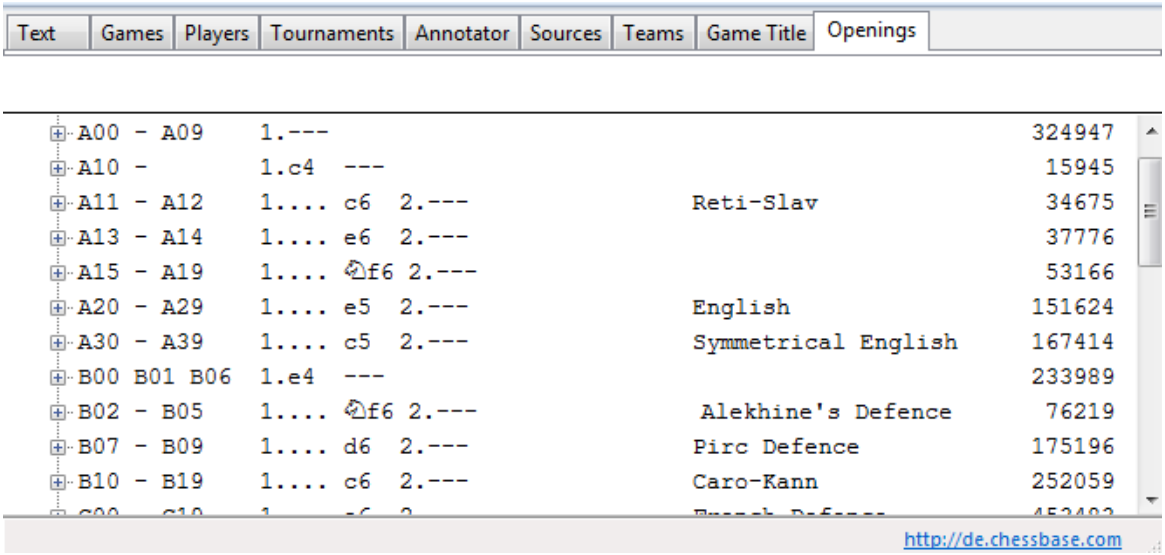


Now you can edit the single items in the List.

3.5.11 Openings Key

Openings classification in ChessBase/Fritz refers to the identification of the openings variation in the openings key.



The program plays through each game backwards and compares every position it encounters with all the positions contained in the classification positions of the openings key. As soon as a match is encountered it knows under which key it must classify the game. The reason for playing through the game backwards is that we are interested in the deepest position, i.e. the one that identifies the most detailed variation.

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3.5.12 Game Title

When a game is saved a description text can be added to it, dependent on the default language. The dialog has been extended to take this into account.

Under the "Game Title" the text and the language in which it is to be displayed are input.

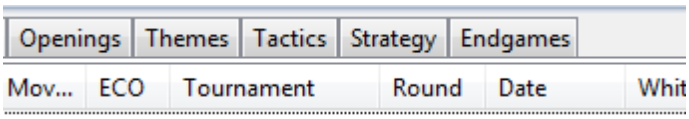
These texts can be used to quickly find certain types of games. The texts that you have created are listed in the game index and player index to reference games. These texts are displayed when you click on the button "Special Titles" in the menu Player - Games - Tournament Index. This gives you the possibility to freely classify games however you want without having to access them via the player names. This gives you another way to quickly access games of a specific type.

The new index is excellent for the easy classification and access of games which might be very difficult to filter with other options.

Setting Games Titles is possible with the ChessBase 13 software only!

3.5.13 Theme Keys

List Window - Themes/Tactics/Strategy/Endgames



Theme keys are only available optionally. You can enable them via *Menu File - Options - Design - Use Theme Keys*

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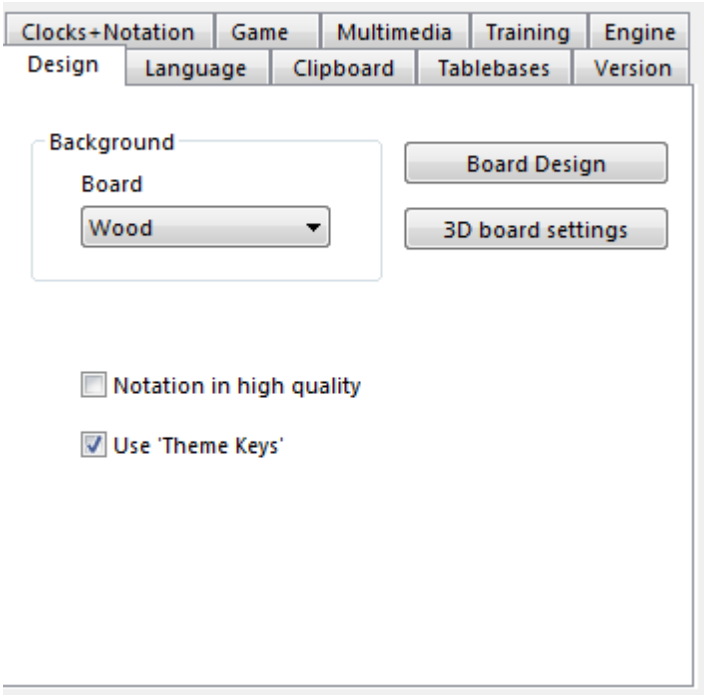

ChessBase has two main methods for accessing a database. On the one hand the search mask offers you a flexible method of searching by various criteria; on the other the keys (openings, players, etc.) give you a structured means of access which has the additional advantage of being virtually instantaneous.

The theme key of ChessBase combines both methods. A key is defined by the contents of the search mask, and this definition is permanently stored with the key.

The classification keys for themes, strategy, tactics and endgames can all be viewed by clicking tabs in the list window.

If you load a game from a theme key the program will jump to the position that led to the match (if that is possible).

3.5.14 Load and replay games

Menu File Database window

Opens the database window with a list of games. You can also open this from the main board by pressing F12 or Esc.

Menu File Open Database (or Ctrl-0)

Select the large database. This is on your Program DVD, but it can be installed on your hard disk.
Double-click a game in the list

In the list of games that appears, you can double-click a game, or single-click on it

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and press Enter. This takes you back to the main chessboard screen, with the game loaded in the notation window.

Replay the game with replay buttons

You can use the replay buttons at the top of the screen or below the chess board.

If the replay buttons are not visible, right-click the menu bar and select them.

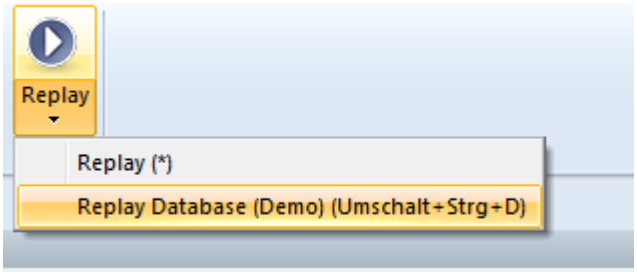
If there are no replay buttons beneath the board, right-click the board or area around it and select "Replay arrows below board".

Navigating games with the slider

The program has intuitive way to navigate games. The slider below the board can be dragged or clicked, as in a media player, to get to different parts of the game very quickly. This is especially useful in long, commented games. You can install the slider by using the menu right-clicking the board and using Board Design - Slider.

The takeback button in the middle has a special purpose: The program will not query what to do with a new move you enter but simply overwrite the old ones.

Analysis – Replay game



This will automatically play through the moves of the current game. You can adjust the speed in the control window that appears.

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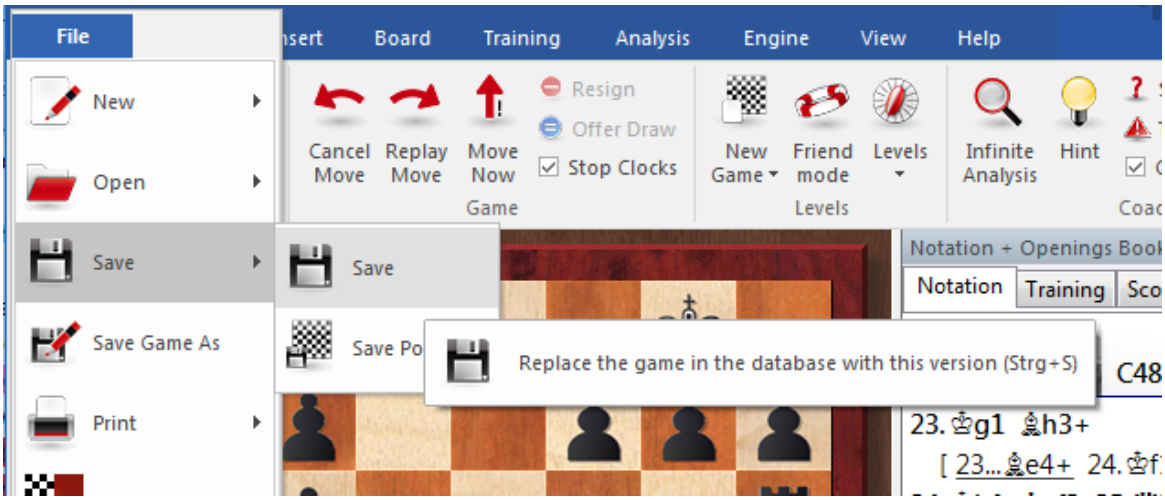
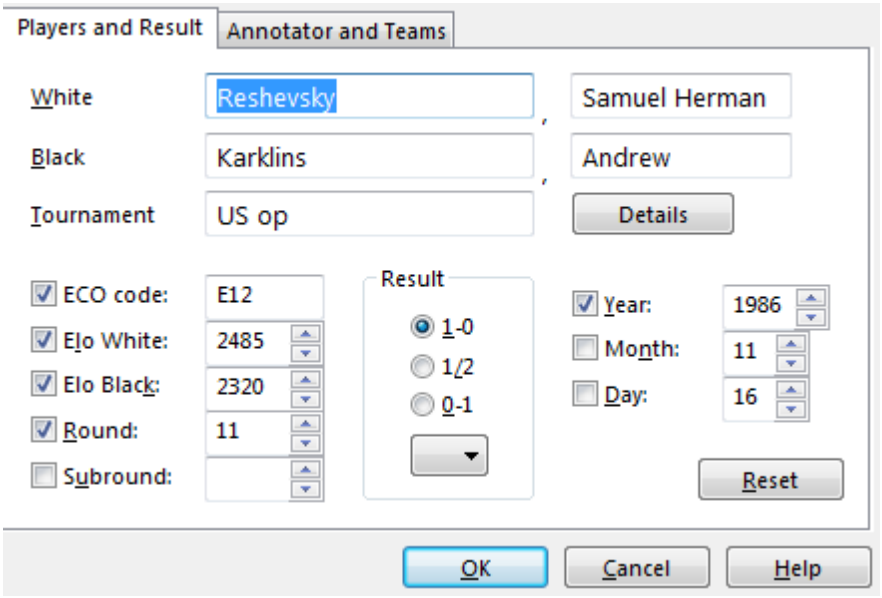
3.5.15 Save game

Menu File Save game (or Ctrl-S)



This will save a game in the currently open database.



You can also call up the Save dialog and enter all the game data in advance, i.e., before you actually save the game. Click *Edit* *Edit game data*. You can also edit the game data in the games list, without actually loading the game. Right-click it and select Edit – Edit game data (or press F2).

- **Players' names (White/Black)**

Type in the last name and first name(s) of the white and black players. You should try to use the standardized spellings, especially when entering the games of internationally known players. To facilitate the standardization of names you can use

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the players database which contains the names of over 100,000 players – practically everyone who has an international rating. Type in a name or part of it and then click the question mark button on the right. A list of names appears from which you can choose the correct one.

- **Tournament**

In the tournament line you normally enter the name and place of the tournament. If you want to do it properly you should click Details. A special dialog appears where you can add a number of other important details.

Title, Place: Type in the official name and place of the tournament. If the tournament has no name, (e.g., New York 1924) then enter the place in both lines. Only one will appear in the games list.

Date: The year, month and day are for the tournament, not the individual game (this is entered in the Save dialog). Usually the day of the opening ceremony or the first round defines the tournament date. If the exact date is not available, you can leave the month and day empty and the program will only store the year.

Complete: Select this item if you have all the games of a tournament. A tournament marked as complete will have the (green) check mark shown at the right in the tournament list.

Nation: Click the pull-down button on the right to produce a list of national abbreviations and select the one you want.

Rounds: Enter the number of rounds. In special tournaments, (like knockouts and Grand Prix) you can specify "subrounds" in the Save dialog. This allows the program to sort games properly according to rounds. It can also generate clean progress tables in open tournaments if the rounds are properly entered.

Category: Enter a category between 1 and 25. This is displayed in the tournament list.

Type: Specify match, tournament, Swiss, team, knockout, simul, etc. This too is displayed in the tournament list.

Time controls: Specify the speed of play (blitz, rapid, normal or correspondence chess).

- **ECO code**

The ECO code is automatically inserted by the program. You can correct it if you disagree with the program.

- **Elo ratings**

Enter the ratings for White and Black, if available.

- **Round, subround**

Specify the round and, in case of knockouts or Grand Prix, the subround.

- **Date (year, month, day)**

Here you specify the year, month and day on which the game was played. This is not to be confused with the tournament date. If the exact date is not available leave the day or month empty.

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- **Result**

Enter 1-0 (White won), ½-½ (draw) or 0-1 (Black won). If you haven't entered a complete game, i.e., if the moves merely represents analysis, then you may want to use an evaluation symbol instead of the result. By clicking the arrow in the result box, you get the menu shown on the right of evaluation symbols from which you can choose.

- **Reset**

This clears all data from the Save dialog.

Annotator and Teams

Click the Annotator and Teams tab at the top of the Save dialog to enter data in this form.

- **Annotator**

If you have entered variations and text annotations you should type in your name here. The program will automatically offer you the user name that is entered in the *Menu File* – Unser info.

- **White/Black teams**

If a game is part of a team championship, you should enter the names of the teams here.

- **Source**

You can give a source for the game. If you want to do so properly, you should click Details for a more extensive dialog box.

Note:

- Games cannot be stored in a database which is on a DVD. Remember to create a new database for your games, which you will probably not want to store at the end of a database of historic games.

- All games you play against the program are automatically stored in a file called autosave.cbh. You can always access this database and check games you may not have manually saved.

3.5.16 Saving games

"

In the program the procedure for saving and replacing games from existing game notations **has been changed and adapted to fit** in with the existing Windows standards.

In earlier versions of the program there was the option ***Replace*** . Using it meant that the notation for a game which was pre-existing and had been changed in the board window (e.g. by the insertion of variations or annotations) was over-written with the altered version when being saved into the database.

The option "Save" meant that the relevant game was always added the end of the database.

In all recent Windows programs, e.g. word processing or graphics applications, the standard way of doing things is that the altered version is saved at the same place.

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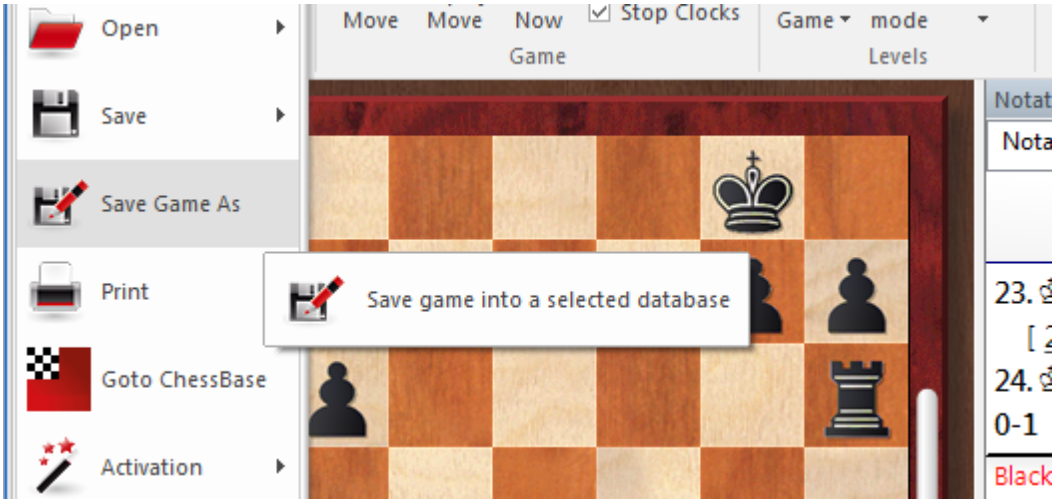
"

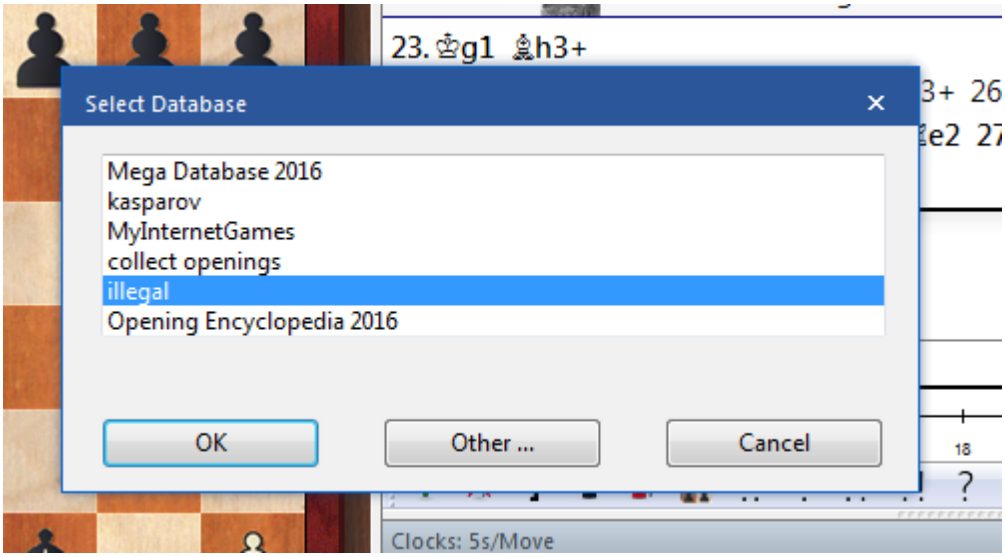
So the extended notation is no longer replaced, but saved. Whenever you want to save the altered game notation as a new file, you do that via ***Save as new game*** .



Precisely this way of doing things is now being implemented in our chess programs too.

If in the file menu you select the function "*Save game as*" then the notation can be saved into any database you wish. At this point the program offers a further improvement over previous versions of the program.

A dialog box appears with recently used databases with which you can directly choose a database into which to save the game.



Should the desired database not be on the list, then a click on the entry ***Other*** will take you there.

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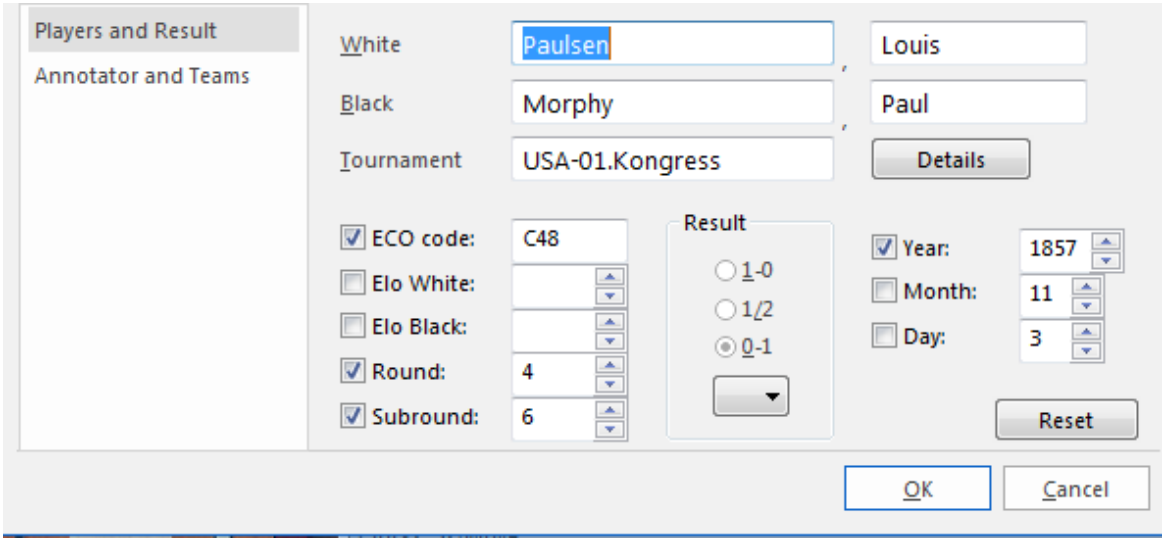
It starts the file selection dialog of Windows and you can use that to navigate to the folder and the database into which the game is to be saved.

The in the dialog box for game data you can enter the relevant information for the game.



Tip: The name of the destination database is displayed in the header of the dialog box.

So, if you wish to add new commentary (e.g. a diagram) to an existing game and to save that at the same location within the database, choose the option *Save* .

The second situation which could occur is that the user might want to add new comments and variations to a game which has already been saved and to overwrite / replace the original with this new version.

There is, however, a faster way than going through the file menu, namely with the key combination **Ctrl-S**. This procedure corresponds to Replace in earlier versions of the program. Both in mouseover and in the title line of the displayed save dialog you are referred to the "Replace" function and the relevant database.

In the file menu choose *Save* *Save*.

To sum up
Whenever you edit and modify a game, *Menu File* *Save* *Save* (Key combination Ctrl-S) has the effect that the game notation/list entry is replaced.
Therefore the shortcut Ctrl-R used until now for replacing a game no longer exists or works.

In order to save a game at the end of the games list as a new entry you have to use the following procedure: -> ***Menu File*** ***Save game as***".

Note
To help with a better understanding of the new function involving saving, let us look

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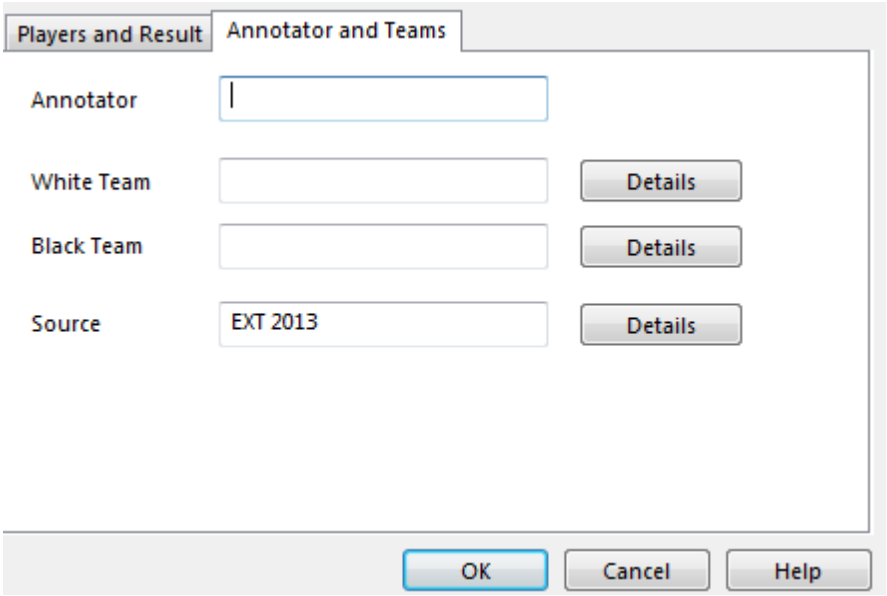
at another practical example. Say a user loads a position he has already saved and modifies this by means of Position Setup. He would now like to replace the existing game entry/position. That will not work, because after the modification the link to the position he loaded no longer exists. Thus a new game has been generated which has no counterpart within the database. In this example, no replacement is possible!
If the user loads the new game/position and changes only the specifications, the original game can be replaced.

3.5.17 Save Mask Annotators/Team

You reach the second page of the save mask by clicking the Annotator and Teams tab.



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Annotator
If you have entered variations and text annotations you should type in your name here. ChessBase will automatically offer you the user name that is entered in the menu Tools – Options – User. A list of all annotators appears in the annotators index of a database.

White/Black teams
If a game is part of a team championship you should enter the names of the teams here. They are displayed in the teams index of the database.

Source
You can give a source for the game. If you want to do so properly you should click Details for the source edit dialog. The source is given in the source index of the database.

3.5.18 Copying Games

We're going to look at how to copy games from one database to another. It works very much like the process of copying files in Windows Explorer or copying text in a word processor.

There are two terms we' ll use in this description:

Source database -- the database you're copying games from
Target database -- the database you're copying games to

Your first step is to go to the game list window (shortcut: F12 on your keyboard).

Open the source database *Menu File - Menu/Open/Database*.

Highlight the games you want to copy; there are a number of ways to do this. You can hold down the CTRL key on your keyboard and single-click on the individual games you'd like to copy. If the games are in a "block" (that is, adjacent to each other in the database), you can hold down the SHIFT key and use the down cursor (down arrow)

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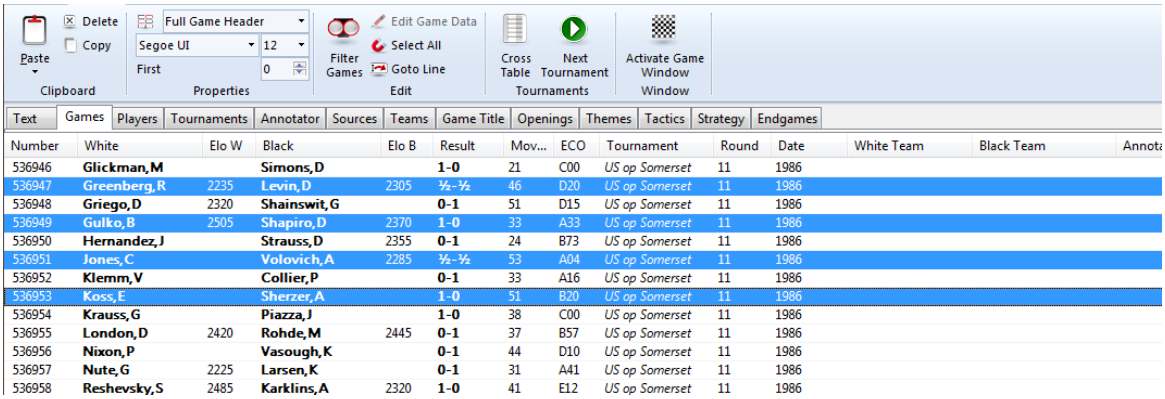
key to highlight them after single-clicking on the first game in the "block".

But if you want to copy all of the games in a database, you can use a menu item or keyboard command to highlight the whole shebang. Go to the Edit menu and choose "Select all", or else you can use CTRL-A on your keyboard. All of the games in the game list will then be highlighted.



Number	White	Elo W	Black	Elo B	Result	Mov...	ECO	Tournament	Round	Date	White Team	Black Team	Annot
536946	Glickman,M		Simons,D		1-0	21	C00	US op Somerset	11	1986			
536947	Greenberg,R	2235	Levin,D	2305	½-½	46	D20	US op Somerset	11	1986			
536948	Griego,D	2320	Shainswit,G		0-1	51	D15	US op Somerset	11	1986			
536949	Gulko,B	2505	Shapiro,D	2370	1-0	33	A33	US op Somerset	11	1986			
536950	Hernandez,J		Strauss,D	2355	0-1	24	B73	US op Somerset	11	1986			
536951	Jones,C		Volovich,A	2285	½-½	53	A04	US op Somerset	11	1986			
536952	Klemm,V		Collier,P		0-1	33	A16	US op Somerset	11	1986			
536953	Koss,E		Sherzer,A		1-0	51	B20	US op Somerset	11	1986			
536954	Krauss,G		Piazza,J		1-0	38	C00	US op Somerset	11	1986			
536955	London,D	2420	Rohde,M	2445	0-1	37	B57	US op Somerset	11	1986			
536956	Nixon,P		Vasough,K		0-1	44	D10	US op Somerset	11	1986			
536957	Nute,G	2225	Larsen,K		0-1	31	A41	US op Somerset	11	1986			
536958	Reshevsky,S	2485	Karklins,A	2320	1-0	41	E12	US op Somerset	11	1986			

Once you've highlighted the games you want to copy, go to the Home menu and select "Copy" (or else hit CTRL-C on your keyboard). It'll look like nothing happened, but what you've just done is tell the program that you want to copy the highlighted games.

Next you'll open the target database (again, *Menu File - Open/Database*). You then go to the Edit menu and select "Paste" (or hit CTRL-V on your keyboard).

There is a confirmation dialogue, asking you to confirm that you do indeed want to copy the games.

Click the "OK" button. The games are copied and your newly copied games will appear at the end of the target database.

3.5.19 Players database

The players database is a huge catalog of over 100,000 players and tens of thousands of pictures. Practically every player who has an international rating is in this "encyclopedia".

The players database is part of the ChessBase database program. If you own this, you can use it to help you standardise names when you are saving a game. You can type in the name or part of it, and then let the program present a list of names from which you can choose the correct one.

The program access the Online Player Database shows pictures of the Players in the Notation window!

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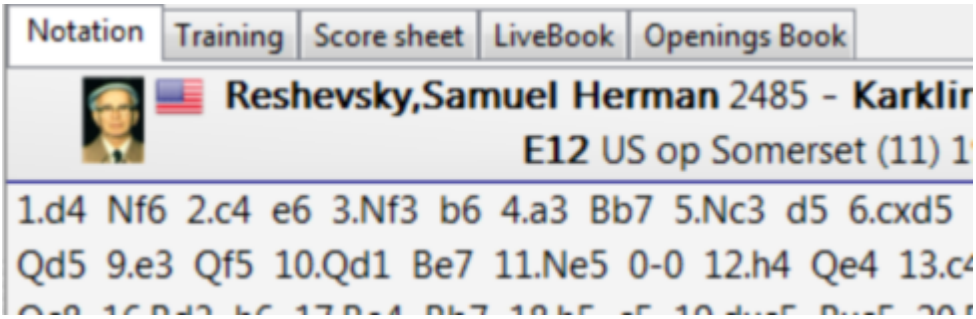
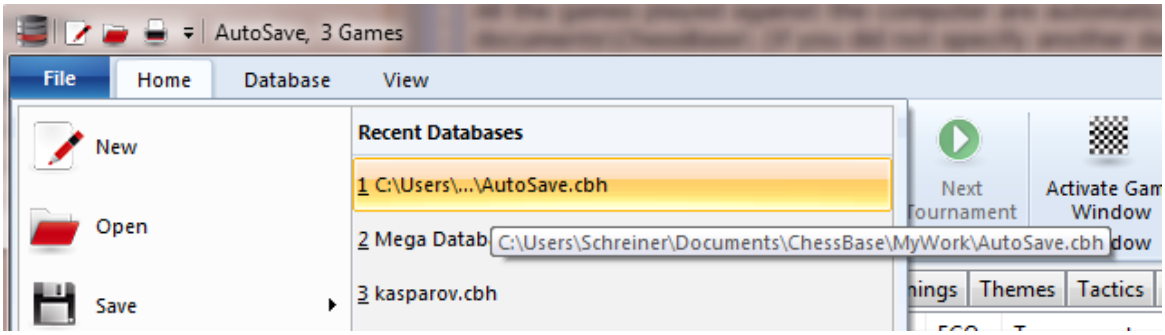


3.5.20 Autosave database

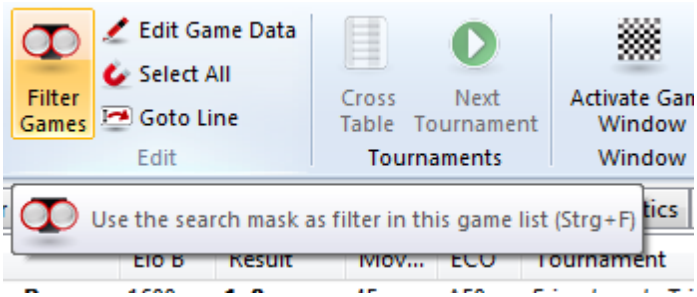
All the games played against the computer are automatically saved in a special "autosave" database. This is physically located in the directory c:\[user]\My documents\ChessBase\ (if you did not specify another database during installation).

The autosave database is always present in the history list at the top of the database window.



3.5.21 Search for games

Database Window - Home - Filter games (or Ctrl-F)



Produces a "search mask" in which you can tell the program to look for particular games.

- Search for names, tournament, year, etc.
- Search for game commentary
- Search for positions or position fragments
- Search for medals

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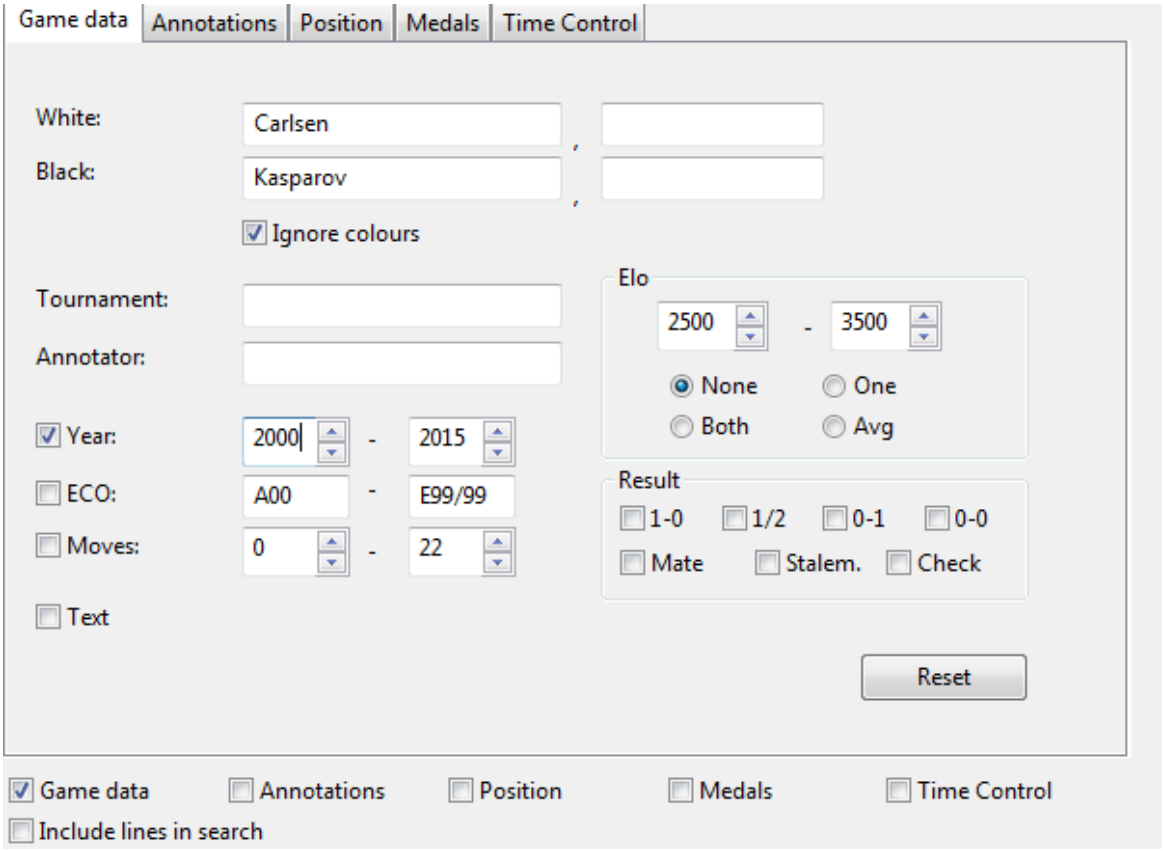
Note: In the database window, pressing the Tab key will switch the search filter on and off.

3.5.22 Search for names, tournaments, etc.

Database window Filter games (or Ctrl-F)

Produces a "search mask" in which you can tell the program to look for particular games. By clicking on the tabs at the top of the search mask, you can define all kinds of different categories.



- **White/Black:** Enter the name or part of it ("kasp" is sufficient to find Kasparov's games). You can use wildcards: "*asparov" will get you all Kasparov's games as well. The search is case sensitive, but typing a small letter at the beginning will work, since it is automatically changed into a capital.

- **Ignore colours:** If you enter the name of one player and click this on then all his games will be shown. If "Ignore colours" is off, then only his white or black games are listed. With two players clicking "Ignore colours" on will give you all games of both players against each other, while clicking it off will only retrieve the ones in which the first player had white and the second black.

- **Tournament, Annotator:** Here you can search for specific tournaments or games with commentary by certain annotators. The search is case sensitive.

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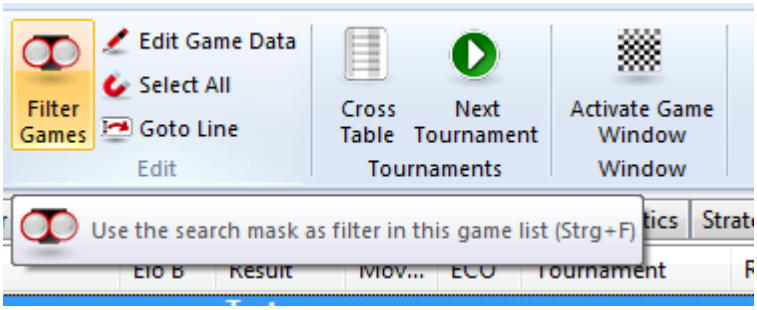
- **Year:** To search for the games of a particular period, enter the years here.
- You can search for the games from a particular ECO key, e.g., "C43" – "C45".
- **Moves:** You can search for long and short games here.
- **Text:** retrieves database texts. These are not games but text reports which may contain pictures, videos, positions and links to games, keys, other texts, etc.
- **Elo:** When searching for the games of players who lie within a certain Elo range, you can specify whether one player, both players or the average should lie within the given range.
- **Result:** retrieves games in which White won, Black won or which were drawn, and games that ended in mate, stalemate or a check.

It is possible to search in a database for games with no result. Clicking the box **0-0** makes the program search the database for games which have been listed in the database with no result.

3.5.23 Search for positional fragments

Database Window - Filter games (or Ctrl-F)



Produces a "search mask". Click "Position" to look for games which contain specific positions or positional fragments.

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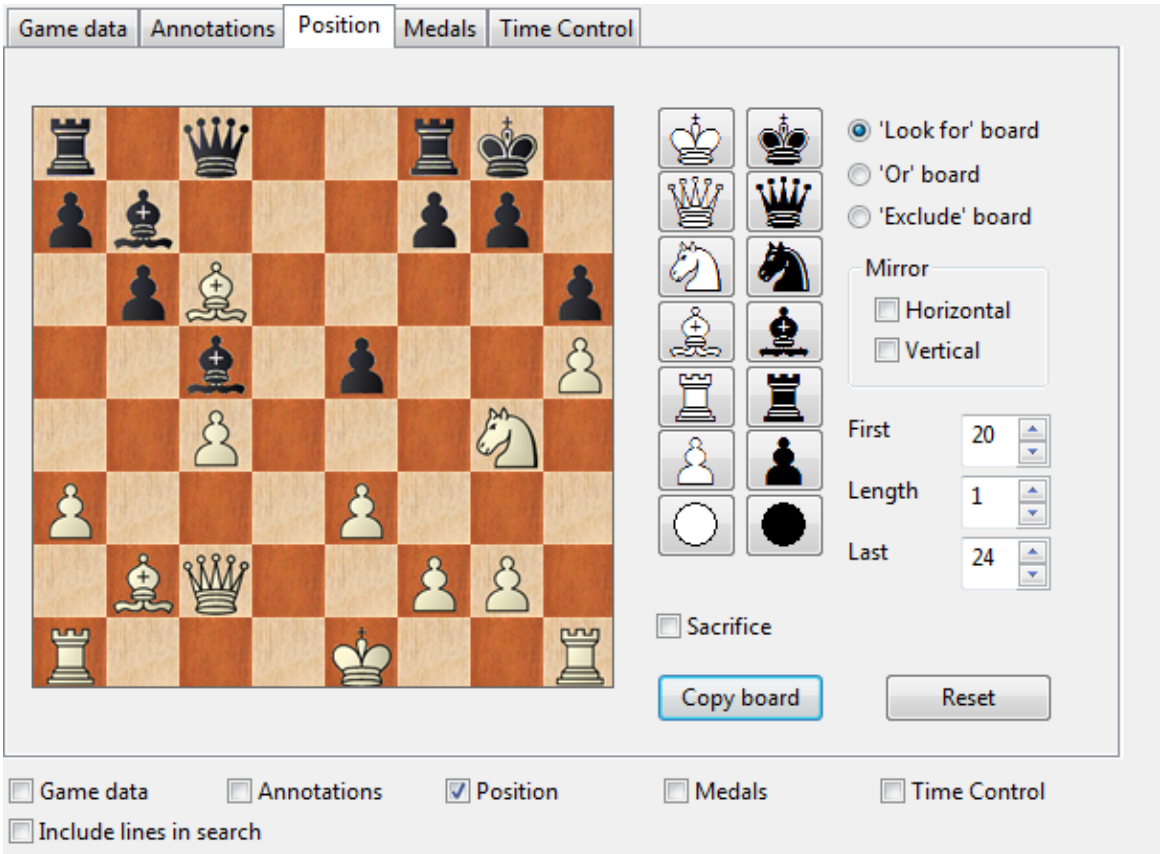

To deposit pieces on the board, click a piece type on the right and then a square on the board. Clicking with the right mouse button deposits a piece of the opposite colour. The two "jokers" at the bottom can be used to indicate that any piece of that colour should be present.

In the above example, the program will retrieve all games in which White executed a bishop sacrifice on h7 or Black on h2. Note that when you load one of the retrieved games the program will jump straight to the position in which the sacrifice occurred.

- **Look for, Exclude and Or boards:** You can enter different pieces for each of these. In the first case the program will look for the positional fragment. In the second it will make sure the positional fragment did not occur in the games it retrieves. On this board you can enter multiple pieces per square. On the "Or board" you can enter a second position the program should look for simultaneously.

- **Mirror:** horizontal/vertical: Rotate the boards horizontally or vertically and simultaneously search for the same fragment at the top or bottom (e.g., find bishop sacrifices on h7 or h2), or on the left and right.

- **First, length, last:** Restricts the search to a specific phase of the game. In the above case, the program will start looking from move five of the game and stop at move 40. The position must occur for one move (length).

- **Copy board:** Transfers the current position on the main board to the "Look for" board. You can modify it before you start the search.

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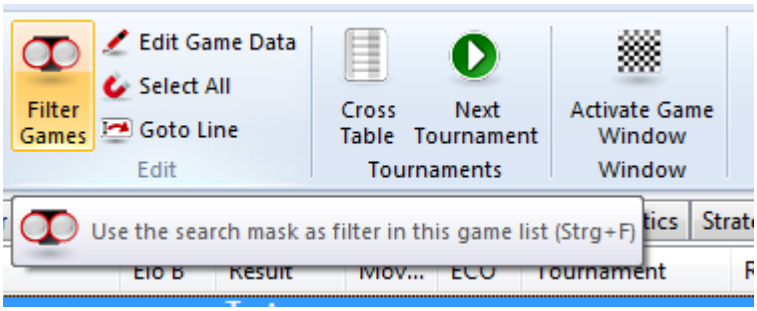
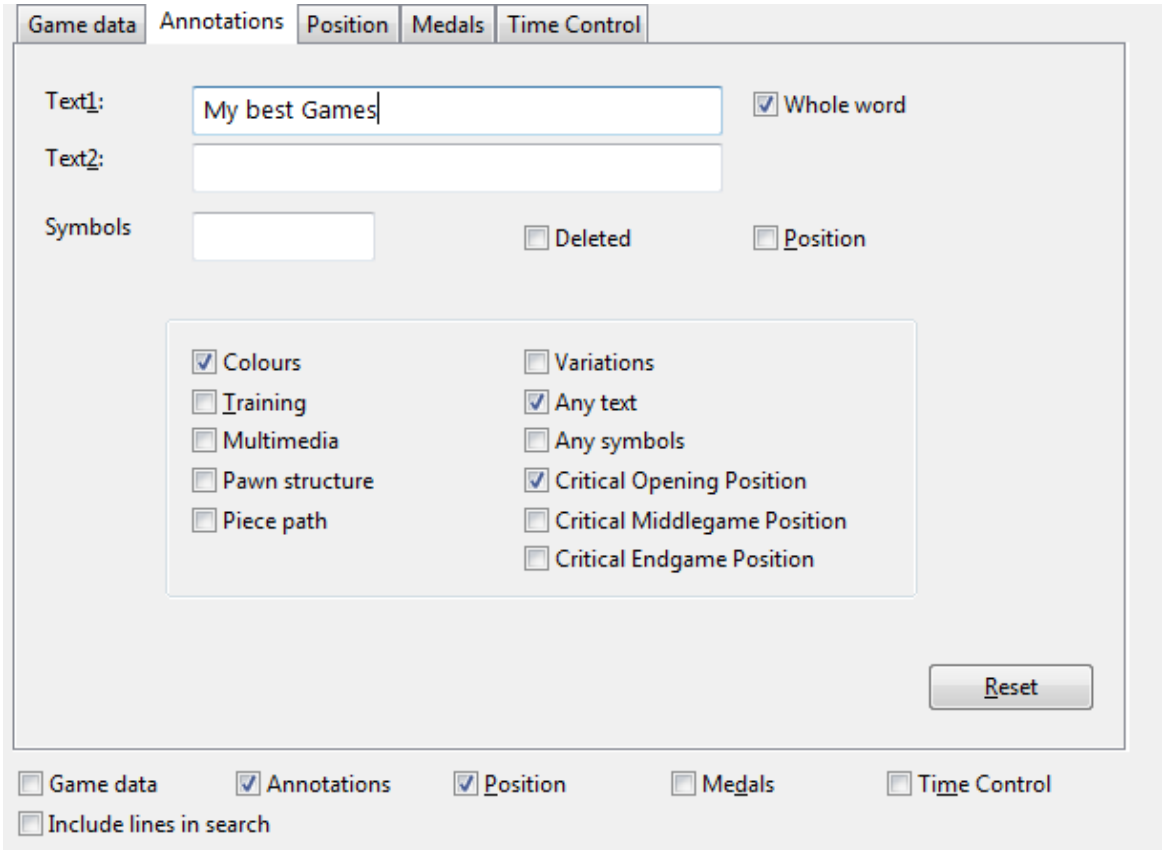
3.5.24 Search for game commentary

Database Window - Home



Games can contain text commentary, which is generated by the program or which you can type in yourself. Apart from that, the games of ChessBase Magazine are extensively annotated with text, chess commentary symbols and graphic elements.



Menu: View Filter games (or Ctrl-F)
Use this command to open the Filter Games dialog. Click the "Annotations" tab to search for game commentary.

- **Text1, Text2:** Enter two text strings and the program will search for all games in

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which either occurred.

- **Whole word:** Check this to search for an exact match only. In the example on the right, the program will not find "brilliantly".

- **Symbols:** Enter commentary symbols like "!" and !?".

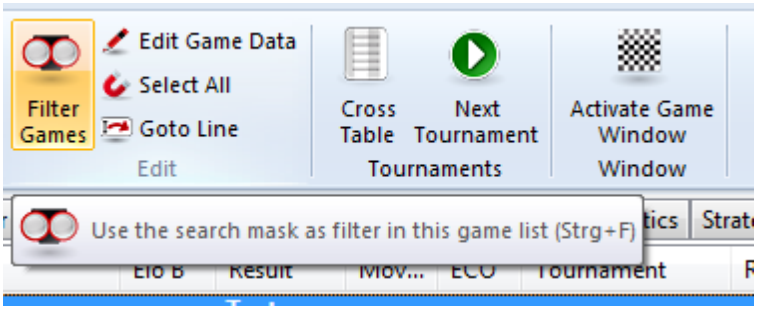
- **Deleted:** Check to retrieve deleted games.

- **Position:** List games that start from a special position (e.g., problems and studies).

You can also search for games that contain variations, training positions, multimedia, coloured squares and arrows ("Colors"), marks for pawn structure, piece paths, critical positions, etc.

3.5.25 Search for medals

Database Window - Filter games (or Ctrl-F)



Use this command to open the Filter Games dialog. Click the "Medals" tab to search to search for games which were marked as being especially interesting. The medals include categories such as novelty, pawn structure, attack, defence, sacrifice, blunders, etc.

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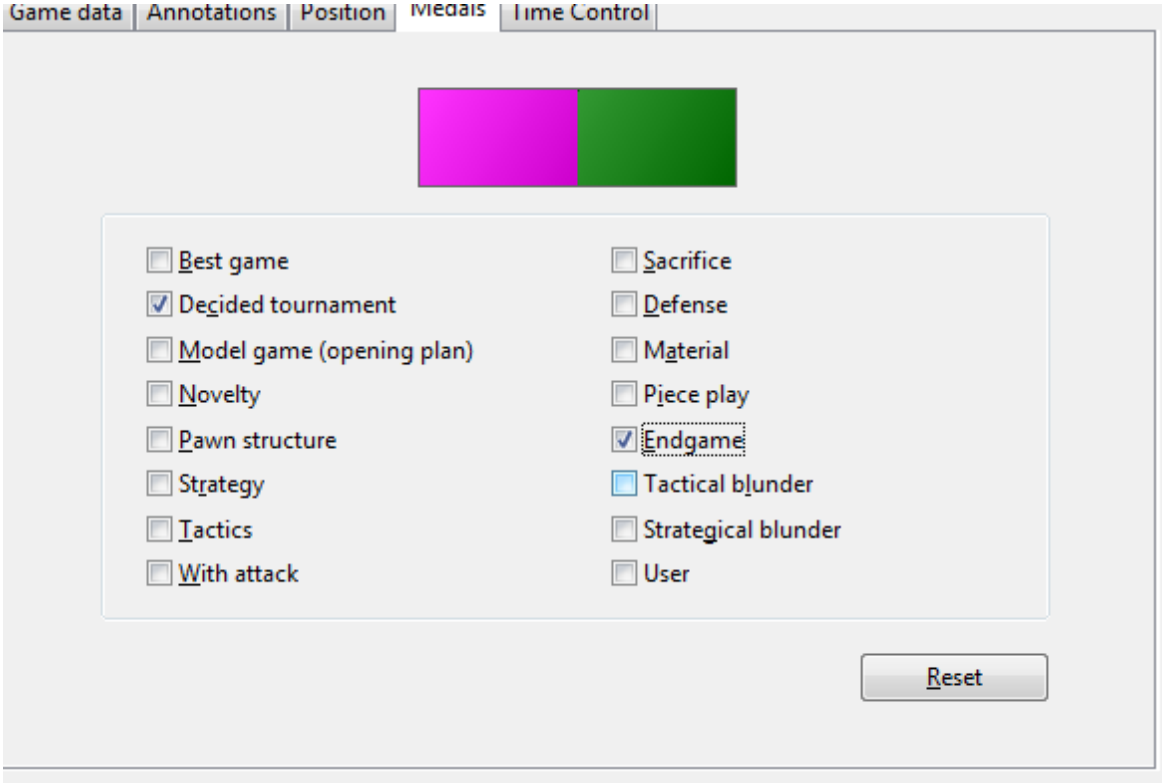

You can search on multiple categories. Note that the program will retrieve games in all marked categories.

3.5.26 Search for Time Controls

Database Window - Home (or Ctrl-F)

This is useful for games played on the chess server, in engine matches or tournaments.

Note: You find the database with your games from playchess.com in "My Documents\ChessBase\MyInternetGames.cbh".

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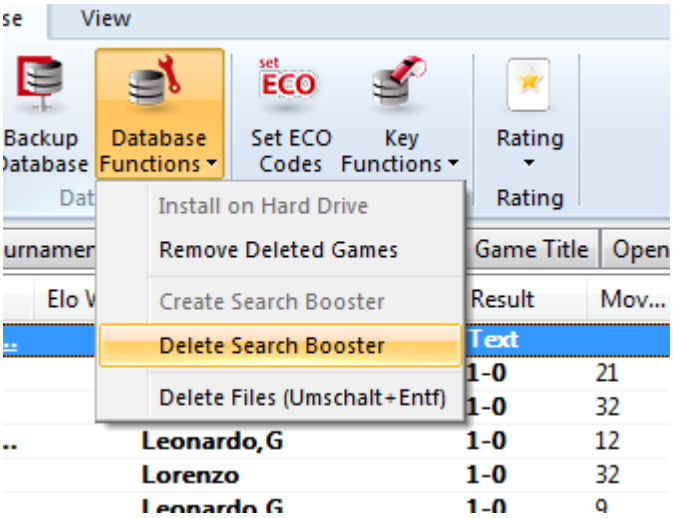
Click *Blitz* to search for Blitz games and enter a range for the base time and the Fischer offset per move.

If you choose *Tournament*, enter the time in minutes for the first time control and leave Gain unchecked.

3.5.27 Search booster

Database Window - Database Create/Delete search booster (in the database window)



The search booster consists of a pair of additional files attached to a database. They consume about 50 bytes per game (so they can be fairly large). But it speeds up the search for specific games and positions considerably. The booster files have the ending .CBB and CBO and can be deleted from your hard disk if no longer required.

The program will offer to create a search booster for a large database which doesn't have one. You can also use this command to delete the booster files.

3.5.28 Find position

Analysis Find position

This is a very powerful function that retrieves all games from the currently open database in which the board position occurred.

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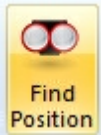
If you double-click one of the games, it will be loaded on the main board for replay. Make sure you have saved your original game, because it would otherwise be lost. You can use F10 to load one game after another and study the continuation.

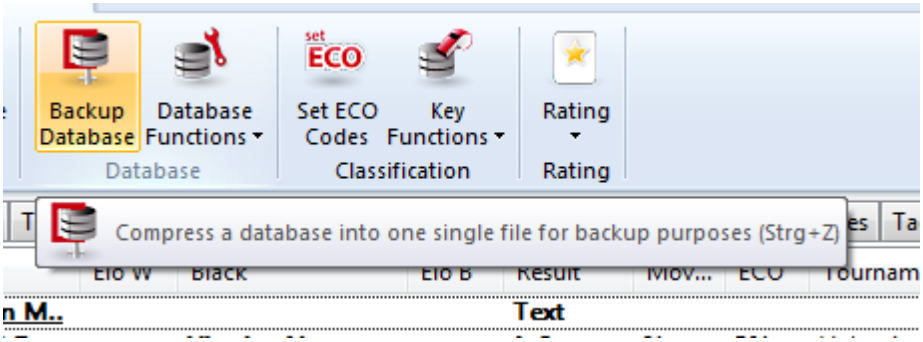


The speed of the search can be increased considerably by creating a search booster. The database you get on your program DVD already has a search booster, so you don't need to do anything there.

3.5.29 Archive database

Database Window - Database Backup Database (or Ctrl-Z)

Click this in the database window. All files that make up the current database will be compressed into a single "archive file" (with the ending .cbv).



All ChessBase programs can open and unpack these archive files into a normal database.

Archive files are compressed and can be sent as a single file by email. They are also the best way to publish games on the Internet.

3.5.30 Install on Harddrive

Database Window - Database Functions Install on Harddrive

This program comes with a collection of high quality games, which are located in the directory \DATABASE on the DVD. If you want to add games to this database, or simply to access it faster, you should copy it onto your hard disk.

In the database window click *Database Functions Install on Harddrive*.

The program will ask you for a directory and then copy all necessary files into it.

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3.5.31 Backup database

Any database in ChessBase format actually consists of multiple files.

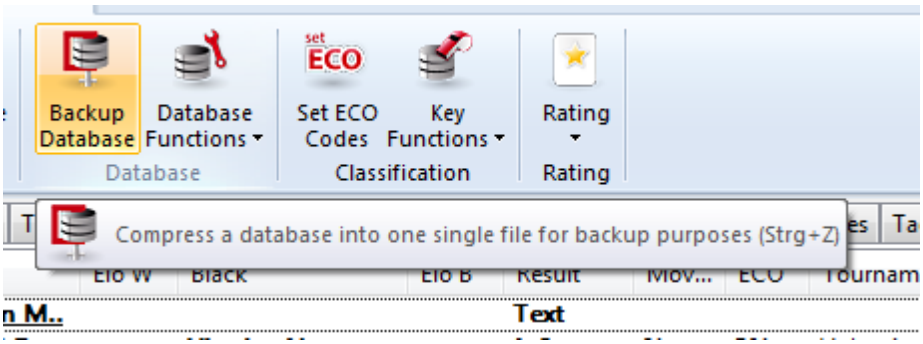
When you create a database in .CBH format, you'll notice that the program (ChessBase, Fritz, or one of the other playing programs) will ask you to name the .CBH file. This does not indicate that the whole database is stored in just that one file!

The .CBH file stores just the header information from the games in the database; the annotations are stored in another file, the moves in yet another, each key is kept in its own file, etc.

What this means is that when you make a backup of a ChessBase/Fritz database, you need to backup all the files that make up the database. A ChessBase/Fritz database in .CBH format is composed of a minimum of seven and as many as twenty separate files. If you backup or save just the .CBH file and try to open it later, you'll get nothing - the additional files are required.

But ChessBase and the various playing programs we offer give you the option of bundling all of these files together into one unified archive file. This file ends in the extension .CBV and is an archive that stores the multiple database files into a single compressed file. This allows for easier copying to a storage medium (such as a CD or DVD) since you'll only need to copy one file instead of seven to twenty of them.

In the playing programs, such as Fritz, you first go to the database window, where you'll see the list of games for the current database. To archive it, go to Database Window and select "*Database - Backup Database*".



The function jumps you right to the Windows file select dialogue.

Here again it's best to create the .CBV file in a different folder.

Once the multiple database files have been compressed into the single .CBV file, you can copy that archive file onto a floppy, CD,DVD, ZIP disk, or tape backup or any external storage medium. If your original database (which is still in its original location, by the way -- nothing happens to it just because you made an archive copy) gets corrupted or accidentally deleted, you now have a replacement copy.

Make frequent backups. This is very important and applies to more than just your chess databases. Any important stuff that you've written or created should be backed up. And, as a personal recommendation, having a rewritable CD drive is very handy for this if your PC doesn't already have one. Also, you can forget about using CD-RW disks

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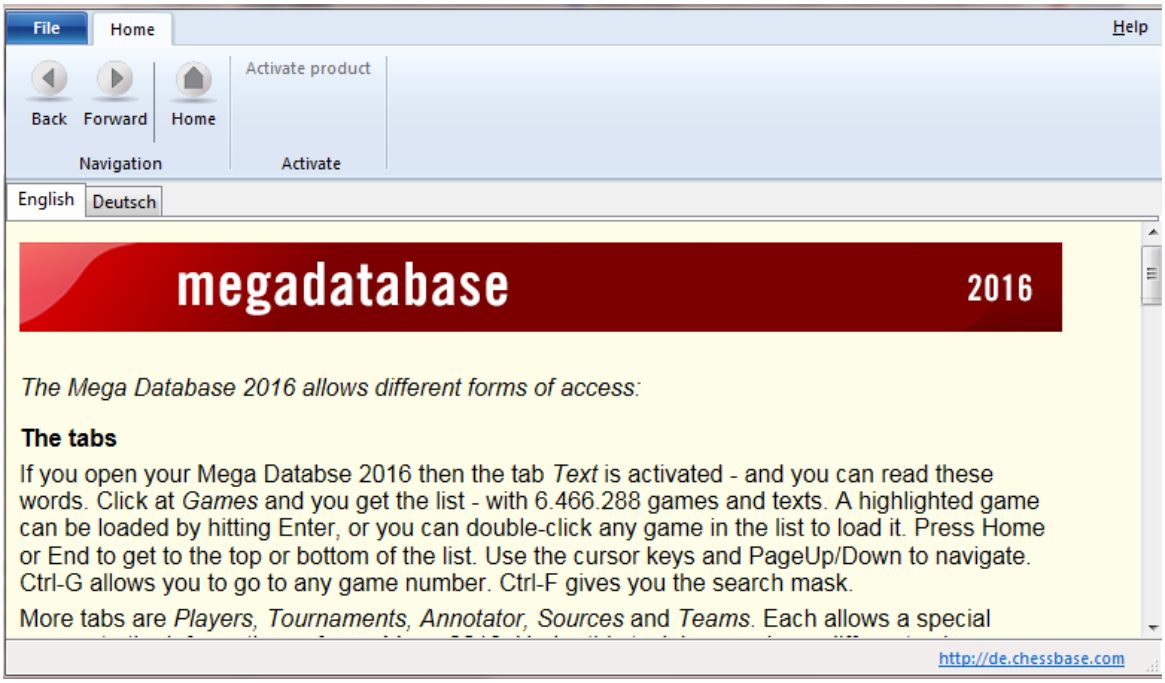
-- they're essentially useless, as the data can't be used on a PC other than the one on which the CD was formatted. CD-R disks are much better, since you can change the disk's parameters to enable its use on other PCs (this is something else I learned the hard way).

3.5.32 Database text

A database text is not a game but text reports, which may contain pictures, videos, positions and links to games, keys, other texts, etc. It appears like a game in the database list, an can be loaded in the same way. But it produces a new window for the report.



This is an example of a database text from the Mega Database 2016.

Database texts are only available in the CBH database format.

3.5.33 Database formats

This program reads and writes all ChessBase file formats, including the old **CBF format** , the normal multimedia **CBH format**, the ChessBase archive format CBV, the international PGN format, and EPD positions (these can only be imported into a database). When you copy games from one format to another they are automatically converted.

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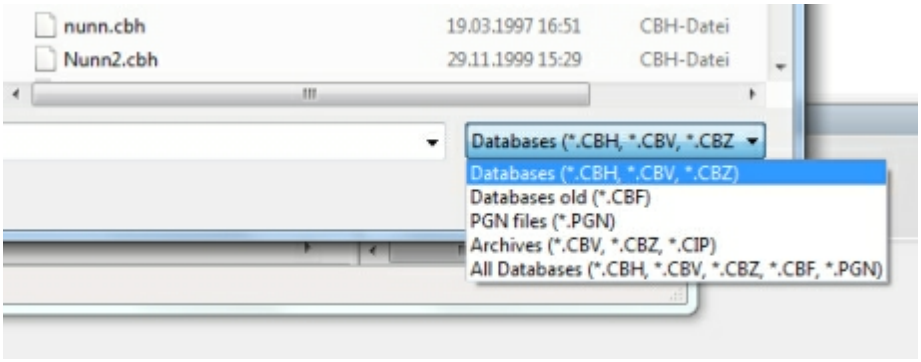

The program uses the openings book tree format CTG, but it can import old books in the FBK format.

PGN is an internationally accepted text format which can be read and edited with a simple ASCII editor. On the Internet you will find many games in PGN format. Even if these files contain a lot of additional text – tournament reports, tables, general messages – they can still be accessed directly, without any prior conversion. Just make sure the file has the ending "PGN". The program will ignore all the text in between the games.

Note: You can convert games from one format to the other by copying them into a database with the required format.

3.5.34 ChessBase Magazine

ChessBase Magazine is published every two months. This unique, electronic publication contains over 1000 games from the best tournaments throughout the world. A majority of them are extensively annotated, often by world class players and often with easy-to-understand text commentary. There are special sections for opening surveys, gambits, tactics, middle and endgames, blunders. ChessBase Magazine presents the ultimate training material for ambitious players.

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The Magazine is also the ideal upgrade tool for the openings tree. Every two months you can execute the function Openings book – Learn import games or Learn from database and the program's knowledge of openings theory will be completely up to date.

ChessBase Magazine also contains exciting multimedia reports from current tournaments, private interviews with top players, and video commentary of their games.

With this program you can enjoy all aspects of ChessBase Magazine, including the text reports and the multimedia sequences. A special "reader" is also included on the DVD, which has many of the important functions of the ChessBase program.

3.5.35 ChessBase

This program has a number of functions that come from the chess database program ChessBase, which is the standard tool of top players all over the world. Our chess playing programs are perfect for amateurs who want to look after their own games and browse around in the games of the masters. But if you decide to start working seriously with very large databases you should consider acquiring ChessBase.

WHAT YOU CAN DO WITH CHESSBASE:
Retrieve games according to openings, players and tournaments; generate tournament cross tables and full graphic statistics of players or openings; "Similarity search" shows all games with similar pawn structures, sacrifice patterns, endgame positions etc.; "Let's check"*: access the world's largest database of in-depth analysis (more than 200 million positions); Cloud analysis: analysis of a single position with several engines from different computers running in parallel; "Deep analysis": generates an analysis tree that changes dynamically as with time weaker variations are dropped. One click annotates your game with the "Theoretical Novelty"; merge games on-the-fly into an opening tree; generate a player's dossier containing all available information from the database; generate a comprehensive openings report with main and critical lines, plans and most important games; Single click publishing of games on the Internet; print games in superb quality with diagrams and multiple columns; automatic update of your local reference database with the weekly install- ments of games (only with the current Mega Database); access to the ChessBase online database with over 7 million games**.

Full information is available at our web site: www.chessbase.com.

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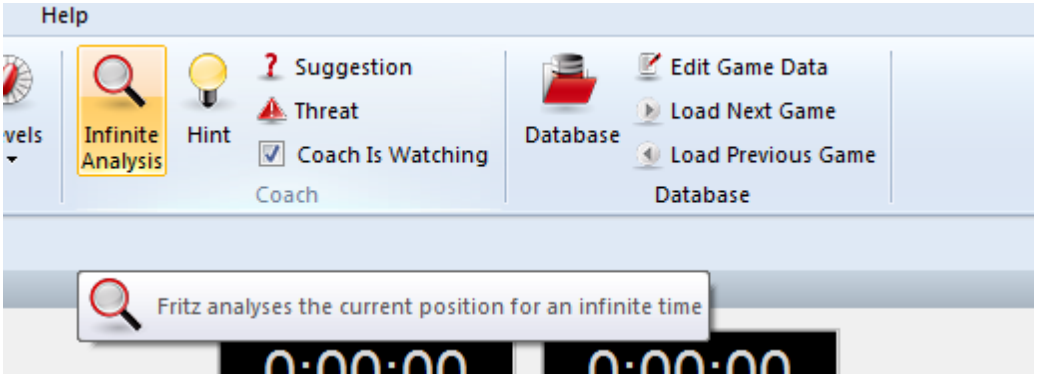
3.6 Analysing games

3.6.1 Infinite analysis

Menu: Home Infinite analysis (or Alt-F2)



Note: Before starting a game is to be noted that the program is set after the first start on the Infinite analysis mode. Experience has shown that most users set the program for analyzing your own games. So you have to select a Playing level first before you can play directly against the program.

This puts the program into a special mode where it does not reply when you enter a move but instead simply analyses the position on the board. You can now enter all the moves of a game.

Clicking the same menu or pressing Alt-F2 again switches back to normal game mode.

There is also a button in the toolbar at the top to start and stop infinite analysis.

See also Game analysis with Let`s Check ..

3.6.2 Enter & Analyse

One of the most important situations users will find themselves in is entering and analysing games. There can be no active tournament player who does not employ the program for the analysis of his or her own games.

These functions can be accessed from the starting screen under ***Enter & Analyse***.

Just like in the Easy game mode, you will find in analysis mode an interface which has been optimised for this specific situation. All those functions which are relevant to the

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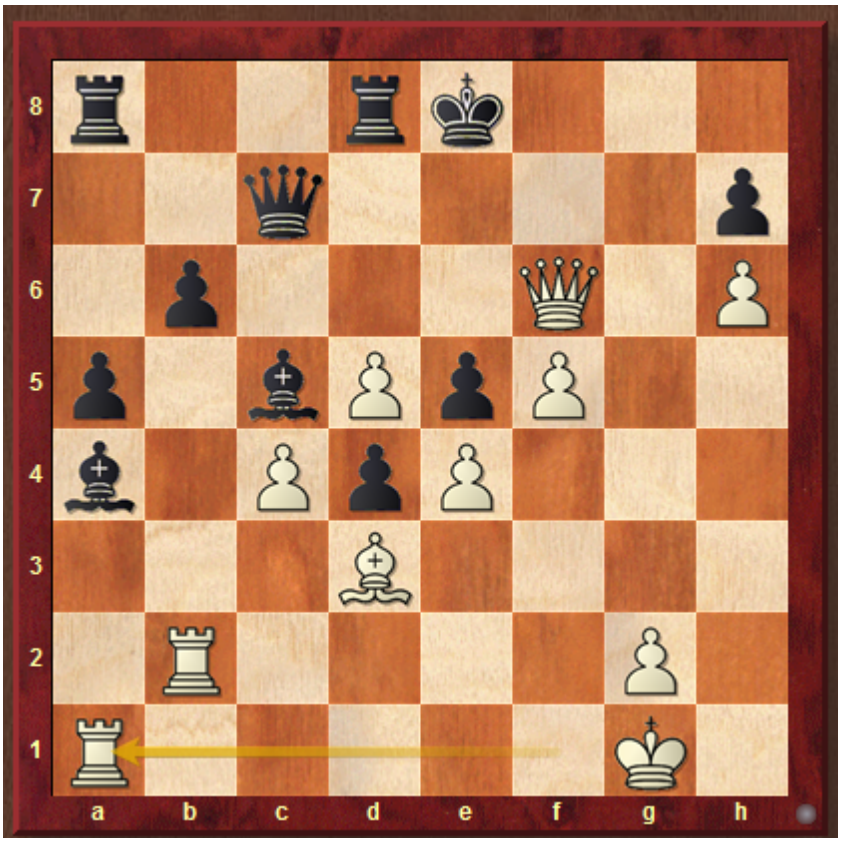
inputting and analysing of games are available, but not those for playing games!

Important new functions in **Fritz16** are:

Assisted Analysis

In analysis mode there is support for Assisted Analysis, the new function introduced in ChessBase 14. What does Assisted Analysis mean then? The simplest way to understand the feature is by trying it out.

The following position is taken from the game **Kasparov – Petrosian, Moscow 1981**.



Kasparov played 36. Ra1 and Black's position looks to be endangered. If you move the mouse cursor over the chess board and turn the mouse wheel, the black queen will be highlighted with a green frame.

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Like this the function offers a hint as to which piece is to be moved. A mouse click on the black queen then throws up the following image:

The program gives to the user a display in which colours are employed to show the possible squares to which the selected piece can move. The colours of these highlights are based on the evaluations of the chess engine which is at work in the background.

In our example interpretation is simple. A safe and also the best target square is e7 (highlighted in green), unsafe squares are displayed highlighted in red. Petrosian, moreover, played the move suggested and later went on to win the game!

You will find further information on Assisted Analysis here …..

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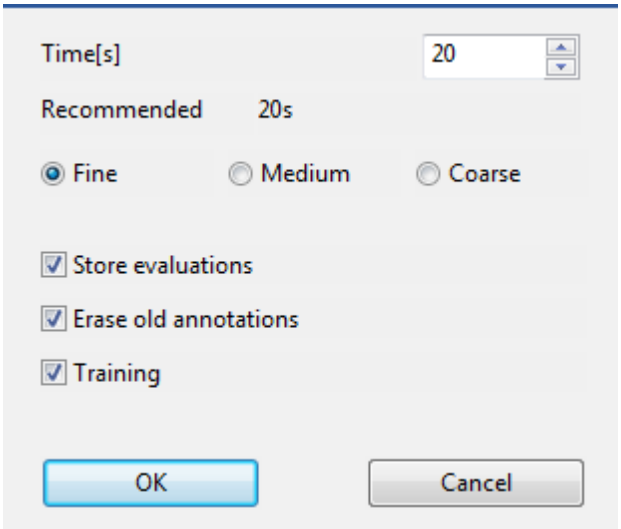
Tactical analysis

Tactical Analysis was introduced with ChessBase 14 and replaces the version of Full Analysis which was implemented in earlier versions of the program.

This function is available under **Analysis – Full Analysis**. Then when a game is loaded the dialog box for Tactical Analysis will be started.



Tactical Analysis analyses in one session either an individual or several game(s). The difference from Infinite Analysis is significant. If you consider games with an engine in the mode Infinite Analysis, you only ever see the best moves displayed. This really results in an incomplete fashion of looking at the position, because the user does not get any immediate and specific evaluation of the alternatives. It is only when you input your own alternatives in this mode that you will receive a specific evaluation.

Tactical Analysis offers the advantage that the program does more than just highlight bad moves. The user obtains from the program a plethora of information concerning the opening, critical positions, alternatives and threats! By means of graphic commentary the program inserts tips about manoeuvres, threats and possible plans.

The analysis is supplemented with the insertion of diagrams and comments in natural language. The user is stimulated by the insertion of training questions to deal quite concretely with the analyses which leads to more intensive training. The description shows that Tactical Analysis provides the user with an extremely multi-facetted tool for the analysis of his or her own games.

In order to get to know / try out the function, load into the board window a game without any commentary and start Analysis – Full Analysis. Activate the Training option in the settings. You should not set the thinking time at too high a level in order for the analysis to be completed rapidly. On a fast modern computer, even with a short thinking time this form of analysis will provide you with plausible and reliable results. To be on the safe side, select between five and eight seconds per move. Tip: Be aware that in the setup dialog the program actually makes a recommendation as to the time you should choose!

The program starts the analysis with the engine which has been listed as the default

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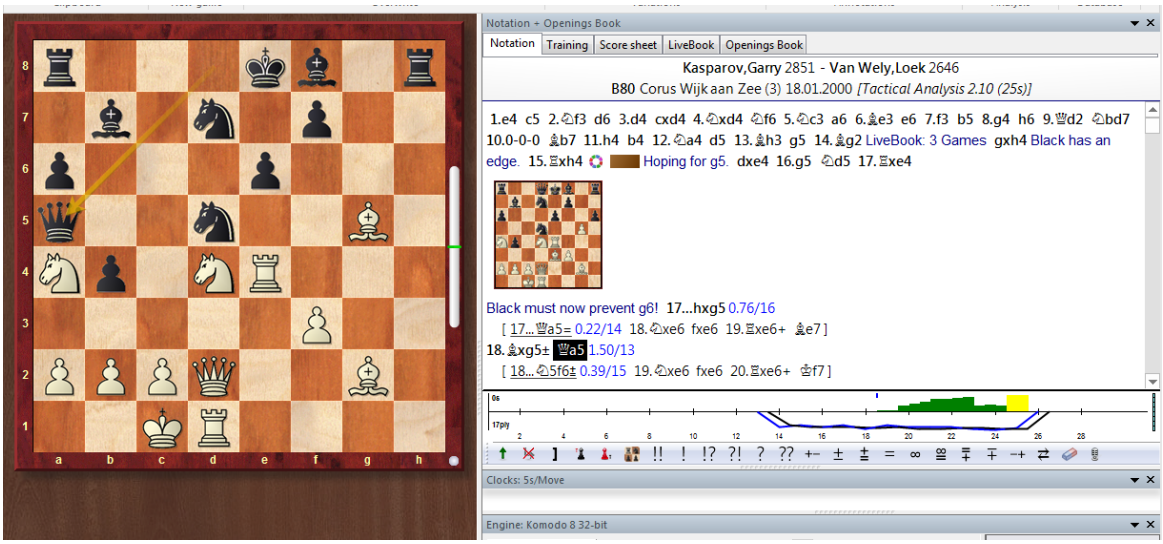
one.

After Tactical Analysis the previously unannotated game contains a complete analysis including embedded training questions.



Tactical Analysis as implemented in Fritz16 offers two more innovations. It also displays – as previously described – variations which are somewhat better than the move played in the game.
A further useful piece of help and guidance as you play through a game is offered by the evaluation profile integrated into the game. Throughout the game this evaluation profile displays graphically the evaluations of positions carried out by the chess program running in the background. By means of this evaluation profile underneath the notation it is possible when playing through the game to see at a glance when the game tipped one way or the other.

More information on tactical analysis ……..

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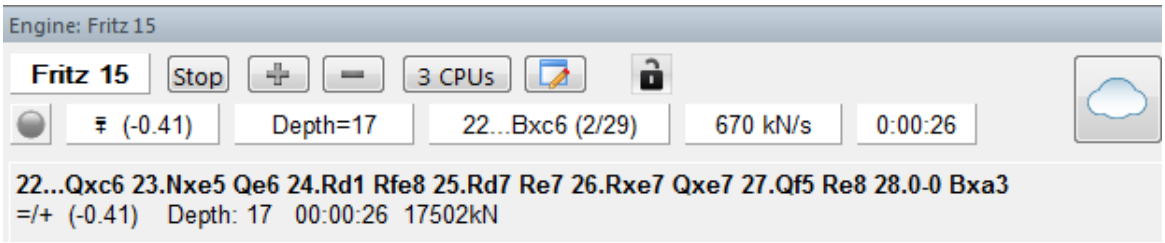
3.6.3 Evaluation of the position

Chess engines evaluate positions with the help of a numeric value. The evaluation is expressed in pawn units, always from the point of view of White. If the program is displaying a value of +1.30, this means that it considers the white position to be better by the equivalent of 1.3 pawns. If White is actually a pawn up, then the additional 0.3 is the result of positional considerations (mobility, deployment of pieces, king safety, pawn structure, etc.). A display of –3.00 means that White is a piece down – either a bishop or a knight, which are both equivalent to about three pawns. Rooks are worth five and the queen about nine pawns. Of course the king's value is unlimited – lose it and you've lost the game.



Always it is the case: positive values favour White, negative values favour Black.

In addition to the precise pawn values, the evaluation is also given in standard chess symbols:

=	The position is about equal
²	White is slightly better
±	White is clearly better
+-	White is winning
-+	Black is winning
µ	Black is clearly better
³	Black is slightly better

3.6.4 Extended Engine Information

In the analysis mode the standard engine displays new information in the engine window.

Right clicking in the engine window opens a context menu.

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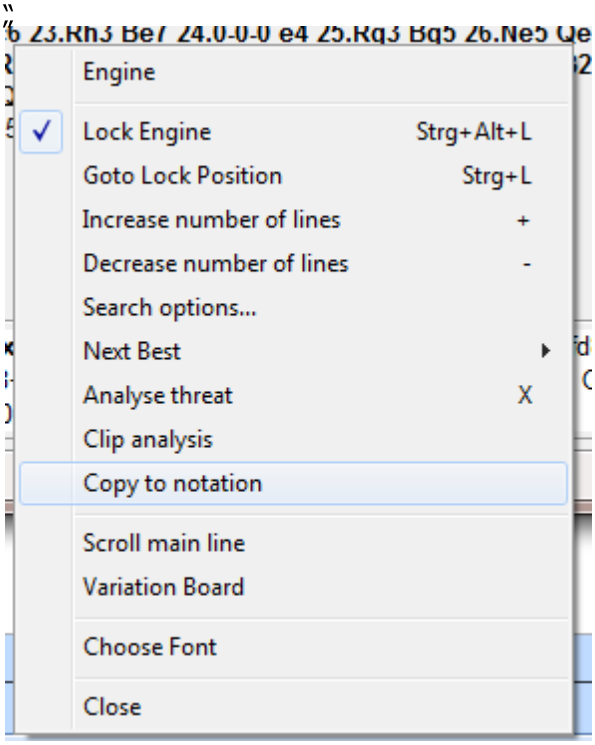

Next Best calculates the second best alternative for continuing. While the engine is calculating this information can be accessed faster by typing the key Y. At the beginning of the engine window the best line found so far is displayed in light gray letters.

After this possible alternatives are displayed.

Tip: This information is at the beginning of the list view. If you cannot see this information use the scroll bar to scroll back to the beginning of the list.

> **Hint:** The next best move option is only available while the engine is only analysing one line.

The program has options for the function *Next best move* .The function *Next best move* calculates alternatives to the main line. While the engine is thinking this information can be accessed directly by typing the letter Y, which is faster than accessing this function via a context menu.

At the top of the engine windows you can see the best alternative moves, shaded grey. „Look for a better move" tells the engine to search for moves that have a higher evaluation.

Display of the current main line

At the bottom of the engine window the line that is currently being examined is displayed.The main advantage of this display is that it is constantly updated even if the best line displayed remains unchanged during lengthy processing.

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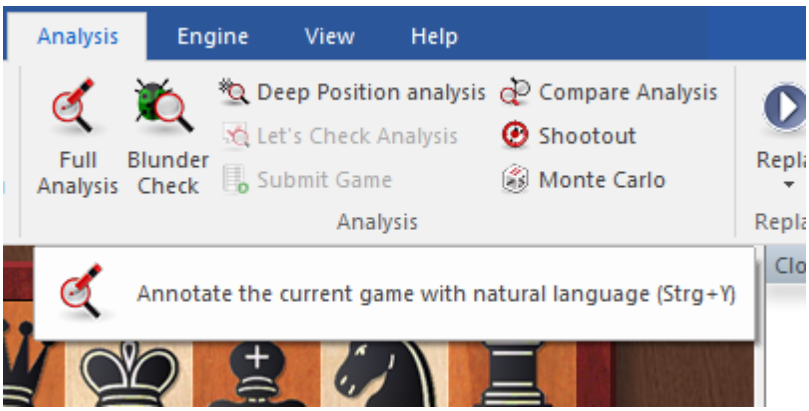
3.6.5 Full analysis / Tactical Analysis

Analysis Full analysis

In the form of the function "***Tactical Analysis***" the program offers a complex function, but one which is easy to use in order to automatically search through games for mistakes and tactical inaccuracies.

See also .....

The function is available both in the mode *Enter & Analyse* and under *Classic Menu* from the start screen.



The program inserts in the game notation both comments and variations and takes into account the following list of factors:

- opening theory
- tactical motifs such as strong moves, combinations, sacrifices and double attacks
- mistakes, oversights or other critical turning points within the game
- weak moves which were not played (why can I not take that piece?), often going on to provide the tactical refutation
- threats and attacking motifs

defensive ideas, the initiative, attacks, manoeuvres, classification of endgames and illogical results of games.

In a single pass, Tactical Analysis analyses either one individual or several games. There is a significant difference between it and Infinite Analysis. When you analyse games with an engine in the Infinite Analysis mode, the only moves shown to you are the best ones. That provides you with an incomplete overview of the position, because you do not get a direct and specific evaluation of the alternatives. It is only

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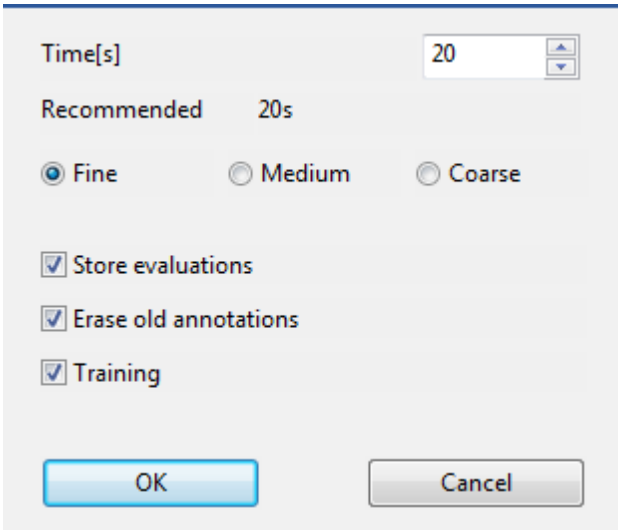
when you input your own alternatives that this mode will provide you with a specific evaluation of them.

Tactical Analysis also has the advantage that the program does not only single out bad moves. The user gets from the program all sorts of information about the opening, critical positions, alternatives and threats! Using graphic commentary, the program inserts hints as to possible manoeuvres, threats and plans.

In order to get to know / try out the function, load into the board window a game without annotations and start ***Analysis*** ***Full Analysis***.

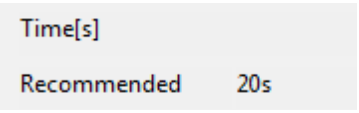
You choose you settings in the dialog box for "*Tactical Analysis*".



The headings are self-explanatory: *Training* has the effect that the program embeds within the notation training questions which will be displayed when you play through the game.

You should not set the thinking time too high, so that the analysis can be completed rapidly. On a fast modern computer even with a short thinking time this type of analysis will come up with plausible and reliable results. You will be on the safe side if you choose between five and eight seconds per move.

Tip: Note that within the settings dialog the program gives you a recommendation as to the time to allot! You can accept this.



The program begins its analysis with the engine you have defined as your default. The games are annotated with variations, text, diagrams and commentary symbols.

Analysing several games

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With this function you can in one go analyse several games from a database. Highlight the desired games in the games list in the database window with Ctrl + mouse click.

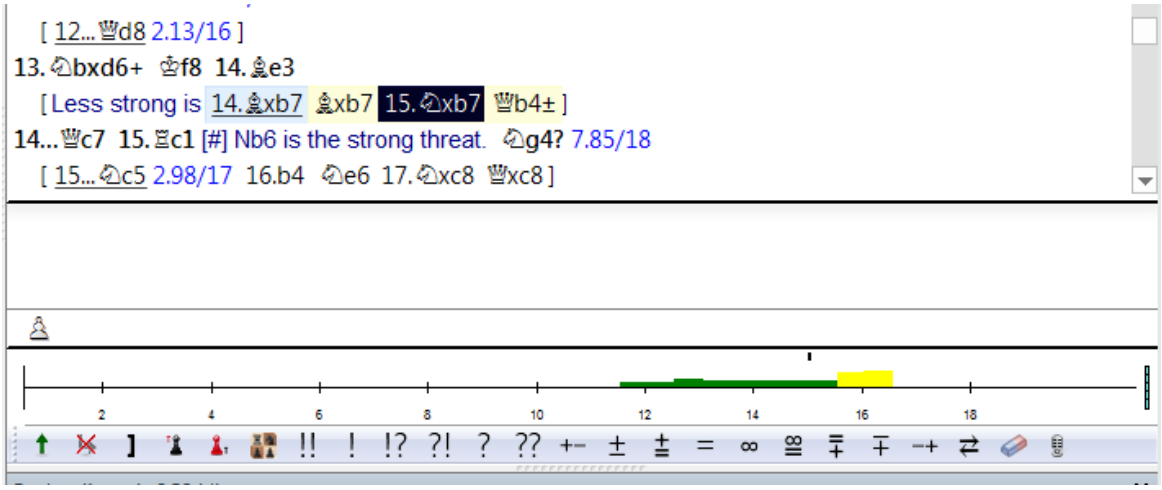
Then in the menu bar of the database window click on "***Full Analysis***".

Elements of the commentary

In addition to variations and textual annotations, the program offers further supplementary information after a tactical analysis.

Evaluation profile

Another useful piece of help and guidance during the playing through of games integrated into the game is offered by the Evaluation profile which is generated from tactical analysis.

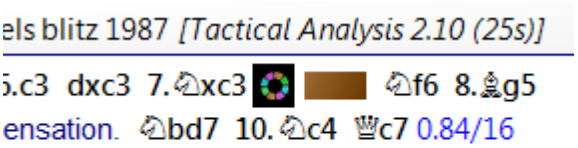


The evaluation profile shows graphically during the course of the game the evaluations of the chess engine. Using the evaluation profile below the notation you can recognise at a glance when playing through a game just when it "turned" one way or the other.

Whenever you click on a specific place in the evaluation profile, the relevant position is immediately loaded into the board window and displayed. So it only takes a few clicks when you are playing through a game to navigate directly to the decisive moves and the critical phase of the game.

Graphic commentary

In the notation you will frequently find things highlighted in colour.



What is the meaning of this circle? This symbol within the notation indicates that graphic commentary is displayed which has been added by the Tactical Analysis.

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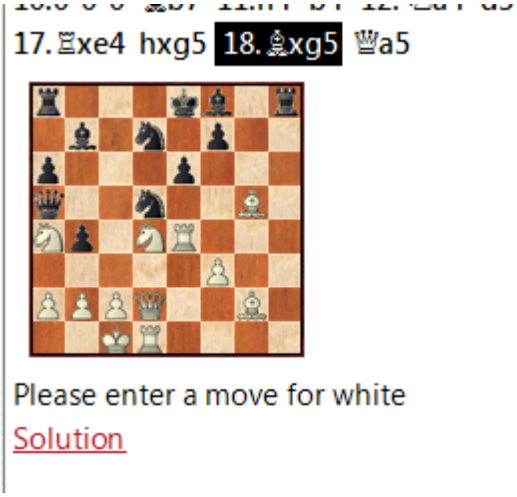
By means of this the program provides hints as to possible manoeuvres or the effects of forces on the board.

Clicking on this symbol immediately displays the relevant graphic commentary on the chess board.

Diagrams – Training questions

At critical moments of the game the program inserts diagrams into the notation.



This is to stimulate you to find for yourself the best continuation whenever you are playing through a game. If you cannot manage it, then a click on *Solution* will help.

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3.6.6 Example Tactical Analysis

The *Full Analysis* can be used in various ways. Many tournament players use this function for the analysis of their own games, which is of course helpful when at a later date they wish to look specifically for mistakes in their own games. For my part, I really like using the function to investigate games by the legendary chess greats of the past. It is always fascinating what the engines can find in the games of great players.

The function can be deployed both directly in the board window for the game loaded and also in the games list of a database to deal with several selected games. There you simply highlight several game entries by holding the Ctrl-key and clicking on the games which are to be submitted for analysis.

The dialog offers various options; on fast computers a short thinking time setting for a single move also offers as a rule plausible results. According to the time prescribed for analysis the result will be more or less precise, although the analysis will then also take longer.

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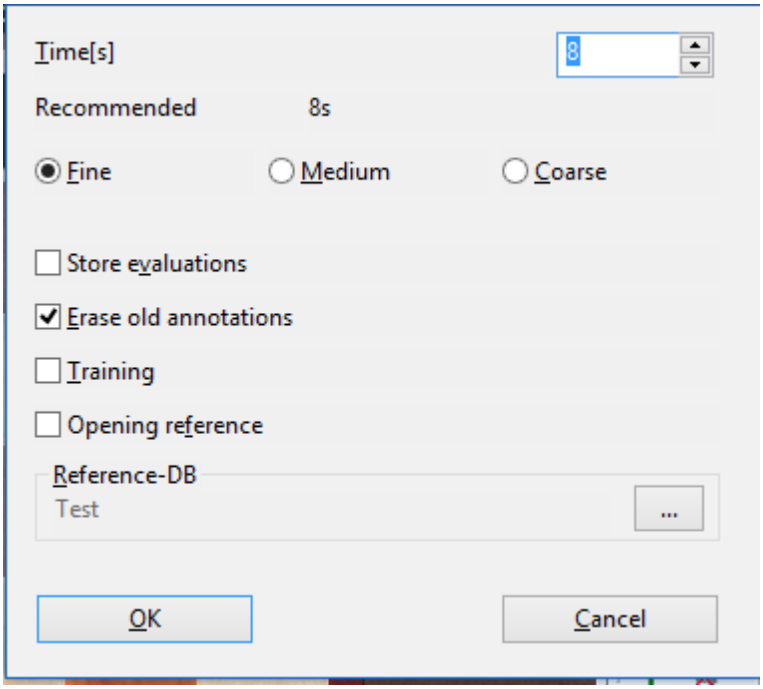

But this should not pose a problem because the analysis can be carried out completely in the background whilst you are doing other things on your computer.

As a model, I have chosen the legendary 18th game from the third WCh match between Botvinnik and Smyslov. After Smyslov's 22nd move as Black (...Rcd8) the following position arose:

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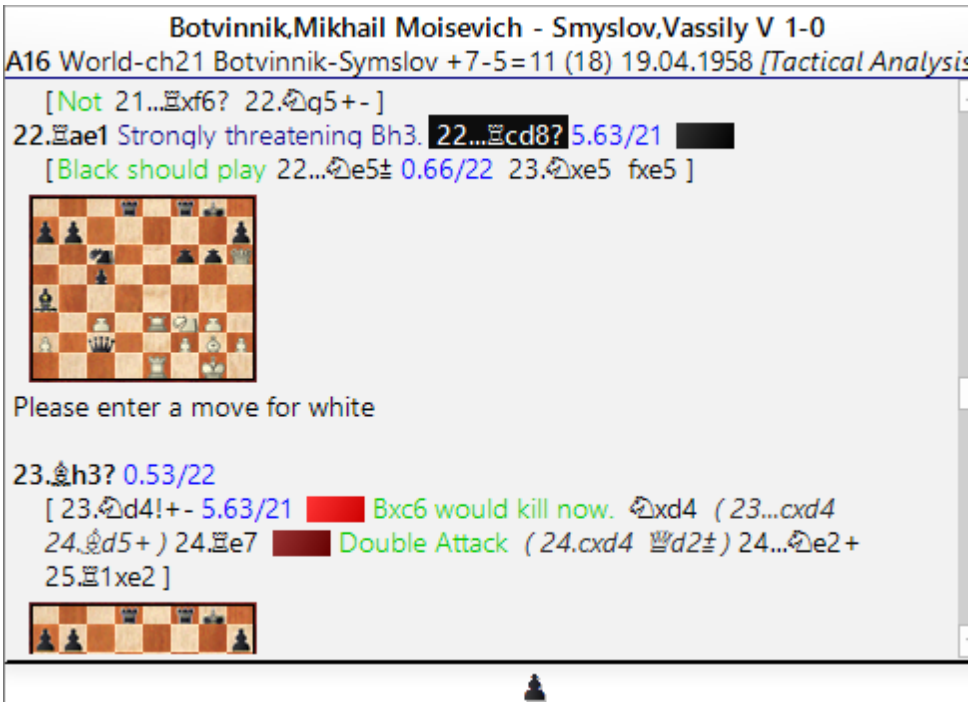
Botvinnik continued with 23.Bh3, but could have won by force with the beautiful double sacrifice 23. Nd4 !.23. Nd4 cxd4 24. Bd5+ Rxd5 25. Re8 1-0

Now let us take a look at a section of the notation of the game after the tactical analysis.



As you can see, this beautiful sacrificial line is found immediately by the tactical analysis within the prescribed thinking time. As the example shows, every tournament player should make use of this function for reviewing his or her own games.

3.6.7 A tip for Full analysis

The function "*Full analysis*" on Fritz&Co produces a complete analysis of one or several games, including variations, textual commentary and also even opening references.

The analysis also contains indications of games which were played with that opening system. In order for the program to be able to produce opening references, you must first specify in the settings dialog the path to the database which the program will use as a reference database or which contains the desired information about the openings.

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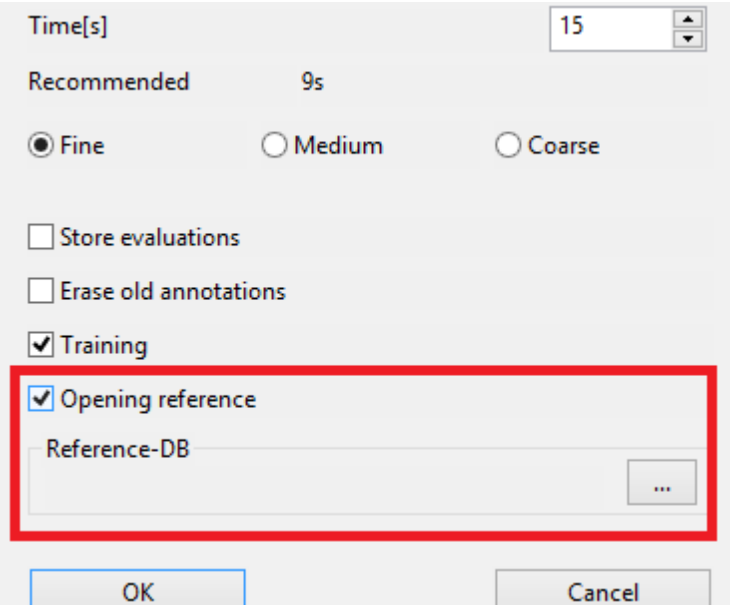

With the help of a large reference database the program is able to classify the opening played in the game, integrate recent games for comparison and indicate the position at which the game being analysed diverges from opening theory.

When, despite the provision of a reference database, the program does not make use of it and provides no opening hints, what is the reason? During the setting up of the reference database the program requires an existing opening classification!

If no openings key is present in the database you have defined as your reference database, the program cannot produce a reference. It is simple to check whether the chosen reference database contains an openings classification: in the database window you click on the tab *Openings* .

If there should be no openings classification, the program automatically offers to classify them by means of a pre-existing key. For example, by clicking on "Select key" you can install an openings key from the included games database or from one of the supplementary databases. An openings key always has the file extension ***.CKO**; this default setting is automatically taken into the dialog under "File name". If for your full analysis you define either the Big- or MegaBase as reference database, there will be no problems since these databases are classified with a precisely structured opening key.

3.6.8 Deep position analysis

Analysis Deep position analysis

This function is used to analyse a specific position. It is very good for getting deep and detailed analysis of a critical position, and especially interesting for correspondence players.

Deep position analysis generates a detailed analysis tree for this position. You can determine how deep and broad the tree should be and what moves should be included

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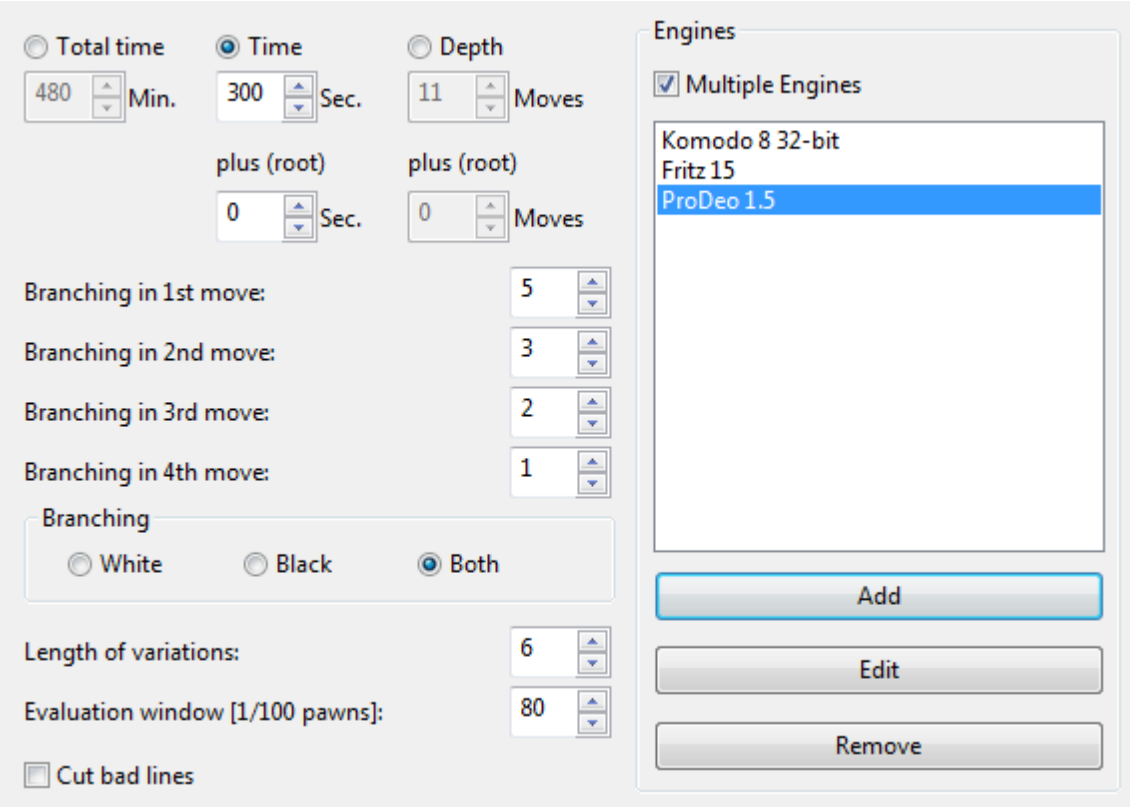
or excluded from the analysis.



Time/depth: The precision of the analysis is determined by time available per move, or by the fixed calculation depth you allocate. Time per move is more flexible since it allows the program to go much deeper in certain positions (e.g., in the endgame). If on the other hand you are doing the analysis in the background then fixed depth is better since the analysis will be fully executed even if the program is only getting very little CPU resources.

Plus (root) allows you to add extra time or search depth to the root position, so that it is analysed more deeply than positions that occur in the search.
Branching: The branching factors for the 1st, 2nd and 3rd moves define how many alternative moves are given. The higher the values, the broader the analysis tree. However, the program may change the branching factor if it thinks the position merits that. This is dependent on the evaluation window described below. If there are moves present after the position, these will always be considered.

Branching: White, Black, both determines whether alternatives should be given for one or both sides. Example: you want to show that in a certain position White is winning by force. Then you are not too interested in white alternatives and should set branching for Black only.
Length of variations: Sets the length of analysed variations.

Evaluation window: This value, given in 100ths of a pawn, determines when a variation will be discarded. The value 80, for instance, means that moves which are 0.8 pawns worse than the best move will not be investigated any further, even if the branching factor would allow it.

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The *Threshold* determines when a move is considered a mistake. This is described in "centipawns" (one hundredth of a pawn's value).

At the end of deep position analysis, all the variations that have been generated are sorted and the strongest moves becomes the main line.

Cut bad Lines means that bad continuations, as recognized by the Alpha-Beta algorithm, are ignored and not examined any deeper.

Note

- You can influence the analysis by entering continuations to the game. These moves and variations will always be taken into consideration. If you do not enter any moves then the program is free to look at any lines it thinks are worthwhile.

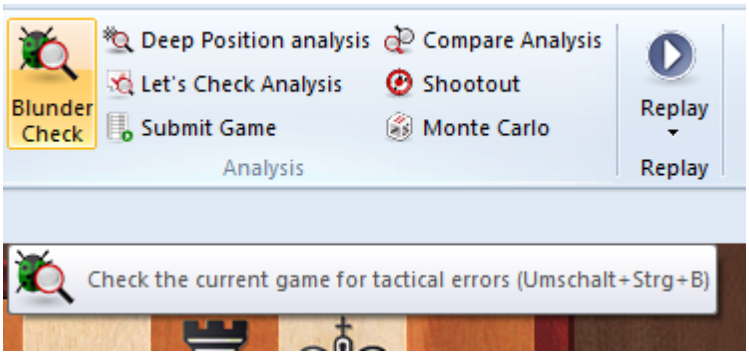
- If you annotate a move with a "?" then it will not be taken into consideration. So this is an excellent way to exclude lines you know will lead to nothing, but which the program would otherwise analyse extensively.

- You can use more than one engine to analyse a position. The engines are used in the order in which they are listed – if you have four engines and two lines then the first two engines will be used for these.

- It is often better to give let the program analyse many alternatives for one side only. For instance if you want to know if White can force a win in a given position you may set a branching factor only for Black to see if the program can find any defence against the best white attack.

3.6.9 Blundercheck

Analysis Blunder check



This does not provide a full analysis of a game, but simply a tactical examination, one that reveals glaring errors. There are a number of options in the blunder check dialog

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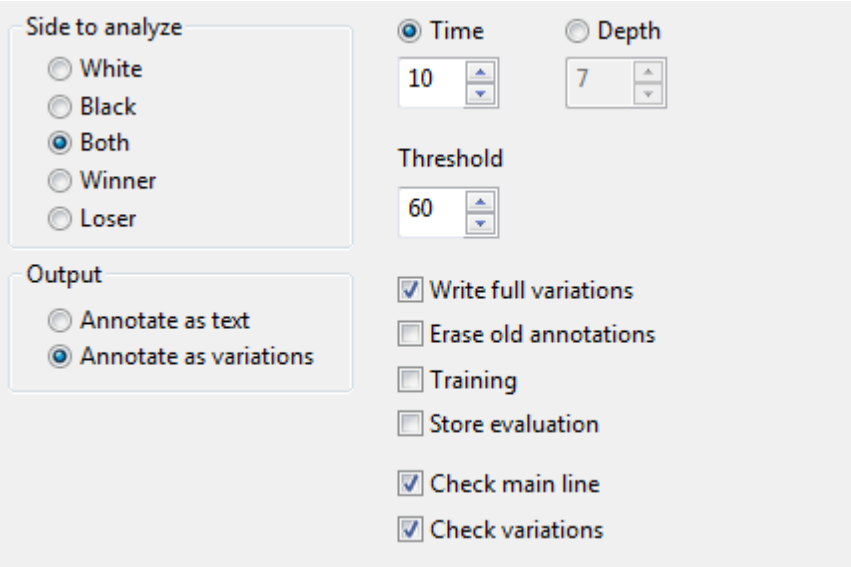
box:.



- **Side to analyse:** You can restrict the analysis to the player of the white or black pieces, or to the winner or loser
(similar to the automatic analysis).

- **Output:** If the game you are checking already contains annotations, you may not want the program's analysis buried in the variations. Select Annotate by Text to make it easier to find the remarks in the notation.

- **Full variations, Erase old annotations, Training:** Select these choices to erase the old analysis, and have the variations written out in full. You can also specify to have training positions generated.

- **Storage, Time/depth, Threshold:** You can determine the average search depth per move. Enter the minimum time the program should spend on a move. The threshold defines when a move is considered a mistake. If you enter a high value (e.g., 300 = three pawn units), then only grave blunders will be considered. If you set a very low value, the number of commentaries and variations will increase. If you set the threshold to zero, the program will annotate every move, even if there is nothing to say.

- **Check main lines/variations:** Select the main line of the game to be checked, the variations, or both.

- **Storage:** If you are blunder-checking one or more games in the database window (mark many and execute "Blundercheck"), then you can specify how to store the games after they have been checked. You can put them back into the same place in the database (i.e., replace the original games); or append to the database (i.e., store again as a fresh copy).

Games in which the blunder check has revealed serious errors are marked with the black “Tactical blunder” medal; they can be easily found in the games list and with the search mask.

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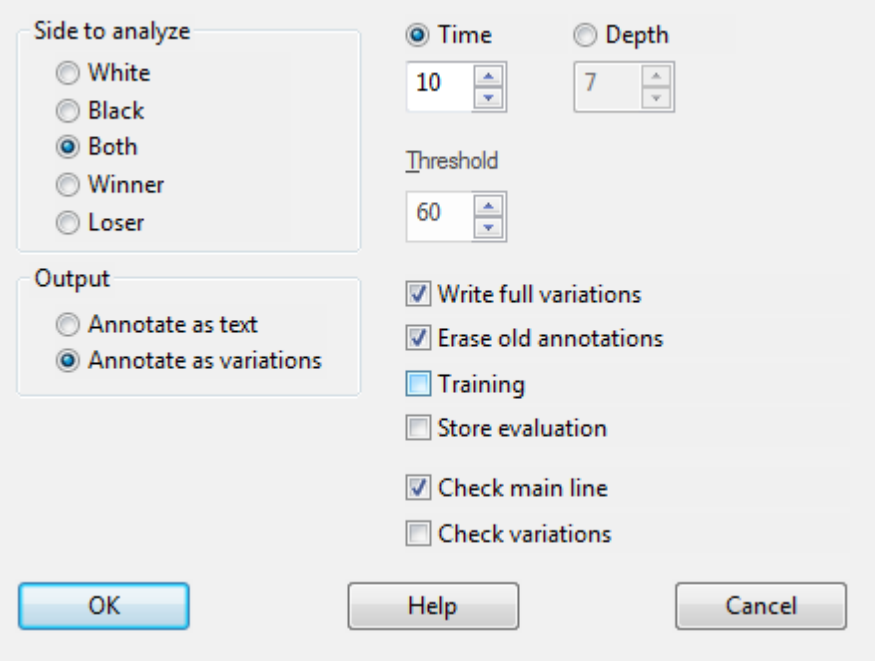
The name of the engine that was used in the blunder check is entered as a text commentary before the first move. If you analyse the game again with a different engine, the name of the engine with every new variation appears.

3.6.10 Commentary symbols in the Fritz Blunder search

In the Blunder search in Fritz the commentary symbols **??/?/!!/!** are not even included whenever running through a fully non-annotated game without having previously run a full analysis. But I would like to see these commentary symbols so that I can immediately spot the critical phases of the game which has been analysed. Things were different some updates ago – then I had submitted the games only to a blunder check and the symbols ?/?? and/or !/!! were then inserted immediately.

In the setup dialog for the program's blunder search there is the option "*Erase old annotations*".



If this parameter is selected then during the blunder search the program inserts the commentary symbols within the notation!

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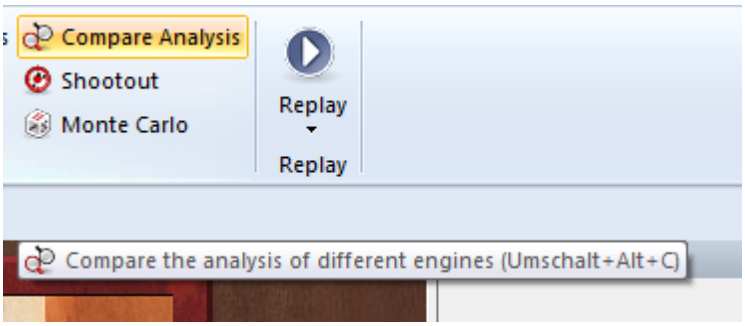
3.6.11 Compare analysis

Analysis Compare analysis



The automatic comparison of the analysis of two different engines has two main uses. First, it is an excellent way of evaluating the strengths and weaknesses of the engines. On the other hand, from a chess point of view, it is very interesting to compare the conclusions of two different engines. One might be tactically more reliable, the other more positionally sound.

It is also interesting to compare two versions of the same engine. The "compare analysis" function allows you to check what each finds at a specific search depth, or how many position nodes each of these engines actually checks to reach a certain search depth.

You can set a variation colour for each engine (when loading it) so that it is easy to tell at a glance which engine produced the individual lines.

How to load engines:

- **New** allows you to select engines from the list of all available engines.

- **Edit** allows you to change the settings for the engines already loaded (hash table size, variation colour).

You can use "compare analysis" on a number of games (in the database window). In this case, specify whether the analysed games should replace the original entries or if they should be appended to the end of the database.

Please note: You can load an engine more than one at a time and then use Edit – Parameters to set different engine parameters. In this way you can find out how the settings affect the performance of the engine.

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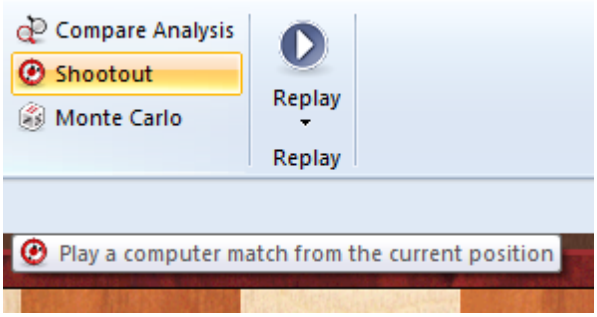
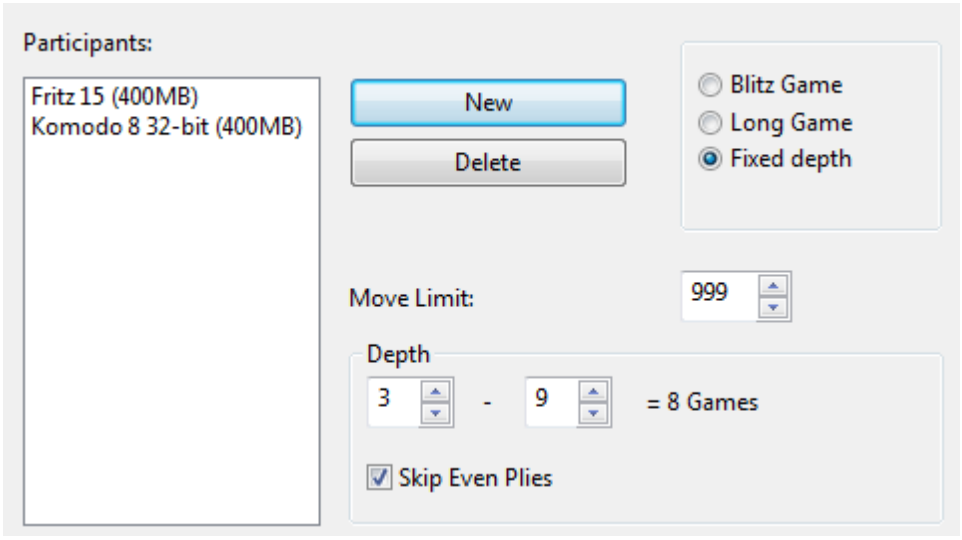
3.6.12 Shootout

Analysis Shootout



This allows you to use one or more engines to play out the rest of the game. It is used to test different engines – which lets them play out a tactical, strategic or endgame position at different depths – but also for analytical purposes.



- **New** is used to include new engines in the shootout.
- **Delete** is used to to remove them from the list.
- **Move limit**: You can set a maximum game length and average search depth for each move.
- **Depth:** If you set depth = 5 – 9, new games will be played at each ply depth. Using two engines, the program will switch sides at each ply depth.
- **Skip even plies** allows you to avoid the weakness of some engines at even plies. In the above example, setting 5 – 9 plies and skipping even plies results in three games (at a search depth of 5, 7 and 9). Since sides are changed after each game, we have a total of six games in the shootout.

The games from a shootout analysis are saved in the Engine Engine Database.

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3.6.13 Automatic analysis of server games

Blitz or rapid chess games on the server are of course extremely helpful in practical training. But in addition, people would always like to know where the might have played a better move or the point at which promising continuations were missed.

Here too the program can help. Fritz is analysing the game in the background while the user is actually playing it on the server. After the game has finished the user gets a complete analysis of possible mistakes and missed chances.

If there should be no analysis in the game notation, this can have one of two causes:

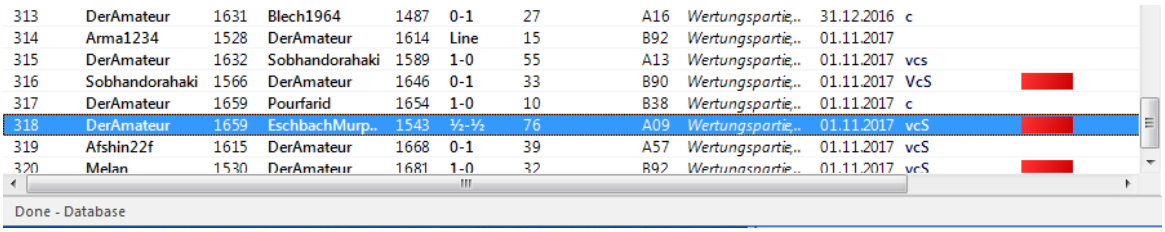
- the game was played with extremely short thinking times.
- The continuations in the game were correct or else the performance of the computer used is not good enough to generate the analysis.

For a game the program points out to the user missed chances and possibilities which he or she can see immediately when playing through it.

The access client of Fritz 16 saves you own server games directly into the database "*MyInternetGames*". These can be loaded directly from the client or with the chess program.

Menu Enter & Analyse – Start – Database.

Some of the games with embedded analysis are highlighted in colour in the list by means of medals.



The screenshot shows the result of the analysis which has been added.

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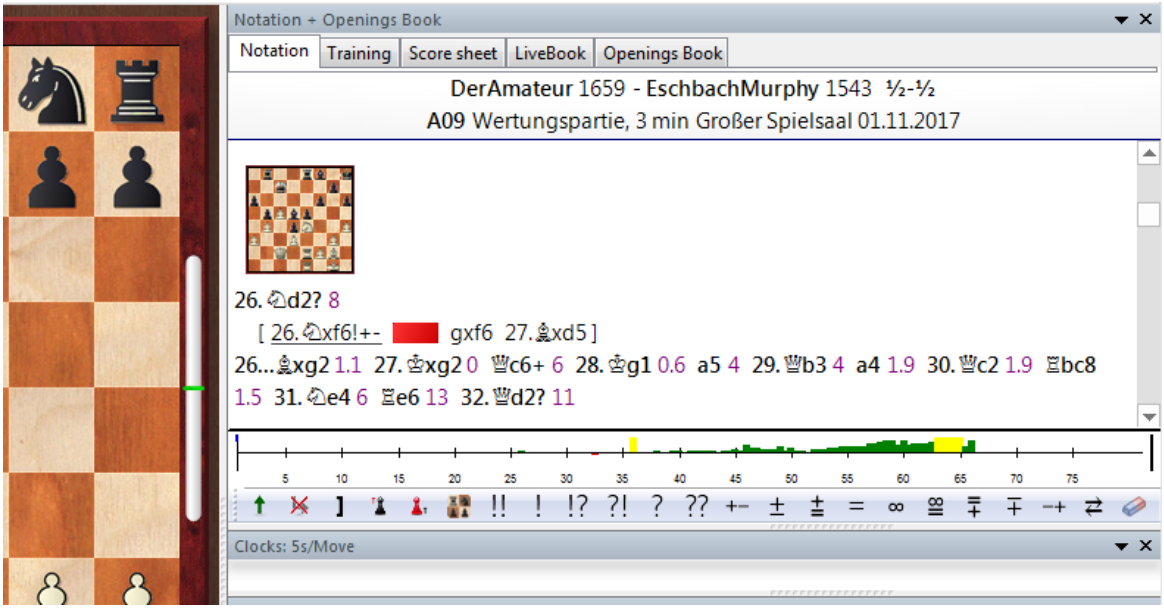

You can load the database MyInternetGames in Fritz 16 and spot games directly thanks to the coloured highlights or commentary symbols in the games list and then load them for analysis.

Fritz supplements the notation with some training questions. The program goes directly to the critical position and offers you the chance to find the better move yourself.

The database MyInternetGames

The database MyInternetGames is saved in the user's folder.

3.6.14 Blitz & train on Playchess.com

It is particularly with shortened thinking times that the number of errors rises rapidly. In many blitz games there are numerous positions in which mistakes have been made and these are frequently very suitable for training purposes.

For some time now the games played by users on our server have been automatically analysed in the background. According to the way the game has gone the user then often faces a dilemma: should he now go on to play another game or would he be better to immediately take a look at the automatic analysis? If, for example, the opponent offers a return game then an immediate post mortem at once falls by the wayside.

The function "*Blitz & Train*" offers a remedy to this: no matter how many games you have just played or not played you can generate from your own games training material and with a few clicks you can print it directly.

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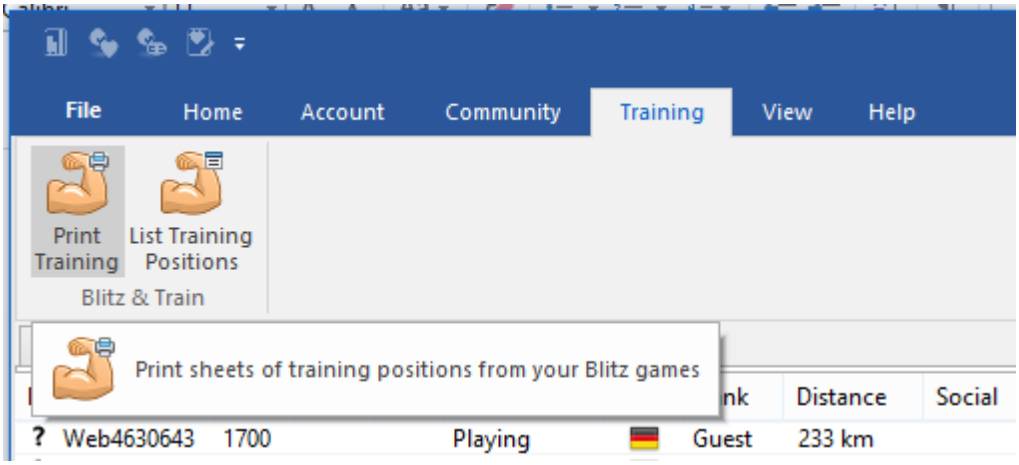
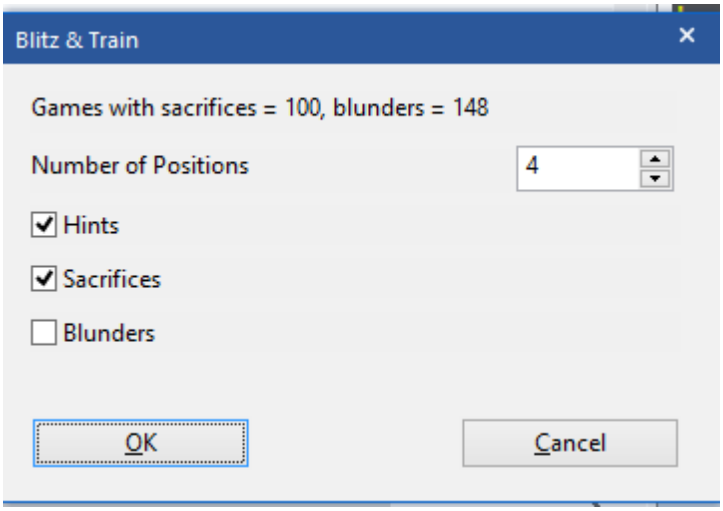


To do so in playchess.com, under the tab *Training* call up the function *Print training*. You then have these possible settings:



The function *Blitz & Train* presupposes that you have played some blitz games, in which combinations and mistakes are to be found. With Print training some appropriate exercise sheets are printed, while if you choose the option "List training positions" you simply get a database with these positions.

The positions are listed in chronologically descending order, with the recent games coming at the start of the database list. Tasks are evaluated for both sides. If you wish to take into account only your own colour, you can limit the choice to games or moves of the account under which you have logged in.

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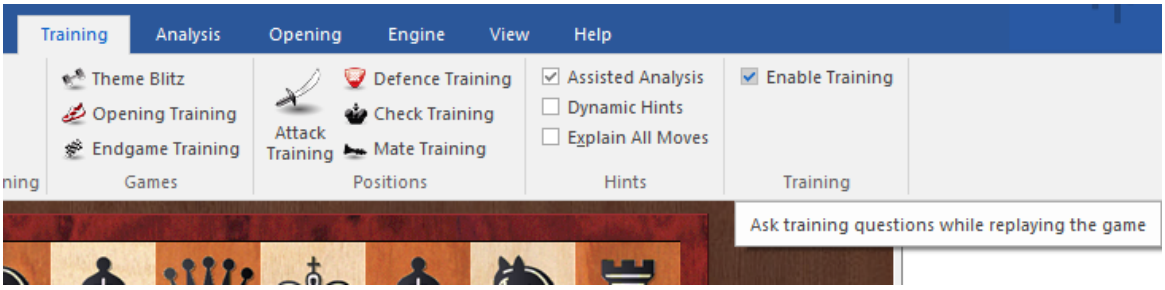
3.6.15 Training questions

Question: I have a question about Full analysis. In my case, during the analysis after a few moves this *** sign appears. I can no longer see the analysis. There is also no diagram etc. What do these asterisks mean? And how do I get further with the analysis?

In the Full analysis mode the program inserts training questions at key points; so it is challenging the user to find for himself or herself to find the solution at the point highlighted in the notation with the asterisks. For that reason, the continuation of the notation is hidden so that the user cannot see the solution.

If you wish to see the complete notation without being interrupted, then under the heading *Training* you must deactivate the option "Enable training".



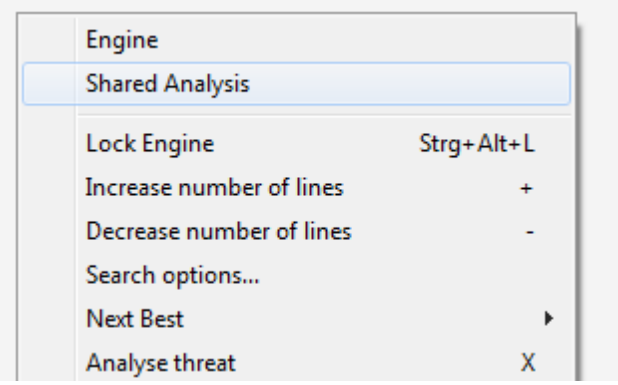
After it has been deactivated the complete notation including all comments by the chess engine is displayed!

3.6.16 Shared Analysis

Shared Analysis is used when analyzing a single position.

Start Infinite Analysis (ALT-F2)

Then right-click in the Engine Analysis pane to get a popup menu and select "*Shared Analysis*" from that menu.



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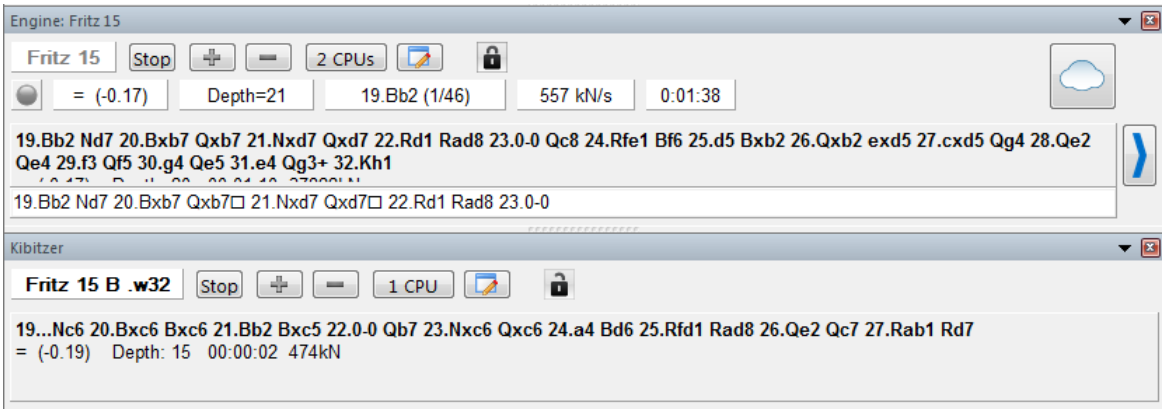
The single Engine analysis pane then splits into two panes. Here's what's happened. The original chess engine gives up half of your computer's processor cycles.

The software then starts a second "invocation" of the same chess engine which will then use that freed processing power; in other words, the software starts an identical copy of that same chess engine. Both of these engines then start analyzing the position, each using half of the computer processor's power.

The first chess engine gets "*locked*" on the initial position it was analyzing when you started Shared Analysis.



But the second chess engine (in the lower pane, noted as the "B" engine in the above illustration) is free to analyze different positions if you move the Notation pane cursor somewhere farther ahead in the game, but this second engine will also be storing its analyses in the same hash tables which it shares with the "A" engine.

Let's start Shared Analysis and then use the cursor keys or VCR buttons to jump the game ahead, say, three moves. The "A" engine will still be analyzing the initial position (the one on the board when we started the Shared Analysis function), but the "B" engine will be analyzing the position on the board three moves later and storing its evaluations in the hash tables it shares with Engine "A"; in theory, the "B" engine will always be three moves ahead of its "twin", therefore it'll always be storing positions in the hash tables for places the "A" engine hasn't reached yet. But when the "A" engine does get to these points, it'll find a whole lot of positions which have already been analyzed. This will allow the "A" engine to analyze a lot more positions very quickly and search even deeper than it could if the "A" engine was analyzing by itself. It's like a military team sending a reconaissance patrol ahead to report back on the terrain and enemy positions it encounters. When it's all said and done, Engine B is "feeding" extra analysis to Engine A.

As a last tip regarding Shared Analysis, it's best used with a large-sized hash table (as big as you can get without causing excessive hard disk activity). Remember, you set the hash table size in the engine selection dialogue (reached by hitting F3 while in the main chessboard screen).

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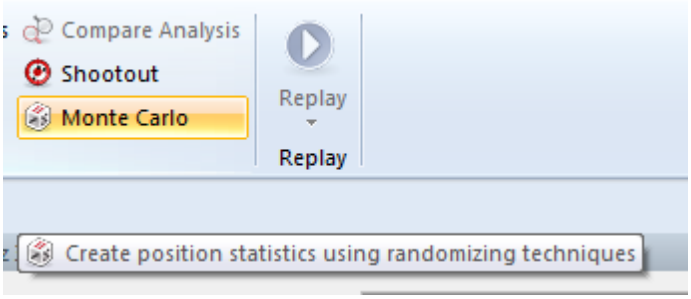
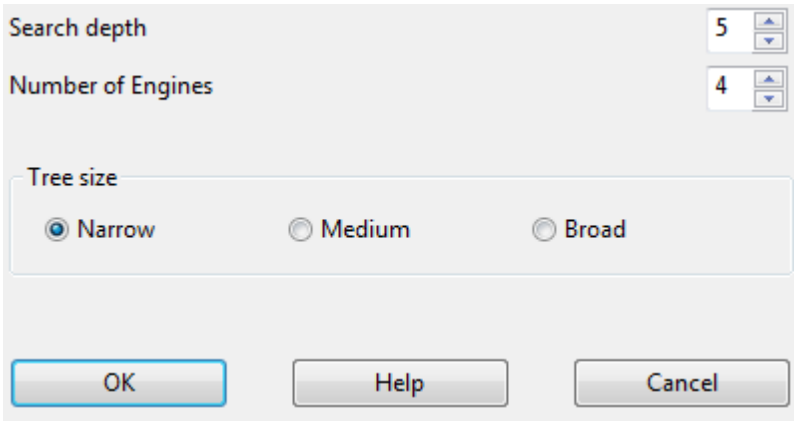
3.6.17 Monte Carlo

Analysis - Monte Carlo



To start a Monte Carlo analysis from a particular position, go to the Tools menu, select "Analysis", and then "Monte Carlo" from the submenu (note that this function will be in grey half-tone and unavailable unless you've already loaded a Rybka engine). The next thing you know, something startling happens: the game in your Notation pane disappears, to be replaced by the "Load book" button.



The first is the search depth, with a default of "5". This controls how far ahead (in half-moves, or "plies") the engine will look before making a move. For example, if you leave this at "5", the engine will look 2.5 moves ahead before making a move. Remember, the engine is going to be playing a lot of games against itself and storing the moves in the form of a tree, so the search depth is important. You must realize, however, that there's something of a tradeoff here; the higher you set the search depth, the more time the engine will need to make each move -- so you're trading time for depth. On the other hand, setting a lower search depth means that many more games will be played in a given amount of time, but that the moves themselves are likely to be more superficial.

Keep in mind, too, that you should use only odd numbers for the search depth, because chess engines tend to develop a tactical "blind spot" when made to analyze at even ply depths. Rule of thumb: odd numbers good, even numbers bad.

The second setting is the "width" of the tree. This is similar in some ways to the "Branching factor" in Deep Position Analysis and is another "space for time" tradeoff. If you create a "Narrow" tree, you won't see many alternative moves displayed in your game tree but the overall process of playing games and generating the tree will be

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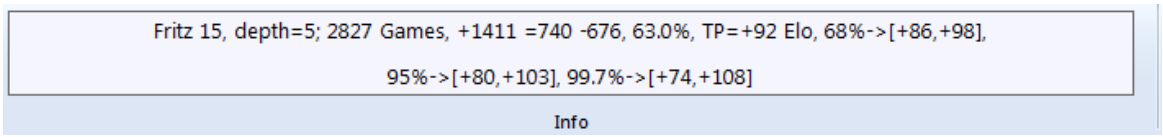
faster. "Broad" trees show more alternatives but take longer to generate (it requires more processor time and thus slows down the chess engine).

The software will load the engine and you'll get a dialogue to that effect. For a minute or so it'll look like nothing's going on, but then you'll see the tree view (your former Notation pane) become populated with data

This looks a lot like the game tree/opening book display with which you're already acquainted. This one acts a bit differently in the data it displays. You still have "N" for the number of games played (ten so far when I took this screen shot) and a numerical percentage of how well the move did from White's perspective.



#

Note that you can actually play through the moves of the tree while it's still being generated, too. Use the cursor keys on your keyboard to navigate through the moves (left and right to move forward and backward, up and down to select a move when multiple moves are displayed).

This display reminds us of the engine which is being used for the analysis and the search depth we set at the start of the process. We see how many games have been played so far and the results of those games.

You can let Monte Carlo analysis run for as long as you like. Remember that the more games you let the engine play, the more reliable will be the statistical results.

To stop the Monte Carlo analysis, click the "Stop" button (the little red button with the white "x" in the upper left corner of the Monte Carlo analysis screen). You'll see a

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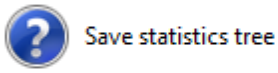
popup dialogue asking if you wish to save the tree which the analysis generated.



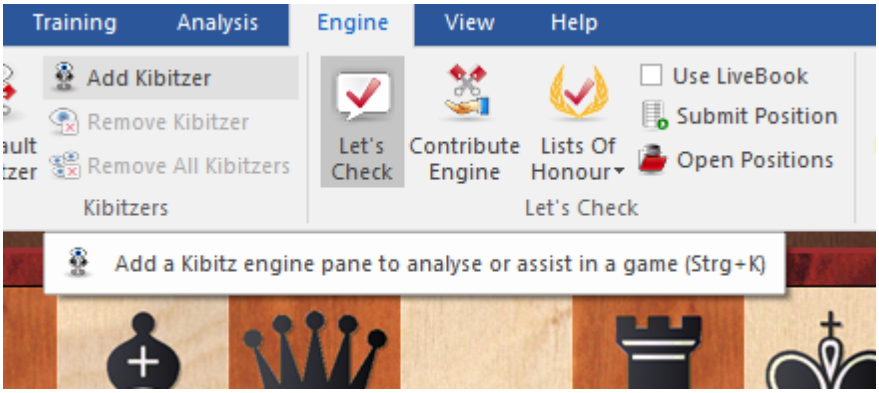
If you click "Yes", you'll get the standard Windows dialogue prompting you to pick a folder in which to store it and for you to give it a name. Note that all of the game moves prior to the point at which you started the analysis are also saved as part of the tree; in our example, all of the moves through 14.c3 will be saved along with the "Monte Carlo tree" which begins with Black's 14th move.

If you select "No", you'll simply be returned to the normal game window (board and Notation pane), but you'll notice that any moves you replayed in the tree while the analysis was being generated will be displayed as variations/subvariations in the Notation pane's gamescore.

All of that seems prety verbose, but it's really very simple: Monte Carlo analysis causes the Engine to play a large number of games against itself and then store the results in the form of a statistical tree.

3.6.18 The Kibitzer

Menu Engine Add Kibitzer (Ctrl-K)



A "Kibitzer" is a person who watches a game in progress without making any moves himself. A kibitzer is also notorious for giving advice and knowing everything better.

You can add a kibitzer by selecting an engine in the select box that appears.

A new engine window appears in which it can work parallel to the one already loaded. You can use one or more kibitzers (up to six) to help you in your game against the primary engine, or you can use them for a second opinion on a position you are analysing. Remember that they will be sharing the processor power, so the quality of analysis sinks with every added kibitzer.

Click *Remove kibitzer* or *Remove all kibitzers* to close the additional engine. You

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can also right-click a kibitzer and "Close" it.

Kibitzer cannot be combined with the "Explain all moves" window.

3.6.19 Visualize Search

Menu File- Options - Engine Visualize Search

Note: Some Engine do not support this feature!

While the program is thinking about a move, either during a game or during game analysis, the program gives detailed information in the engine window, for example the evaluation, the search depth and the best continuation line.

The variation board offers a display of the best line, which can be played through in the variation board.

The option " *Visualize Search* " goes one step further. During the Infinite Analysis (ALT-F2) it uses graphics to display not only tactical manoeuvres, but also possible plans for both sides.

This example shows how the function works.

The orange arrows show the plans that the progam prefers for White, the blue arrows show the plans that have been calculated for Black.

Possible destination squares are coloured green if they play a special role in the tactical manoeuvres. In the above example the square f5 is very important, and so the move f7-f5 is displayed as Black's main plan.

Note: This function is currently only available for the main engine, and is not supported by other engines..

It is recommendable to give the program more time to think in critical positions. The more time the program has, the more informative his resuts will be.

3.6.20 The Analysis board

The program has a special function that many users are not well acquainted with.

It is to be found in the menu "***View Analysis board***". You can also switch the analysis board on and off by pressing the key combination Ctrl-Alt-A.

The analysis board appears as an extra "pane" in the board window and can be used to analyse the game that is currently loaded. You can move the analysis board to a convenient place, as you can do with all the panes of the program – by grabbing the top of the pane and "docking" it on some other part of the screen.

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See also Let`s Check ..

Anyone who has worked with previous versions of Fritz may be forgiven for asking what the analysis board could possibly be useful for. After all the program in its regular layout offers some of the finest analysis functions available in current chess software. You can switch on one or more engines, let them analyse one or more lines, copy the main move or entire variations into the game notation with a single mouse click, you can lock the engine to a particular position and then continue studying the game while the engine is working. It is even possible to play through the main line the engine is displaying on a small variation board. And there is a wealth of additional automatic analysis functions, like blunder check, deep position analysis, shootout, compare analysis, etc. (all in the menu "Tools"). So why do we need an additional analysis board?

Well, one important advantage is that you have an additional board to work on. It is like using a pocket chess set when watching a GM game. You have the original position in view and can experiment with lines on the pocket chess.

The biggest advantage of the analysis board becomes clear when you are logged into the Chess server and are watching a game. Theoretically you could periodically "unplug" the transmission (by pressing Ctrl-U) and start analysing on the main board. But then you do not know when new moves are played. And once you plug back into the transmission the board jumps straight to the current position in the game. With the new analysis board things become considerably easier. You can watch the game and, without disturbing the position, try out lines on the second board.

There are a number of buttons below it to support the analysis. Here is a description of what each of them do.

- **Start** – this activates the analysis board (which is initially empty) and copies the position from the main board onto it. You can start moving pieces on the analysis board, using the engine to help you if you wish. The new lines appear in a copy of the

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main game notation, but the position on the main board remains unchanged.

- **Stop** – this ends the analysis session, empties the analysis board and jumps to the main game notation. If you restart the analysis board you will see that the previous analysis is still there.

- **? Sync** – this jumps back to the position on the main board, which is useful when you are in a deeply nested variation tree and want to get back to the original position quickly.

- **= Copy** – This copies the current game and all the analysis it contains into the analysis board.

- **! Move** – This copies the first move of your analysis to the main board. For instance if you are playing against Kommodo and using an analyis board on the side you can try out a line and then click ! Move if you decide to play it against the program.

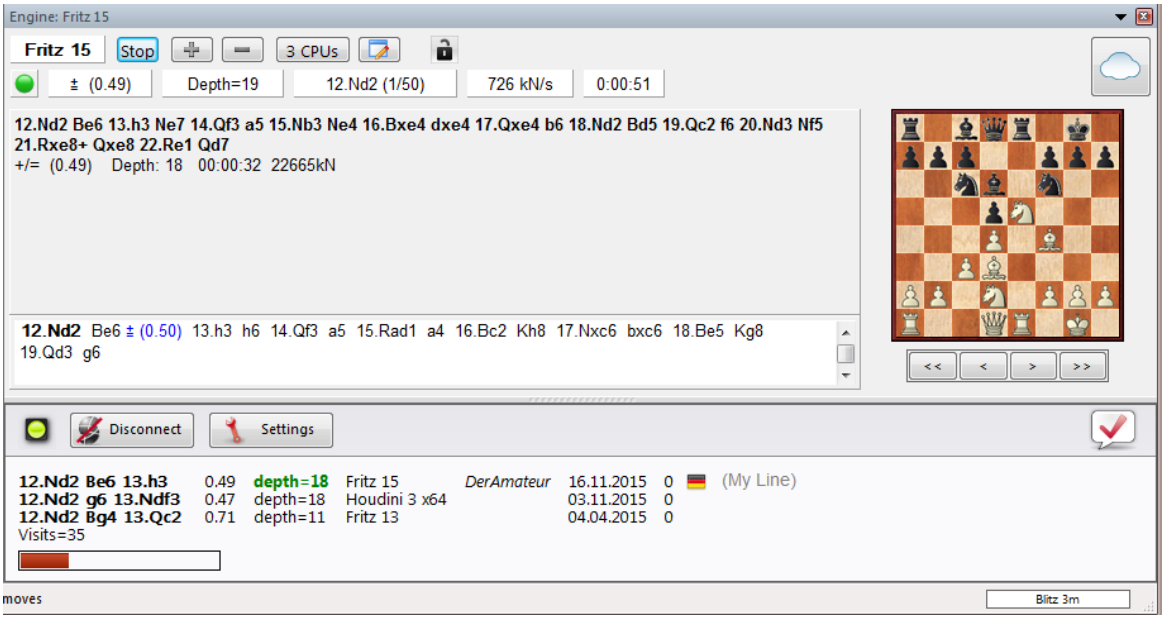
- **X Close** – This will close the analysis board. To reopen it in its original location press Ctrl-Alt-A.

Note that the analysis board is only there for quick, temporary analysis. The variations you can see in the analysis notation will not be saved together with the game.

3.6.21 Variation board

You can activate the variation board by right-clicking in the engine window and selecting "Variation board" from the popup menu.

The size of the variation board will vary with the size of the engine pane. The purpose of the variation board is to allow you to play through the best variation the engine has found thus far in its search.



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You'll notice a set of VCR buttons below the variation board; these are your controls for playing through moves on this board.

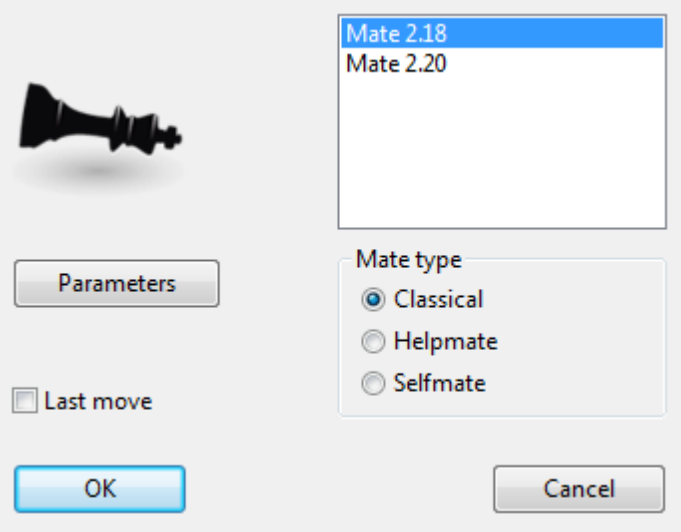
You can step forward and backward through the variation one move at a time by using the single arrow VCR buttons.

If you want to jump right to the beginning or end of a variation, you can use the double arrow buttons for that purpose.

3.6.22 Chess problems, mate search

Home - Levels Mate search (or Ctlr-M)

This allows you to solve chess problems ("White to play and mate in n moves"). There is a special mate solving engine which can also handle selfmates in which White must force Black to mate him, and helpmates, in which both sides co-operate to mate Black.



In the dialog box for the mate search, select an engine (only engines which are specialised for mate searches will be displayed) and specify the kind of problem you are solving.

"Parameters" allows you to set certain options, especially for very deep mate problems which would otherwise take too long.

- **"Heuristic search"** allows you to specify the maximum number of flight squares the black king can have.
- **"Threat with check"** specifies how deep a mate threat should be for it to be considered.

The program not only displays the key move of the problem, but also generates a complete solution, with all alternative defences by Black. If the problem has more than one solution (i.e., it is "cooked"), then alternate solutions will be given as lines to the first move of White. "Last move" specifies whether the last move of the problem,

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which is usually obvious, should be included or not.

3.6.23 Calculating Elo ratings retrospectively

Fritz and the previous versions offer the possibility of calculating Elo ratings retrospectively. The Elo system was introduced in 1970.

So it might be interesting to calculate retrospectively a rating for players whose career had run its course before the introduction of the Elo system.

This function can be found in the database window under *Home Database Rating*.

If the Start list is to be calculated, a database is requested (**Default.elo**). This database must be set up afresh. To do so, click on the button "Create new" in the file selection window. All other functions access the value of this file.

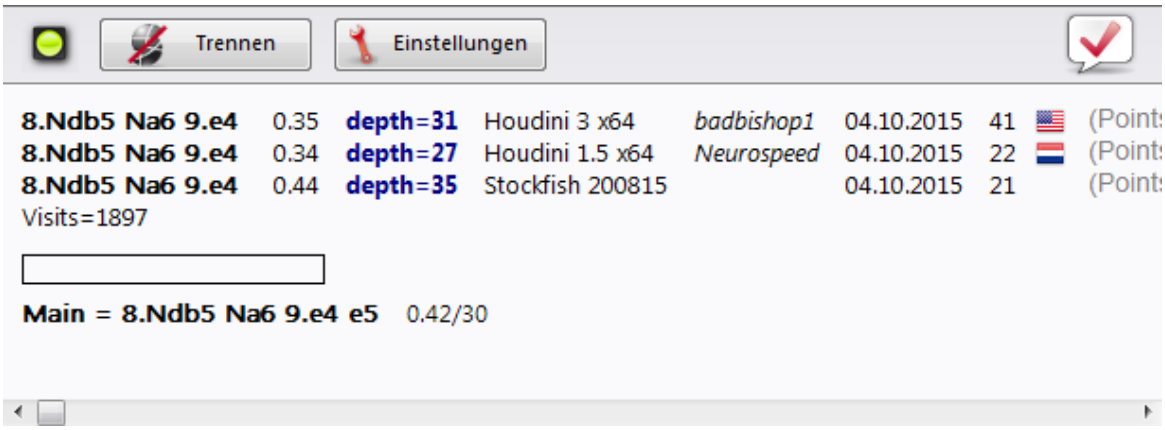
In order to calculate the following steps are required:

1. Select the desired games
2. Calculate a starting rating list
3. In the dialog box "Elo list" you can do any fine tuning considered appropriate.
4. After the settings have been defined by the user, you can save the Elo list.
5. For the next step, you can get the ratings calculated via "Set Elos in games".

3.6.24 Let`s Check

3.6.24.1 Description

"***Let s check***" is a completely new analysis function which will revolutionise the chess world for years to come.



Engine analysis has changed chess forever. This is so obvious that many aspects are now taken for granted. For instance, a slow engine on an old notebook does not always tell the truth, and yet people only wait a few seconds before uncritically

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making the recommended move. Popular positions are analysed by thousands of players over and over again. This means an immense amount of time and electrical enetgy, both of which are finite ressources.

The program offers help. Every position that has been analysed by anyone at any time is voluntarily saved on a server. The possible engine variations are then available to everyone who looks at this position. We call this system „Let's Check" because detailed analysis can be gained immediately without investing any time.

Whoever analyses a variation deeper than his predecessor overwrites his analysis. This means that the Let's Check information becomes more precise as time passes. The system depends on cooperation. No one has to publish his secret openings preparation. But in the case of current and historic games it is worth sharing your analysis with others, since it costs not one click of extra work. Using this function all of the program's users can build an enormous knowledge database. Whatever position you are analysing the program can send your analysis on request to the "Let's check" Server. The best analyses are then accepted into the chess knowledge database. This new chess knowledge database offers the user fast access to the analysis and evaluations of other strong chess programs, and it is also possible to compare your own analysis with it directly. In the case of live broadcasts on Playchess.com hundreds of computers will be following world class games in parallel and adding their deep analyses to the "Let's Check" database. This function will become an irreplaceable tool for openings analysis in the future.

When you store a variation in Let's Check you can add your name to it. If your analysis is later replaced by a deeper evaluation his name is then put in your place. Three variations are possible for every position. Whoever analyses a position deeply for the first time becomes the „discoverer", and his name is connected with the position forever, even if other users make a deeper analysis. Apart from common theory every position in chess can be „discovered".

There is an honours list for those who have won or discovered variations. Winning a variation is more valuable depending on how often it is visited and how deep the previous variation was. It is also possible to use Let's Check anonymously without entering your name.

Whether you are a beginner, a club player or a grandmaster. With the help of "Let's Check" every chess player can contribute to this database. Especially valuable: whoever analyses a position for the very first time wins the position for himself and his analysis is connected with his own name for the chess world. Who has won the most positions? With the help of deeper analyses you can win positions from other players and enter the honours list of "Let's Check". (All chess engines are allowed as analysis programs, whether single or multi processor versions).

With Let's Check every chess player has access to the current openings theory and the evaluations of the strongest chess engines. The program presents the complete openings theory as a statistics tree. The "LiveBook" shows for every position not only the complete statistics based on the weekly updated Chessbase Online Database (currently over five million games) but also how often a particular continuation was examined in the "Let's Check" database.

LiveBook ..

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Online Book ..

Analysing ..

Game analysis ..

Contribute Engine ..

3.6.24.2 LiveBook

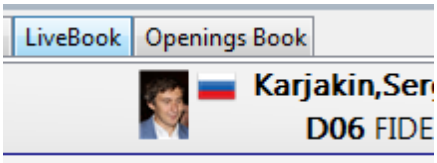
"

The Let's Check data can be used as an openings book. Since all the openings of the online database are contained the LiveBook is already the largest source of information for openings moves that have already been played. You can use this book to play or just to look up information. The LiveBook is „live" because it can change from second to second. Every position that is checked with the LiveBook is immediately available together with an evaluation.

When a top game is broadcast and the viewers are using LiveBook, a full analysis with evaluations is available in the LiveBook when the game is over.

Anyone can add moves to the LiveBook, regardless of how sensible they are. Just like a human brain the LiveBook forgets information that is unimportant and rarely accessed.

Click on the tab *LiveBook* in the notation window.



If you are connected every move you make is stored, so click on *Disconnect* for private preparation. Data is only transferred to the LiveBook when the connection light is green.

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The information about the position is displayed in columns.

- **Move**: shows the possible moves in this position.
- **[%]** : The frequency with which this move was played. This is based on the games in the LiveBook.
- **Evaluation**: The average of the evaluations added by chess engines.
- **Games:** The number of games in which the move was played.
- **Result**: The average performance of the move.
- **Elo-AV**: The average Elos of the players in the games used.
- **Dates**: The last analysis added to the LiveBook.
- **Visits**: The number of accesses to the position that is being displayed.

If a top game is being played on the chess server and lots of viewers are using Let's Check, then when the game is over it is available in full in the LiveBook with relatively deep engine analyses.

Anyone can add his own moves to the LiveBook, sensible or not. Just like a human brain the LiveBook forgets unimportant material after a while, i.e. information that is rarely updated.

When the engine is running additional information can be found in the engine window when the Let's Check function is active.

Infoboards in the LiveBook

In the LiveBook tab there are two miniature boards.

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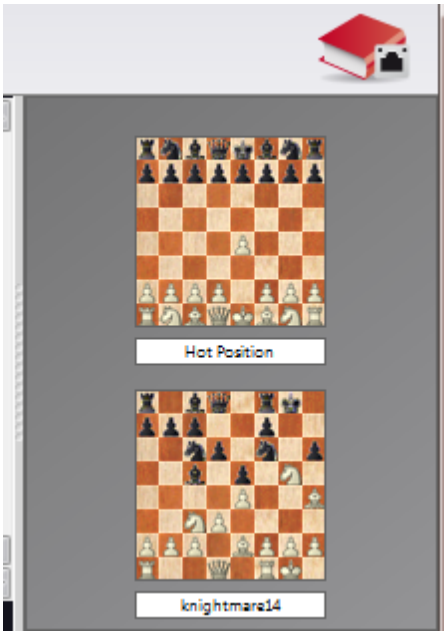
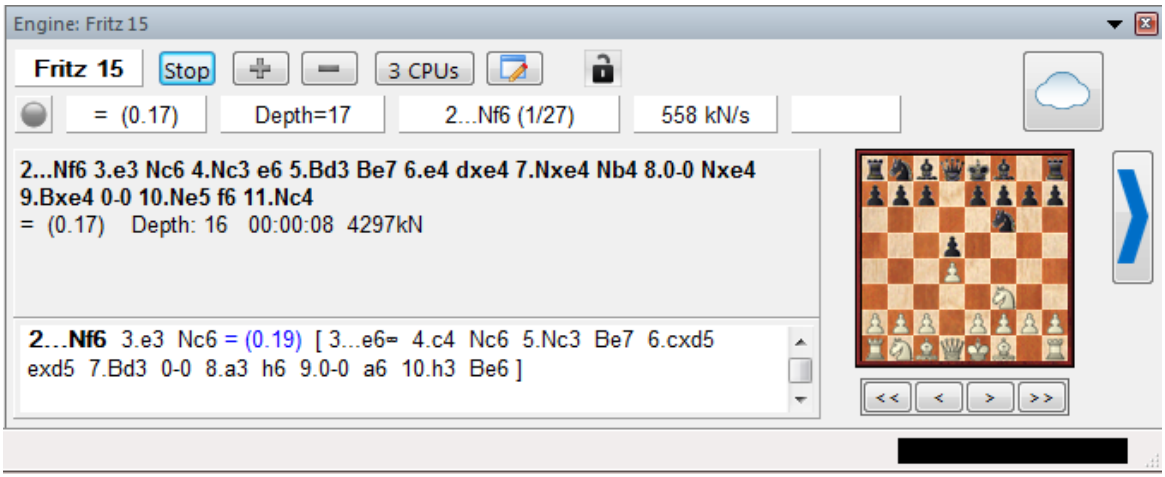


The left or upper mini-board shows the position which is currently being accessed the most. The right or lower mini-board explains the current chat. If it says, for instance, "DerAmateur has won a position"", the position is displayed. Clicking on a line in the chat window displays the position. Clicking on the board copies the position.

3.6.24.3 Start Let`s Check

Click on the large blue right arrow in the engine window to start Let's Check.



Alternatively you can start the analysis with the *menu Engine - Let's Check*.

Click on *Settings* to enter login details for the chess server to add your name to your analysis.

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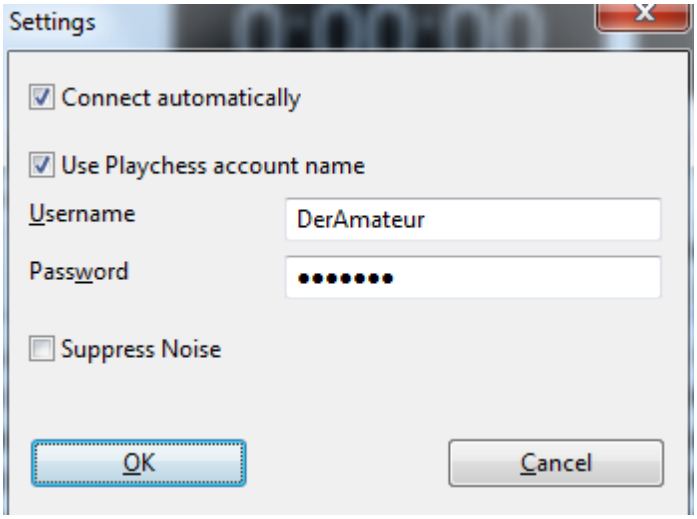
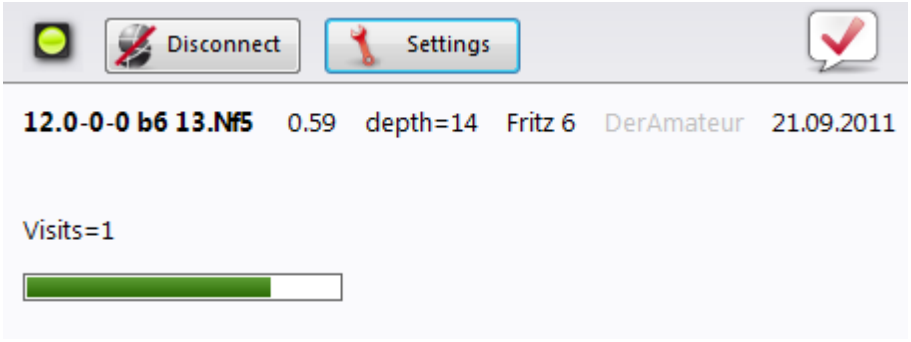


To work privately click on "*Disconnect*". When the connection button is green you are connected with the server. See also ...



Whoever saves a variation in Let's Check can have his name added to it. If a variation is replaced by a deeper analysis the name is replaced with that of the other person. Up to three variations are allowed for each position. Whoever is the first to analyse a position sufficiently deeply becomes the positions "Discoverer". His name is always connected to the position, even if other users later add deeper variations.

You win a variation if you replace the second or third variation in the list of three variations. You win a position if you replace the first variation in the list. The first variation is not deleted, it just drops down to the second place.

The creation date of the variation is displayed next to the discoverer's name.

The value next to the national flag shows how often a variation was confirmed. The

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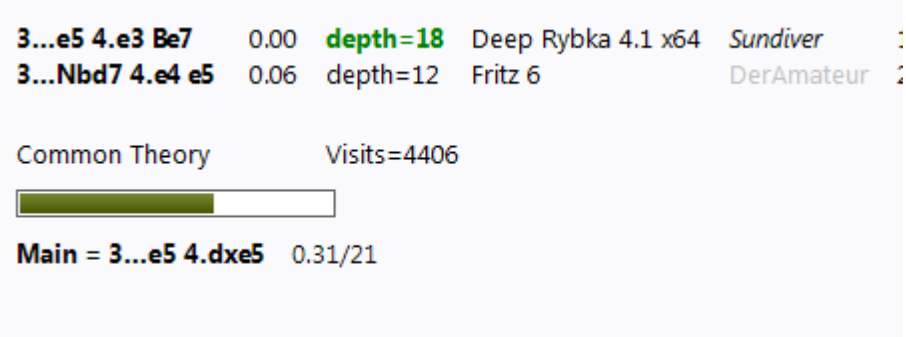
higher this number is, the more trustworthy the information is.

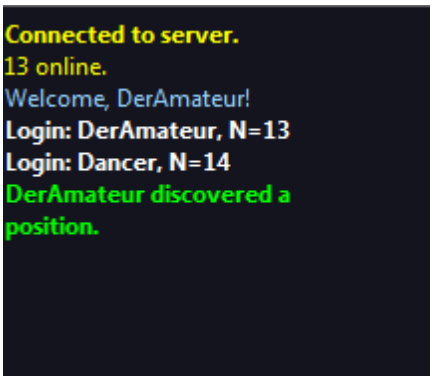
The window also displays whether the position is standard openings theory (main), the number of visits and the main variation.



Progress Bar

Deep analyses are very valuable. The progress bar shows roughly how long it will be until the position has been analysed enough for your name to be added to the book.

As soon as the analysis has been accepted this is displayed in the chat window.



Note: Apart from the already known openings theory every position in chess can be "discovered".

There is an honour list for those who have won positions, i.e. who have named positions. A win is more valuable the more often a position was visited and the deeper the previous variation was. It is also possible to use Let's Check anonymously without adding your name.

Discovering a position

More calculation time is needed to "discover" a position than for standard analysis. The green progress bar jumps back slightly when the next step is displayed.

The system has three levels:

1. Fast calculation (black display)

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2. Deep calculation (green display)

3. Very deep calculation (Discoverer, only the first)

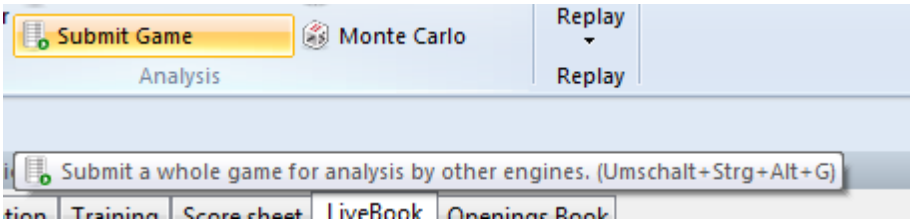
Deeper calculations can overwrite the variation, but the name of the person who discovered the position remains. The window also shows whether the position is part of common chess theory, the number of visits, the main line and the depth.

The entry "**My Line"** has to do with the variation that has been discovered (3 half moves) and is currently being displayed in the Let's Check window. The position's discoverer is stored separately and has nothing to do with this information.

The evaluation of the analysis is also displayed.

3.6.24.4 How should a game be analysed with Let's Check?

A deep analysis that would normally last over an hour can now be carried out in a few minutes.



The condition for this is that you have already won enough analysis credits by contributing your own engine. The credits system achieves a balance between giving and taking analysis power. For every position that you analyse while contributing your engine you win 1 credit. If you analyse a complete game you win about 1.3 credits per position. This difference is to benefit the server's own interests.

As far as the analysis is concerned it is relatively uninteresting that the evaluations come from different engines. On the one hand today's top programs are so similar that you almost long for a different variation. On the other hand it has no chess value to trust differences of 1/100 pawn values. Engine analyses are subjective because they have been tuned in games of machine against machine. They should only be used as guidelines in non-tactical positions.

How can I access the results of a game I've submitted all at once?

In the chat window of the Live Book you can see how many positions have already been analysed. The first results usually arrive after about a minute. As soon as the game is finished select *Let s Check Analysis* in the Analysis tab and click "Add".

All the calculated variations will be inserted in the game notation.

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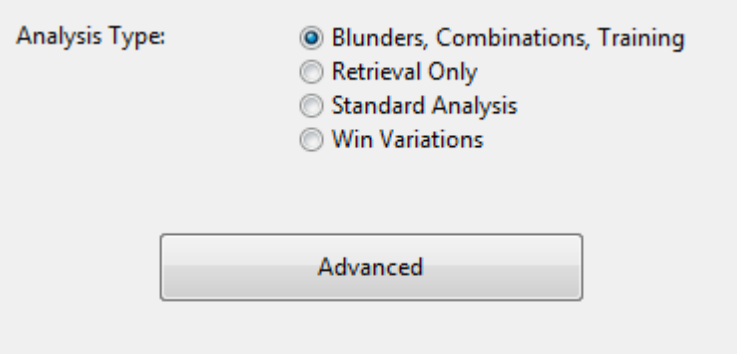
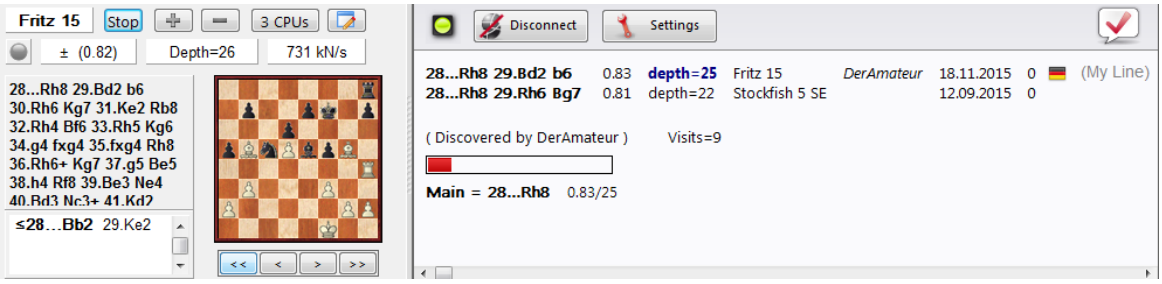


This access of variations is very practical after live games broadcast on the chess server have finished. Games being watched by many viewers are usually available immediately after the game with deep analysis.

3.6.24.5 What do the green, blue and red letters for the depth mean?

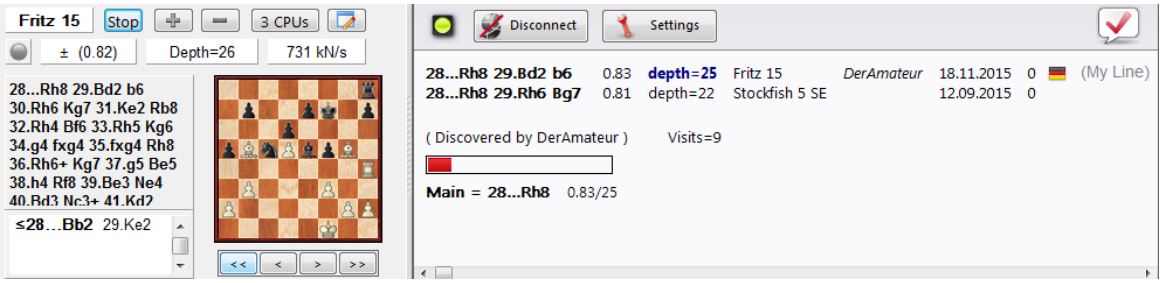
Let's Check recognises three levels of evaluation depth. The "green level" is the lowest and needs about a minute of calculation on a modern computer with a deep engine. Evaluations below this level are ignored when choosing a main line.



The "blue level" is the depth that is needed to discover a position. The "red level" leads to the message "Deep Analysis" in the Chat window. On a modern computer with four processors this can last up to an hour.

3.6.24.6 Why does the progress bar often jump back after reaching 100%?

The progress bar shows how far you are from reaching the next goal.



This can be the depth to win a variation. As soon as this has been achieved the progress bar shows the time needed to win the next variation.

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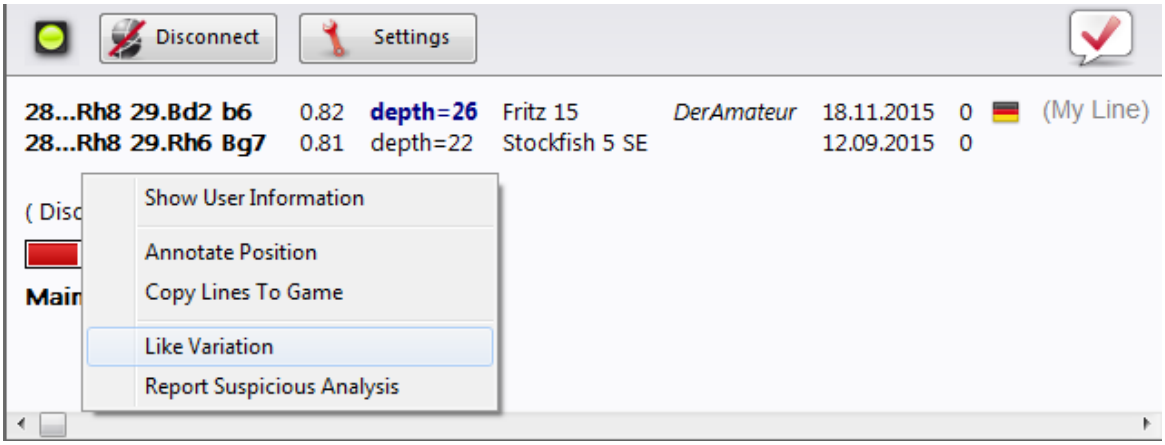
When there is nothing left to win the depth goals for a position have been reached and the message "Deep Analysis" appears in the Chat window of the Live Book window.

3.6.24.7 Let's Check Server Statistics

You can view the statistical information in real time at any time.

3.6.24.8 Let's Check context menu

Right clicking in the Let's Check window opens a context menu with various functions:



Show User information: This displays information about the user whose analyses have been sent to the Live Book. This is only possible if he has a user name on the Playchess.com server. In the dialog window there is a section containing the statistics. This shows the number of points the user has, and the number of variations he has won. The number of points depends on the value of the positions that have been analysed. The window only contains the total points reached. The number of variations is a number that can change at any time, if another user stores a deeper analysis for this variation. The window also shows how many Likes the user's lines and comments have been given by other users.

Annotate Position: This inserts the analysis of other users into the game notation. Right click in the Let's Check window and then click on "Annotate Position". This copies the analyses from the Let's Check database nested up to four levels deep. Only variations are used that have at least a "green level".

After clicking on the function the evaluation is copied into the notation.

Copy lines to notation: This copies all existing variations (not just the selected variations) into the notation.

The following is an example of copying lines into the notation:

What does "Engine/Game Correlation" mean at the top of the notation after the Let's Check analysis?
This value shows the relation between the moves made in the game and those

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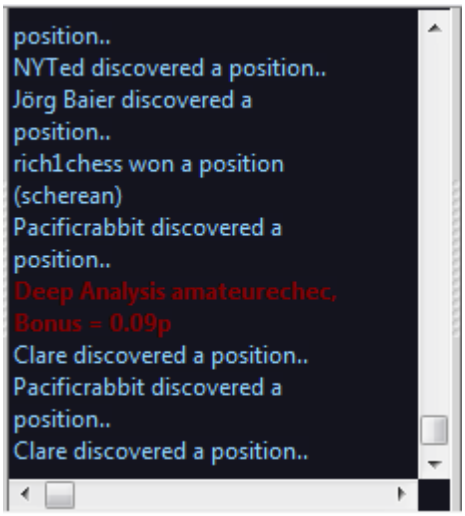
suggested by the engines. This correlation isn't a sign of computer cheating, because strong players can reach high values in tactically simple games. There are historic games in which the correlation is above 70%. Only low values say anything, because these are sufficient to disprove the illegal use of computers in a game. Among the top 10 grandmasters it is usual to find they win their games with a correlation value of more than 50%. Even if different chess programs agree in suggesting the same variation for a position, it does not mean that these must be the best moves. The current record for the highest correlation (October 13th 2011) is 98% in the game Feller-Sethuraman, Paris Championship 2010. This precision is apparent in Feller's other games in this tournament and results in an Elo performance of 2859 that made him the clear winner.

Like Variation/Report Suspicious Analysis: These functions send a report about the evaluation of the selected variation to the server. This is also displayed in the Chat window of the Live Book.

3.6.24.9 Information in the Chat window

In the Live Book's Chat window you can see important information from the server.

New comments are displayed, and users are also displayed who discover a position or win a variation.



There is also a context menu for the Chat window.

Show User Information: This displays detailed information about the user whose engine analysis was entered into the Live Book.

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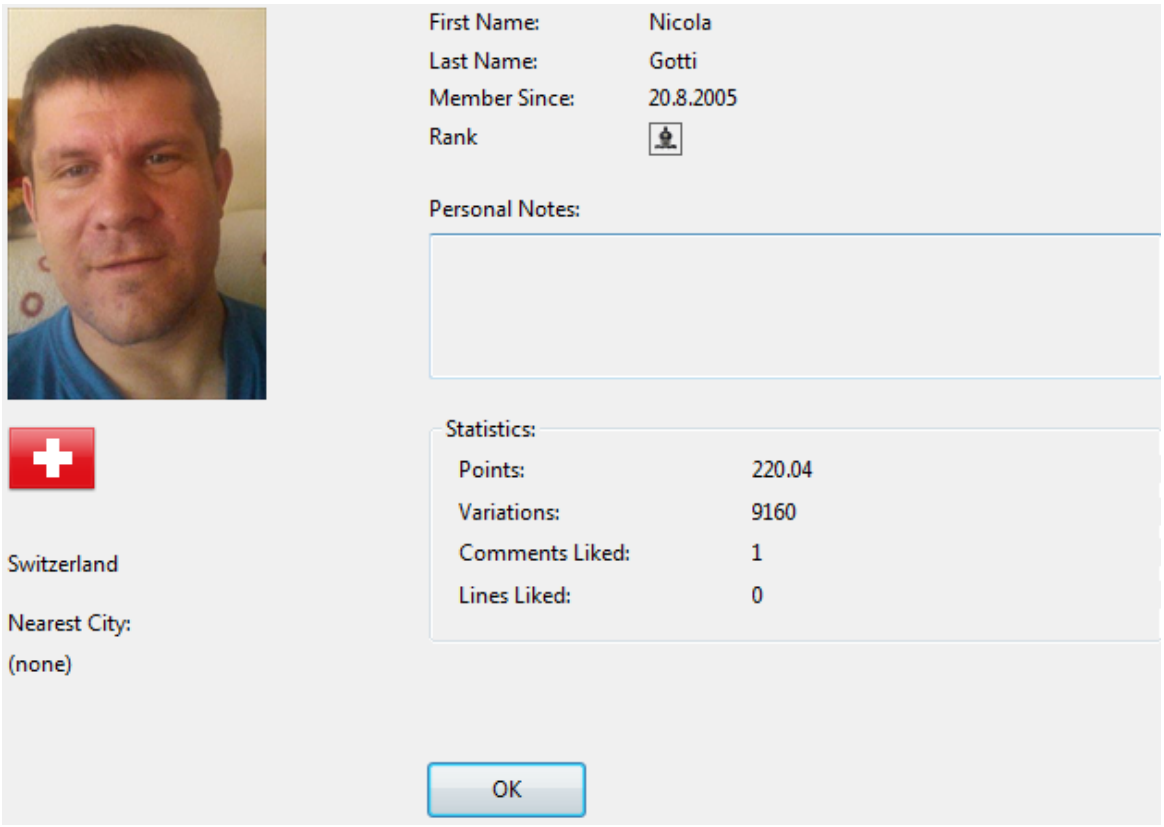

The number of points, the number of variations and the ratings are displayed. The number of points depends on the value of the positions that have been analysed. The window only contains the total points reached. The number of variations is a number that can change at any time, if another user stores a deeper analysis for this variation. The window also shows how many Likes the user's lines and comments have been given by other users.

Clear: This empties the contents of the Chat window.

Don't scroll: This freezes the Chat window in its current position.

Font: You can choose a different text font to display the text in the Chat window.

Important information in the Chat window

Warning: N variations = 3

This message appears when the user is running his chess engine in multi-line mode. This results in an analysis which isn't as deep and is of less value for Let's Check, since it profits from analysis that is as deep as possible.

Information about variations that have been won

Variations can be both discovered and conquered (won). In the Chat window it is often stated that a variation has been won. What is the meaning of the name of the user that is in brackets?

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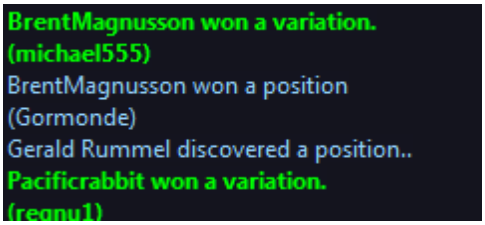
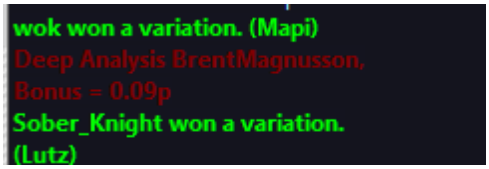


This message tells us that the the other user has sent a deeper analysis to the server that has replaced the variation previously sent.

Information Deep Analysis
"Deep Analysis" goes one step further than discovery, and means that the user has made an extremely deep analysis.



The user also receives bonus points for the ranking list as described.

3.6.24.10 Commentaries in the LiveBook

The evaluations in Let's Check come exclusively from chess programs. Every position in the LiveBook can be given a text commentary in any language with a maximum length of 139 characters.

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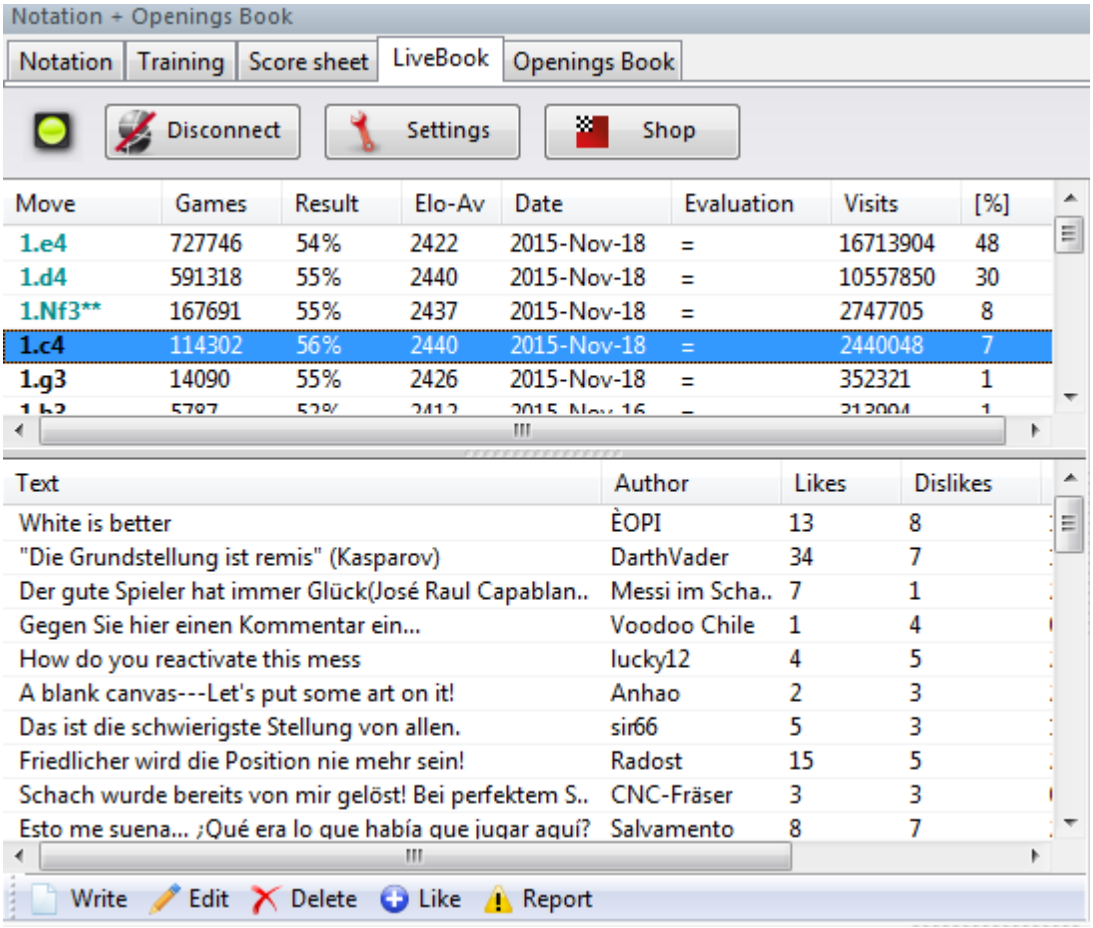
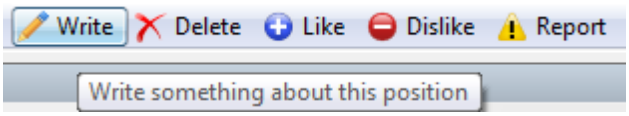


Other users can rate these commentaries with either "**Like**" or "**Don't Like**". Commentators who are often praised are weighted more and their texts are moved to the top.

Texts are only allowed that have to do with the chess content of the current position and do not contravene the copyrights of other authors. Anyone who breaks these rules will be ejected without a warning.

Use: Depending on the size of the LiveBook window the text entry field is at the right or at the bottom. Clicking on "***Write***" opens the input dialog.



Clicking on a flag selects the language.

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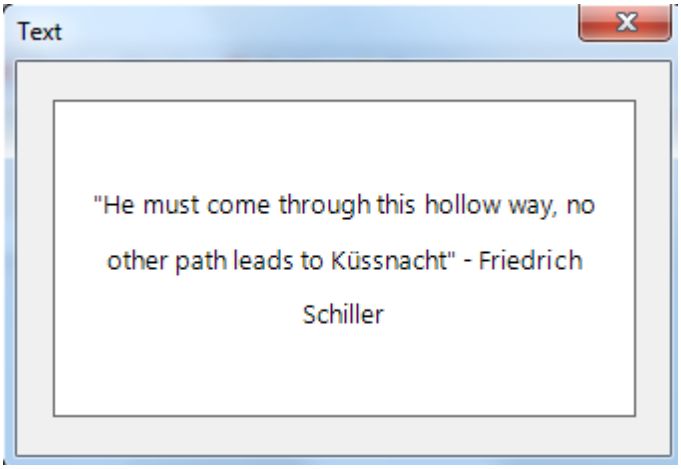
The commentary can be deleted or edited until someone else rates it.

Tip: Clicking on a commentary opens it in a preview window to make it better to read.



The commentary is now displayed clearly in a commentary window.

You can add your own text comment to the Live Book, if the position has not yet been processed, using the menu "Write".

3.6.24.11 Using the LiveBook as the Openings Book

The LiveBook has not been created only as a source of information. It can also be used as an openings book in games played against the chess program.

Start a new game by typing **Ctrl-N**.

Activate the tab "Openings Book" and select the option "LiveBook".

Play the first move. The chess program answers automatically, and because of the

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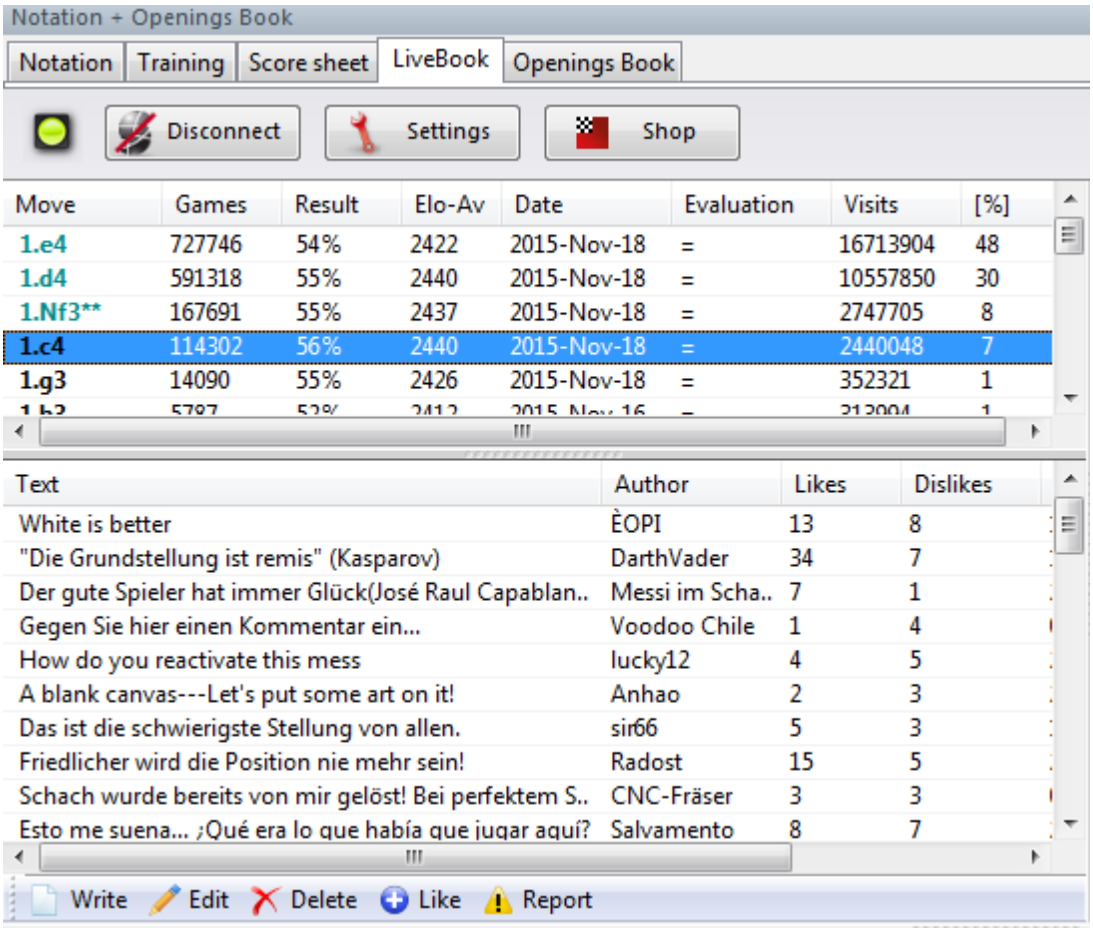
fast server the opening moves are played without any delays.



Since the LiveBook is based on an enormous online database the the computer analysis of many users the program is working with the optimum theoretical conditions in the opening phase.

Tip: If an openings book is also available on the hard disk this can be directly compared with the statistics of the current state of the LiveBook. Click on the tab "Openings Book" and adjust the playing possibility of the book on the hard disk.

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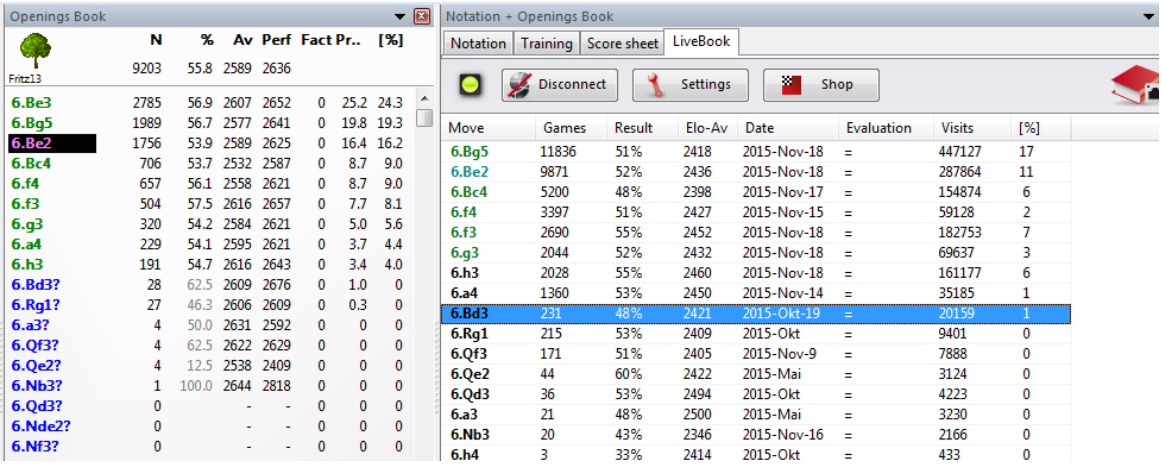


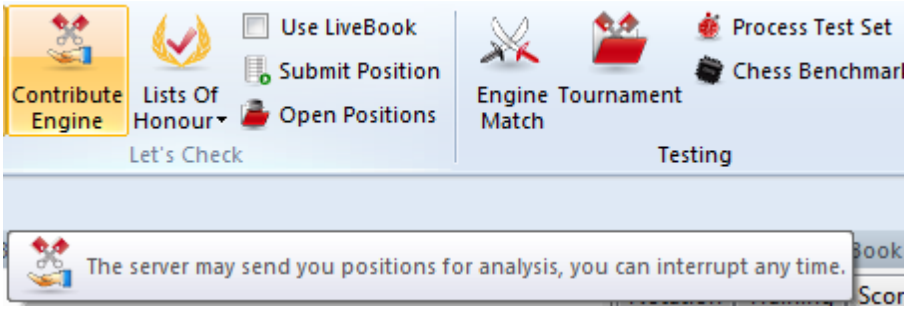
The LiveBook is based on an enormous online database and the computer analyses of other users. This means the program is playing with the optimum theoretical conditions in the opening phase.

If an openings book is also available on the hard disk this can be directly compared with the statistics of the current state of the LiveBook. Click on the tab "***Openings Book***" and adjust the playing possibility of the book on the hard disk.

3.6.24.12 Networked Analysis

Whoever wants to easily climb up the Let's Check Honour List should temporarily "contribute" his engine to the community. The system thinks like one global worldwide chess brain about positions that seem to be interesting to people at the moment, or which may become interesting soon. If you have logged into the Let's Check server the positions may be conquered by you or even discovered for the first time

Tab Engine - Contribute Engine



After this function has been started the engine that the user has "contributed" is used for the analysis of positions that are picked by the server. The server chooses positions based on different criteria, such as their current interest. By using "Contribute Engine" you are aiding in the creation of an online book for other users.

It is possible to abort this function at any time. You can do this by closing the window, starting a new game, or by clicking on the "*Contribute Engine*" button a second time.

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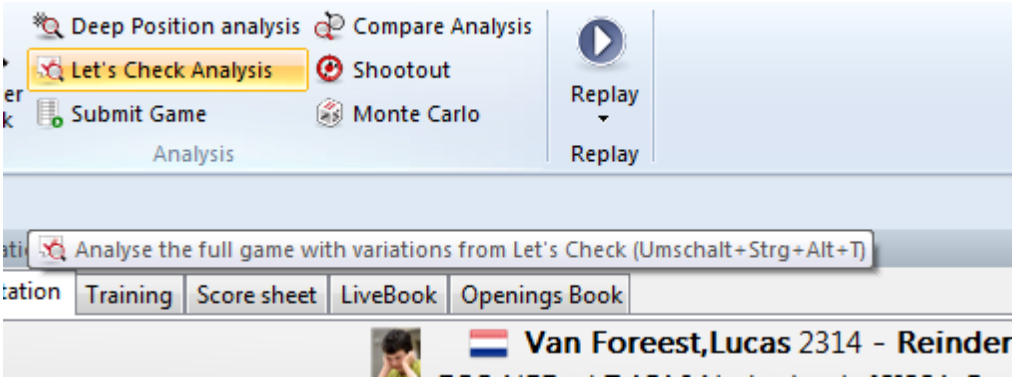
It is also possible to suggest positions for analysis. These positions are presented to the „contributed" engines. Whoever contributes an engine collects „credits". If your credits account is in the plus positions that you suggest for analysis are treated with a high priority, and they are chosen sooner, Even if you have overdrawn your credits account you can suggest any number of positions, but they will be put at the end of the queue and may even expire before it's their turn.

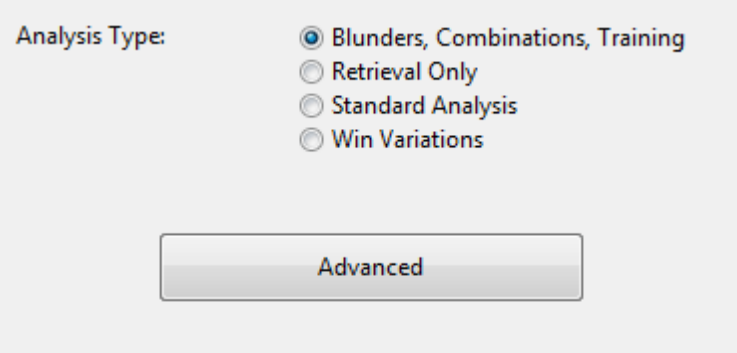
3.6.24.13 Game analysis with Let's Check

Menu Analysis - Let's Check Analysis



Let's Check can quickly comment a game with engine variations. If all the positions are already known the full analysis only lasts a few seconds. Blunders are marked with question marks, the best known moves are marked with exclamation marks.

There are different types of analysis:



Blunders,Combinations,Training analyse for those criterias

"**Retrieval Only**" just fetches known variations from the server and does not make any calculations.

"**Standard Analysis**" analyses until the minimum depth is reached to enter a person's name. If a variation with this depth already exists no calculations are made.

"**Win variations**" calculates until at least one variation has been won.

The *minimum and maximum* calculation time per move limit the calculation time.

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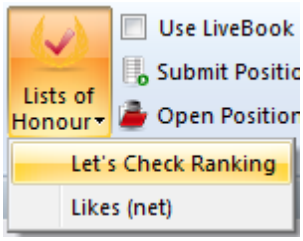
Tips:

a) After an important live game deep analyses are probably already available for the whole game.

b) If you analyse famous historical games using "Win variations" with a large minimum time it is possible that you will "discover" new positions.

3.6.24.14 Honours Lists

The program shows two rating lists for the usage of the online analysis.



Weighted Rating List for Let's Check

User	Points
jeroen	242.46
mw working	184.79
Piper	99.34
frühlingstraum	95.24
Matthias	70.68
mw testing	63.27
Bertman	57.63
Christian Gorals	43.42
Sundiver	32.26
Ludwig	28.25

The rating list is based on the frequency of the engine analyses and the search depth.

"**Likes**" shows a list of the rated commentaries of a user.

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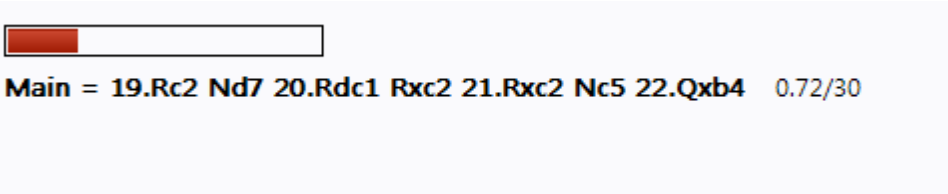
User	Likes (net)
DarthVader	7
Supermichi	4
Radost	4
Michael Enderle	3
Salvamento	2
Kendo	2
Matthias	1
André	1

3.6.24.15 Speedindex

The speed index is a relative value. It is based on the speed of the computer used by one of our developers.

This value is relevant to the user because it gives an idea how long it will take to calculate a variation.

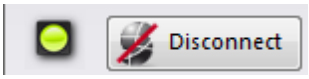


The lower the number is the longer it will take until a variation becomes green.

3.6.25 Common questions Let`s Check

3.6.25.1 Is my analysis always sent to Let's Check?

No. Clicking the button "Disconnect" breaks the connection and no more data is sent via the Internet.



To do this the program must have been activated with a valid activation key.

When Let’s Check is active engine analysis is sent to the database, and already existing analyses are received. All queries of a position are stored in the database and counted as “visits”. No other data is sent, and no complete games.

If information has been sent it means the user has entered this move notation with the Let’s Check feature running.

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3.6.25.2 Can Let's Check be used anonymously?

Let's Check can be used without logging into a Playchess.com account.

In this case you will receive no information about who analysed which position.

3.6.25.3 What does it cost?

The use of Let's Check is included in the price of the program. It is guaranteed that the program will support this feature until the end of 2016.

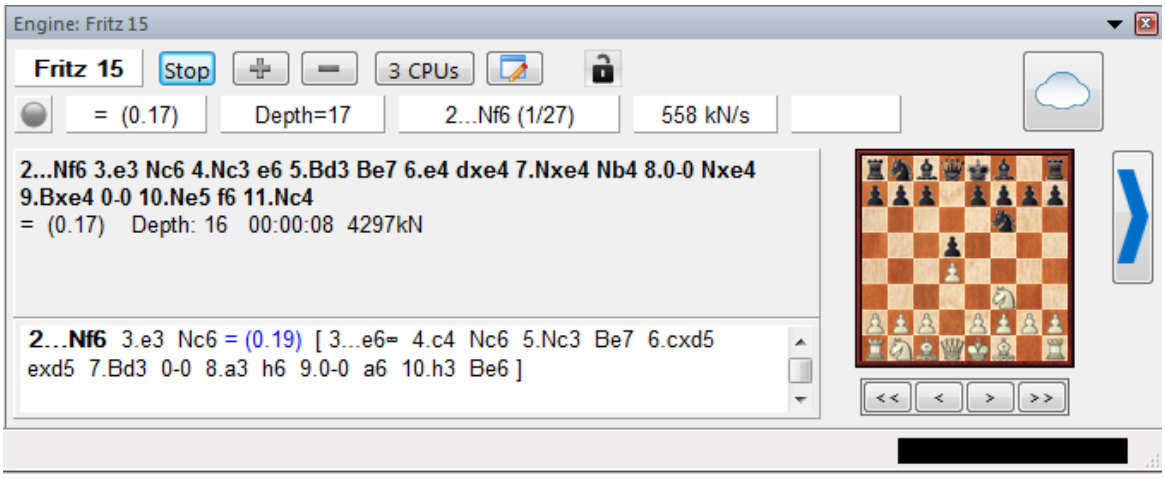
3.6.25.4 What difference does the power of my computer make?

The program regularly performs speed checks on your computer. Fast computers are at an advantage. By contributing your engine you can process more positions in the same time and win "credits".

Deep engines also have a strong advantage. Analysing in multi-variation mode needs more time. If you log into your Playchess.com account your "speed index" will be displayed in the Chat window.

3.6.25.5 What engines are allowed?

Every engine that can be used in the User interface can be used for Let's Check.



3.6.25.6 Can variations and evaluations be manipulated?

Since Let's Check is open for all engines it is possible that old, bad or manipulated engines can be used. Destructive content is always possible whenever people can share content in any form of online community.

The hardware power and the processing time of variations play a role, so it will be difficult to falsify an analysis even if an engine has reported having made the deepest analysis.

In the Let's Check window we also see how often a variation has been verified by other users. The system cleans itself, and so unverified variations and the obsolete

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evaluations of older engines will disappear with time.

3.6.25.7 Can senseless moves be input and analysed?

All legal positions and moves are valid for analysis. Rarely visited moves without deep analysis expire after a while.

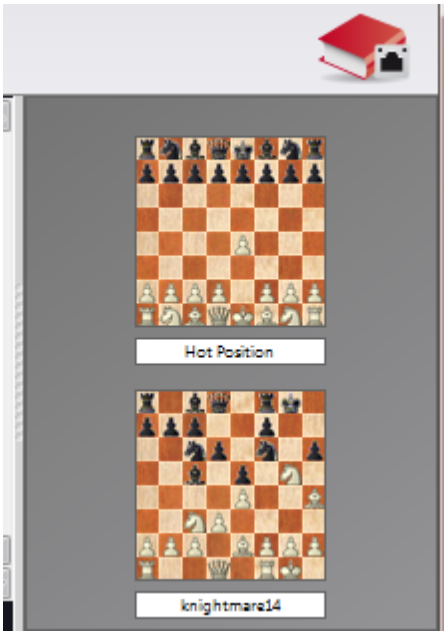
If you don't want to see any senseless moves you should check the option "*Hide rare moves*".

3.6.25.8 How are the Let's Check honours lists created?

Points are awarded for winning a variation. The number of points depends on the popularity of the position and the time spent calculating it. The starting position is the most valuable position because it is visited the most. If you lose a variation to someone else you lose some of the points you were awarded for winning this variation, so your points can fall when you are not active.

3.6.25.9 What do the two diagrams in the LiveBook window mean?

The left (or upper) diagram shows the most popular position, i.e. the position that is being analysed by the most visitors. The right (or lower) diagram shows positions that have been reported as discovered or won in the Chat window.



Clicking on a won/discovered message in the Chat windows displays this position. This position can be copied into the main board (Home - Paste Position). Then the moves of the variation can be played backwards, if they are known to the system.

If the first move of the engine variation leads to a position which also has a deeply analysed engine move this is added to the "main line". This is repeated until no more positions are found or a length of 10 half moves is reached.

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3.6.25.10 Can a text commentary be edited or deleted?

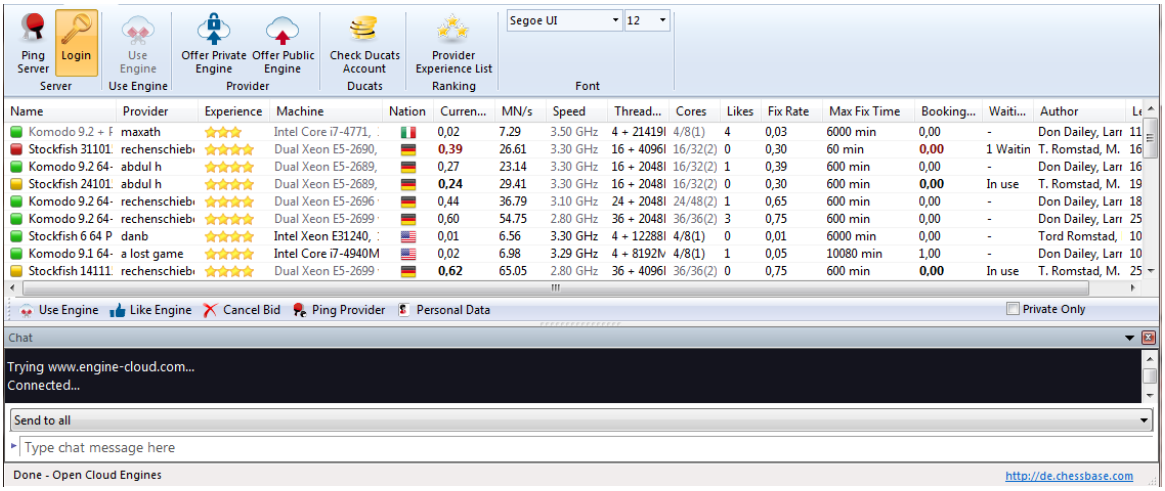
You can edit or delete your own comments until someone else clicks "Like" or "Dislike". Comments can be changed by right clicking on them.

Administrators can correct spelling mistakes or delete comments if they violate copyrights or do not make a chess-related comment on the position. Copyright is deemed to to have been violated if comments are taken from a source that exceed the amount of usually accepted quoting.

3.6.26 Engine-Cloud.com

3.6.26.1 Server Engine-Cloud.com

The new server ***Engine-Cloud.com*** offers a groundbreaking innovation for analysis with chess engines. It is possible to use the Internet to access chess engines that are running on other computers and use them for your own analysis. *Engine Cloud* is ideal for people who have several computers and would like to combine them for detailed analysis. It is also possible to run an engine on your computer and offer it to other users in the Cloud.



- Increase the quality of your analysis by using different chess engines on different computers, combining the results in a single board window. That is just as comfortable as if you were running the engines locally on your own computer.

- If you own several computers you can use them with Engine Cloud to create a single analysis. When you do this you have all the ressources of the available hardware and software at your fingertips.

- It is possible to remotely access an office computer and use its chess engines in the Interface as if they were stored on your own computer.

- This system offers many advantages to tournament players. They can travel to a tournament with a relatively weak notebook. In between rounds they can use Engine Cloud to analyse positions with the more powerful computers that they have at home.

- Chess engines are extreme applications that demand a computer's complete power.

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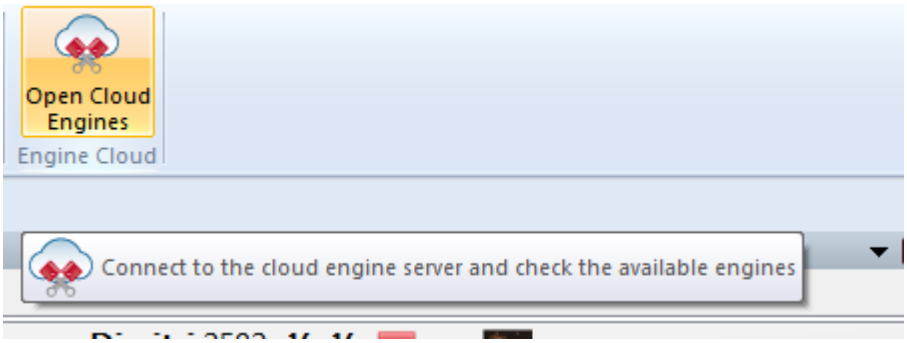
This means that a lot of energy is needed. If you work with a notebook a lot you can use the computing power of other computers to prolong the life of your battery and still use the maximum power for analysis. Another advantage is that the fan doesn't have to be used so much, so the computer runs more quietly during the analysis.

- Powerful computers cost a lot of money. By using Engine Cloud you can pay a small fee to use top engines running on extremely powerful hardware. You can decide for yourself how often you want to use these ressources, so you don't have to invest a lot of money in expensive hardware to make first class analyses.
- For complex analyses you can access several machines at the same time as kibitzers, each running with full power.
- If you own fast hardware and top engines you can use Engine Cloud to offer your ressources to other users for a small fee.
- You can use Cloud Engines to do anything that you would use local machines for, such as analysis, engine matches, or for games in the the Engine Room at Playchess.com.

3.6.26.2 List View

After logging into Engine Cloud with your ***Playchess.com account*** details you see the start up screen of the server.



Here you can offer engines, and you can see a list of the Cloud engines offered by other people.

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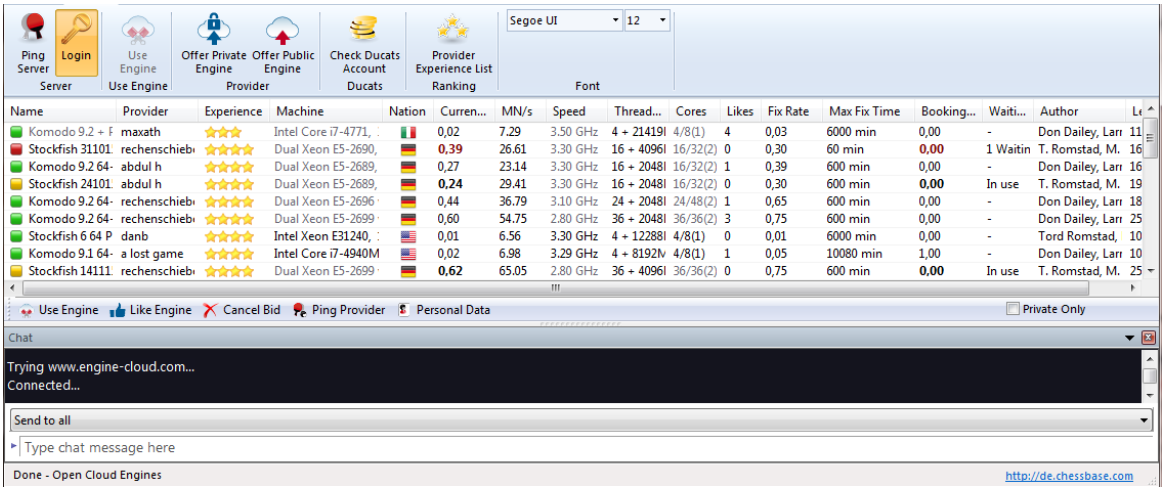
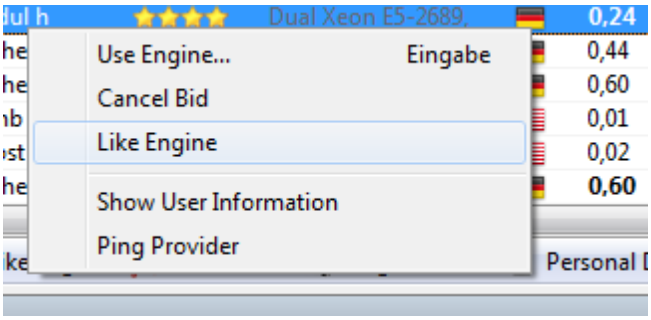
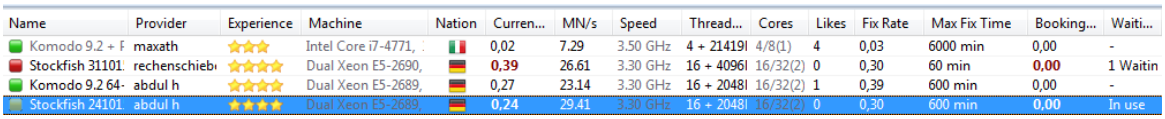


The list is ordered into columns. By right clicking on a column header you can configure the list to your own requirements.



The following information is offered in the columns of the List View.



Name The name of the engine that is being offered.

Provider The name of the Playchess.com user. You can right click on a column and click on Show User Information.

Experience The experience rating of the user. It is based on the usage of the engine, the number of different users, the number of Likes, and the amount of ducats that have been earned. You can see also the quality of the Internet connection.

Machine The hardware configuration of the computer being offered.

Nation The nationality of the provider.

Threads + Hash The number of processes that are used by the engine, followed by

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the size of the hash tables.

Cores The number of cores and threads that are being supplied by the provider. The example shows that 4 cores with 8 threads are being offered in 1 processor.

MN/s The performance of the Clound Engine in meganodes per second.

Likes The number of positive ratings of the user configuration.

Current Rate The price per minute for the use of the engine, as decided by the user.

Fixed Rate The fixed price per minute, as decided by the provider.

Max Fixed Time The time limit for the use of the engine at the Fixed Rate. At the end of this time the user can be outbid.

Booking Fee The one time booking fee, which is independent of the time used.

Waiting The number of users that are waiting to use the engine, in the order of their offer for using the engine.

Author The name of the developer of the chess engine.

Let`s Check The speed index for the access on the Let's Check server. The higher the index is, the faster green entries appear in Let's Check.

Some information in the list are displayed in different fonts and colours.

Name	Provider	Experience	Machine	Nation	Curren...	MN/s
Stockfish 31101	rechenschieb	★★★★	Dual Xeon E5-2690,		**0,39**	26.61
Komodo 9.2 64-	abdul h	★★★★	Dual Xeon E5-2689,		0,27	23.14
Stockfish 24101	abdul h	★★★★	Dual Xeon E5-2689,		**0,24**	29.41
Komodo 9.2 64-	rechenschieb	★★★★	Dual Xeon E5-2696		0,44	36.79
Komodo 9.2 64-	rechenschieb	★★★★	Dual Xeon E5-2699		0,60	54.75
Stockfish 6 64 P	danb	★★★★	Intel Xeon E31240,		0,01	6.56

If you are using a Cloud engine yourself it is displayed in green and underlined. In this example the engine „Houdini" is being used for analysis.

If an engine is only available for private use it is displayed in the list in blue.

Fritz 10	deramateur	★	Intel Core2 Duo E8400

The colour of an engine changes to red when an offer has been made for an engine.

This happens when there are several offers for an engine and there is a waiting list.

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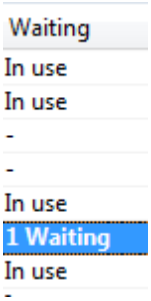
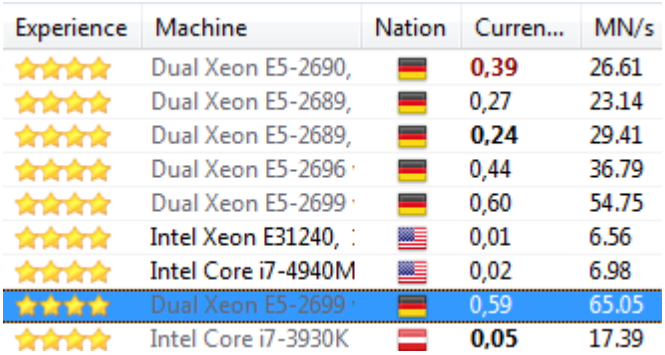


If your offer is not the highest the engine will be loaded when the other users have stopped using it. This way of using Cloud engines is useful if you are not at your computer all the time and you want to limit the costs.

If the hardware configuration of a provider changes the text in the Machine column changes to light grey.



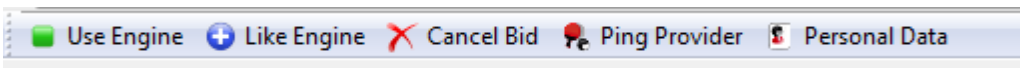
There are various symbols to the left of the engine's name.

All engines marked with a green symbol can be used for analysis immediately, by double clicking on the engine's name

If a yellow symbol is used the engine is being used by someone else, but you can take control of the engine for your own analysis by offering a higher price

The engine name is displayed in red if there is a waiting list for the engine. A red symbol next to the name means that there is a fixed price per minute.

At the bottom of the List window there is a toolbar with commonly used functions.



Use Engine The engine is loaded that is selected in the list.

Like Engine You can say that you like the engine.

Cancel Bid This removes your bid from the waiting list.

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Ping Provider This measures the speed of the provider's Internet connection.

Personal Data This opens the provider's „Personal Data" menu.

3.6.26.3 Board window with provided engine

If you have made an engine publically available it is started in a separate board window.

If someone is using the engine that you have provided this board window shows you the position that the user is analysing with your engine. The window also shows you information about the user, the time he has spent analysing, and the number of ducats transferred.

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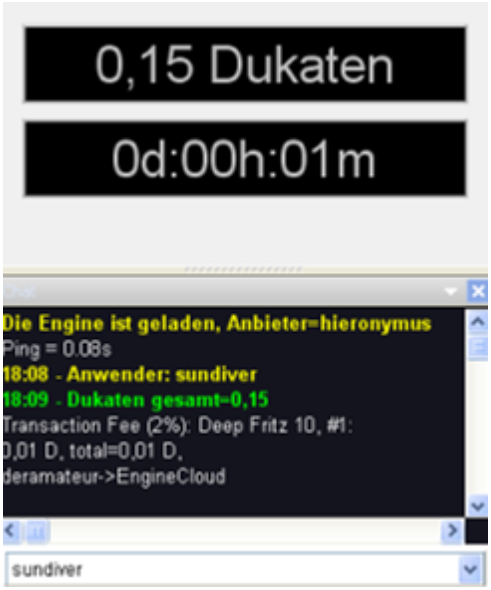
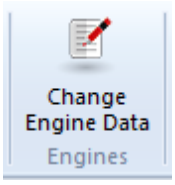


You can talk to the user in the chat window.



Change Engine Data offers the chance to change the conditions for an engine's use. If you close the window the engine is unloaded and is no longer available to be used.

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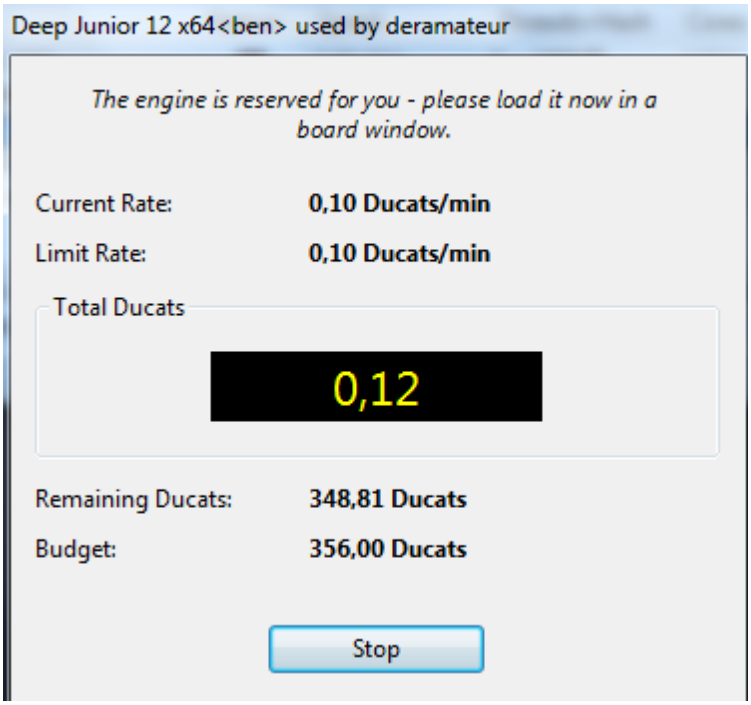
3.6.26.4 Engine connection

After loading an engine for your own analyses by double clicking it and agreeing on payment a connection window is displayed for the cloud engine.



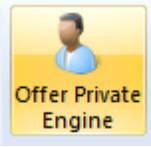
In this window you can see the price for the use of the engine and how much money you have paid for using the engine so far. Your account balance in ducats is also displayed.

3.6.26.5 Using a Cloud Engine privately

If you own several computers you can connect them with *Engine Cloud* and use them for a single analysis.

First you have to start the program on the computer on which the engine is installed. Click on the menu Engine – Open Cloud Engines.

Log on with the user name of your Playchess.com account. In the selection window pick the engine you want to use as a Cloud Engine and select the option „Offer private engine".



Now start Kommodo on the other computer that you want to use for the analysis, and select *Engine Open Cloud Engines* again.

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"

Log on with the same account as before. The engine that you have provided is displayed in the list in blue. If you only want to see the private engines in the dialog tick the box *Private Only* .

Double clicking an engine in the list opens the connection window, and the engine is now shown in the board window ready to be used for analysis or playing games.

3.6.26.6 Public Cloud Engines

In order to use the public Cloud Engines you would usually need a supply of Ducats. Ducats are the currency used on the server Playchess.com. They are used to pay for services such as private training, and they are also used to pay for the use of Cloud Engines.

Sometimes you can find users who offer their computer free of charge. These engines are marked as Free in the *Booking Fee* column, but there is the chance that another user will take this engine away from you by bidding ducats to use it.

Booking Fee	Max Fix Time
Free	60 min
0,02	120 min
0,02	120 min

You can buy ducats in the ChessBase online shop at www.chessbase.com.

In the column Name the available engines are displayed. If an engine is marked with a green point in front of the name it can be loaded immediately and can be used for your own analysis.

If you are offering an engine for public use you can define the conditions for its use in the Revenue menu.

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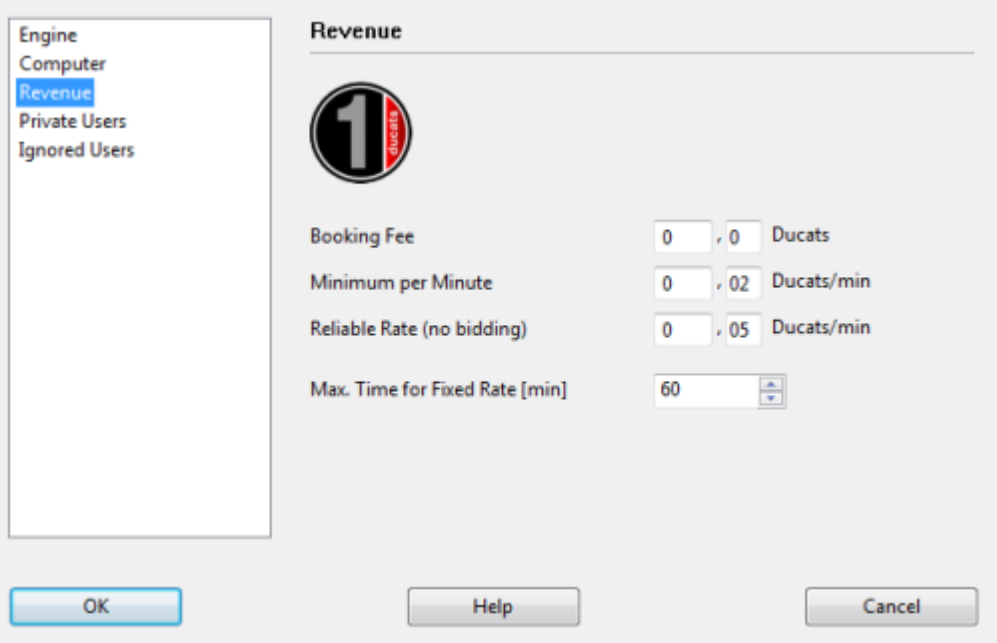

The ***Booking Fee*** is always charged when an engine is used. It is possible to set the value to zero.

The ***Minimum per Minute*** should be set to a low rate, but other users can offer a higher amount and take control of the Cloud Engine at any time. You can fix an upper limit for the offer, but only the existing rate is charged if no other user takes control of the engine. This setting is sensible if there is a low demand.

You can be certain of keeping an engine by booking it with the ***Fixed Rate***. This rate is a bit higher than the standard rate, but other users are not allowed to outbid you and you are guaranteed control of the Cloud Engine. This is recommended if there is a high demand on the Engine Cloud Server. During the analysis the user never pays more than the price for one minute in advance. If you aren't satisfied with the results supplied by the engine you can stop the analysis. In this way you can try out many engines without risking a lot.

If a yellow symbol is displayed to the left of an engine it is currently being used by another user. If you would like to use this engine you can attempt to outbid the user.

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If an engine is being used a fee is added to the bid which is the same as the current price per minute. This is also the case if a bid is unsuccessful. This is to protect the user of an engine against destructive bids which are only intended to take an engine away from him. If a bid is unsuccesful the user is placed in a waiting list. This means that the bidder gains control of the engine automatically when the previous user no longer needs the engine. After an engine has been booked a new window opems with the current board position and the engine begins the analysis.

If there is a waiting list for an engine the engine's name is displayed in red.

If there is a red symbol to the left of the engine's name the engine has been booked for a fixed price, the reliable rate per minute.

As already stated, an engine can be taken away from another user by offering a higher bid.

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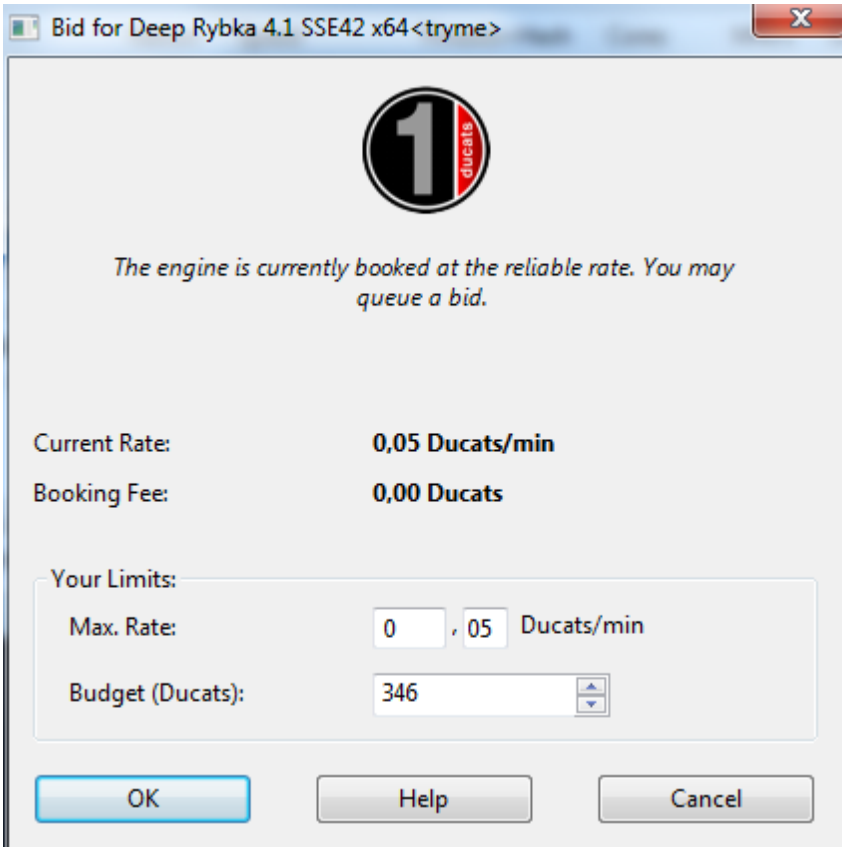

As soon as an engine changes hands a window opens that tells the user the status of the engine, the bid and the ducat budget.

By clicking on the button ***Stop*** the engine is halted immediately and the payments are stopped.

3.6.26.7 Offering a public Cloud Engine

Every chess engine that has the engine layout that was introduced in Fritz 11 can be offered as a Cloud Engine. These engines are easily recognisable, since they have the extension ***.engine**.

UCI engines can also be used as Cloud Engines. In the case of UCI engines **pay attention to the conditions of the license of the maker of the UCI Engine**! The

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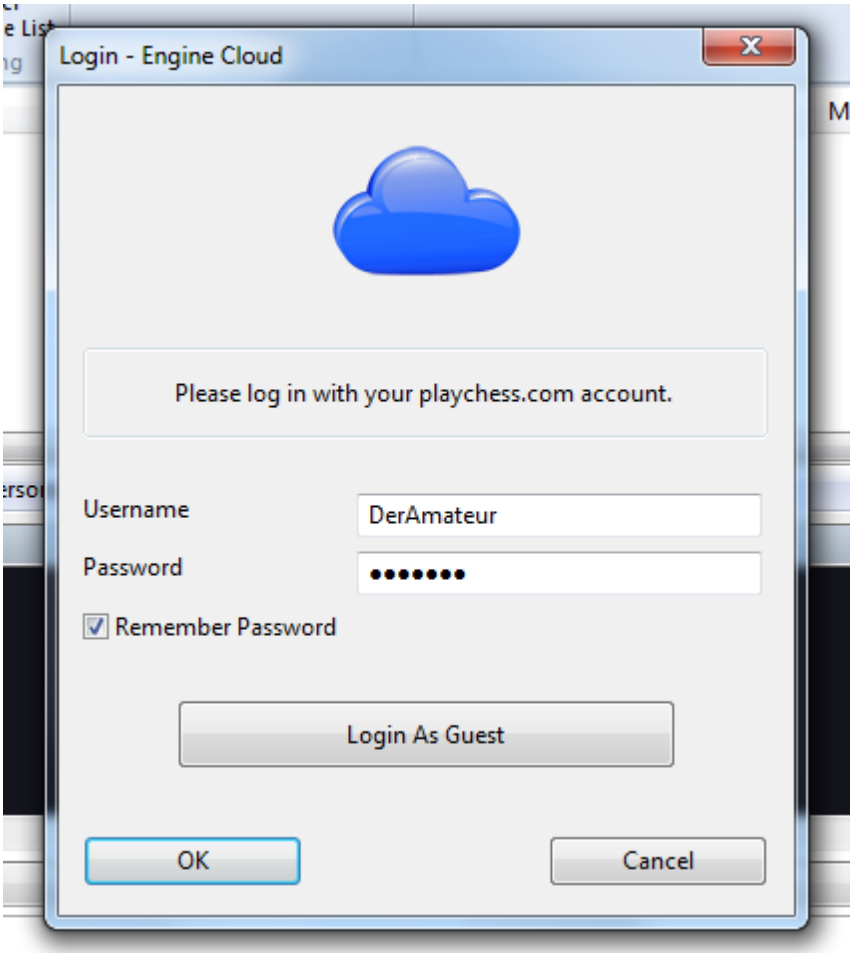
older chess engines can still be used in the GUI, but they are not accepted as Cloud Engines. Only the engines that can be used are displayed in the dialog window.

After the chess program has been started use the menu Engine – Open Cloud Engines.

The next step is to log into the server with your existing Playchess.com account details.



Note: If you log in as a *Guest* you can see the activities of the Cloud Engine server, but you cannot load an engine or take part in the analysis possibilities.

After you have connected to the server click the button *Offer Public Engine*.

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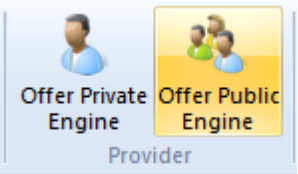
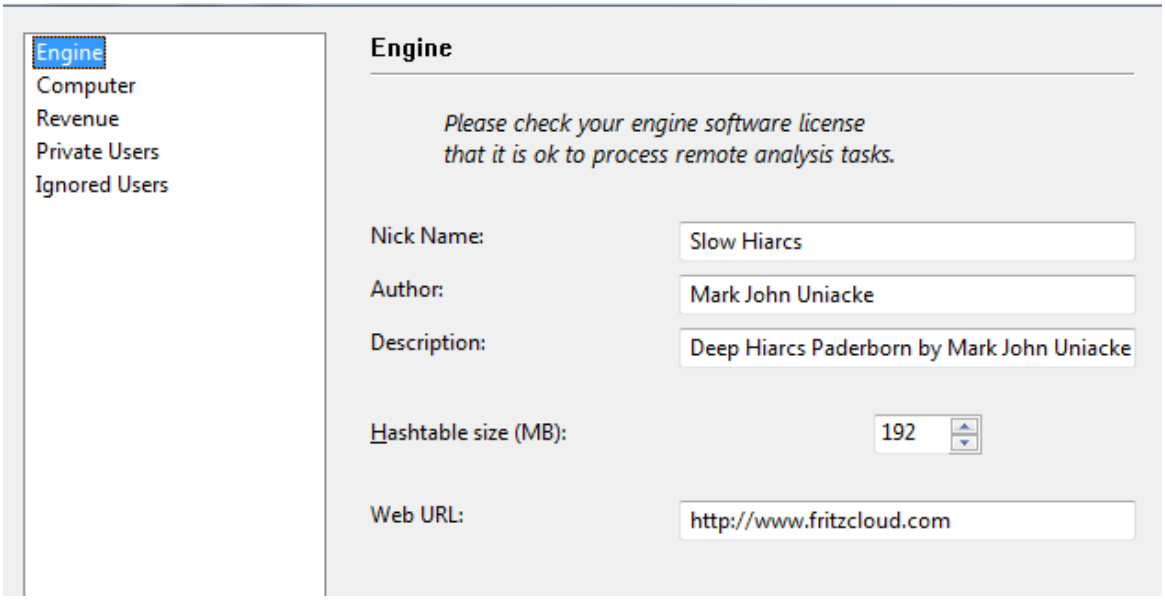


Select an engine from the Load Engine dialog and confirm the selection with OK.

In the configuration dialog for the Cloud Engine you have selected there are the following options:

Engine



Here you can set the Informations for the used Chess engine.

Computer

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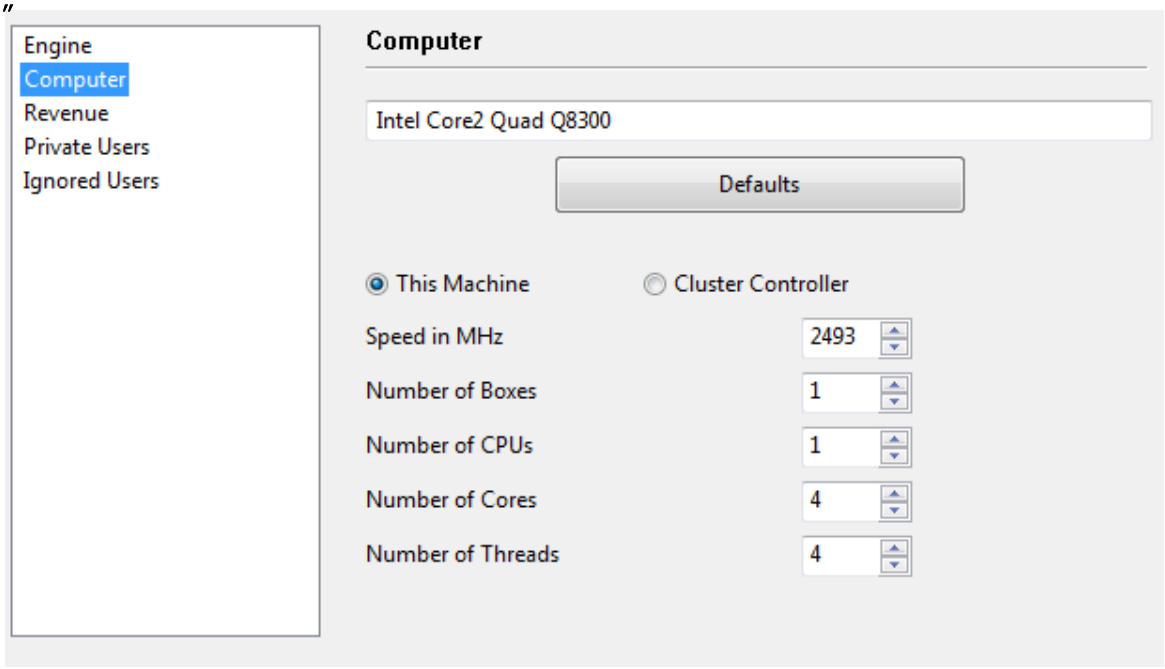
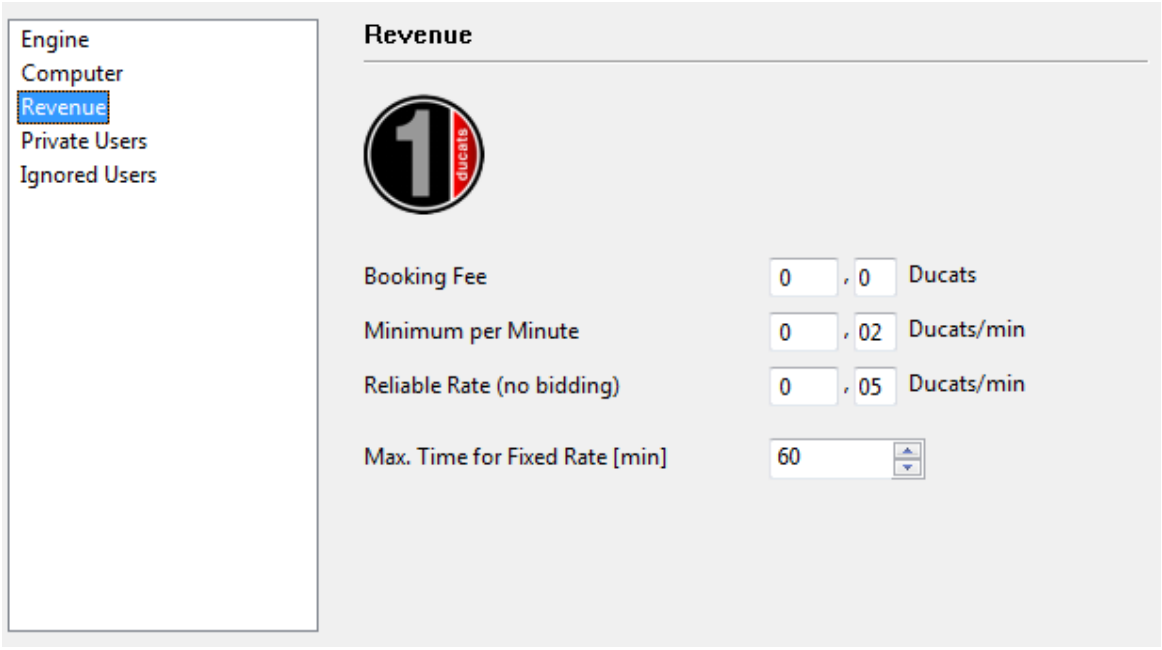


This defines the settings for the hardware ressources. *This Machine* copies the settings from the System Properties. By selecting *Cluster Controller* you can define your own settings for the ressources you want to make available, for instance the number of cores or threads.

Revenue



This sets the prices for potential users of the engine. The meaning of the individual parameters is described in another part of this Help file.

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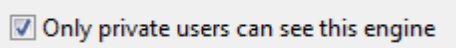
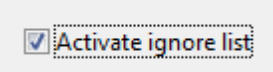
Private Users / Ignored Users

This adds users who you would like to allow to take part in your private analyses.

If you tick the box *Only private users can see this engine* only the users named here can see the engine that is being offered.



It is also possible to prevent certain users from using the engine. To do this you have to tick the box *Activate ignore list* .



Notes for the providers of public engines

When you first start to use Engine Cloud you should charge a very low amount for the booking fee. This will assure that as many users as possible will try out your hardware/ software combination. You will definitely receive ducats for providing a cloud engine when users decide to use the engine for a fixed price. In our opinion the first attempts at offereing a Cloud Engine should be used to build up a good reputation among users, who will then go on to make big analyses with the engines.

The server identifies the engine by the user name, the engine name and the hardware key. The system calculates the average speed and sums up the positive ratings for other users in the Likes column.

3.6.26.8 Summary of the auction system

It is important to understand the *difference between the providers and the users* in the Engine Cloud system.

It is possible to be both a provider and a user at the same time.

Renting of a Cloud Engine for a fixed price

The booking fee plus a fixed price per minute has to be paid.

If a red symbol is at the beginning of the row the engine cannot be taken away from the current user by outbidding him. den. Bids can still be made, but they will not be accepted until the current gives up the engine or his maximum time runs out. If the board window is open the engine starts to analyse this position automatically!

Normally there is a maximum time for renting the engine at the fixed price.

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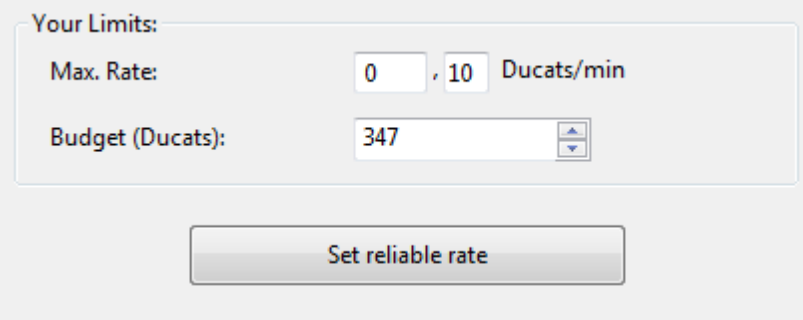
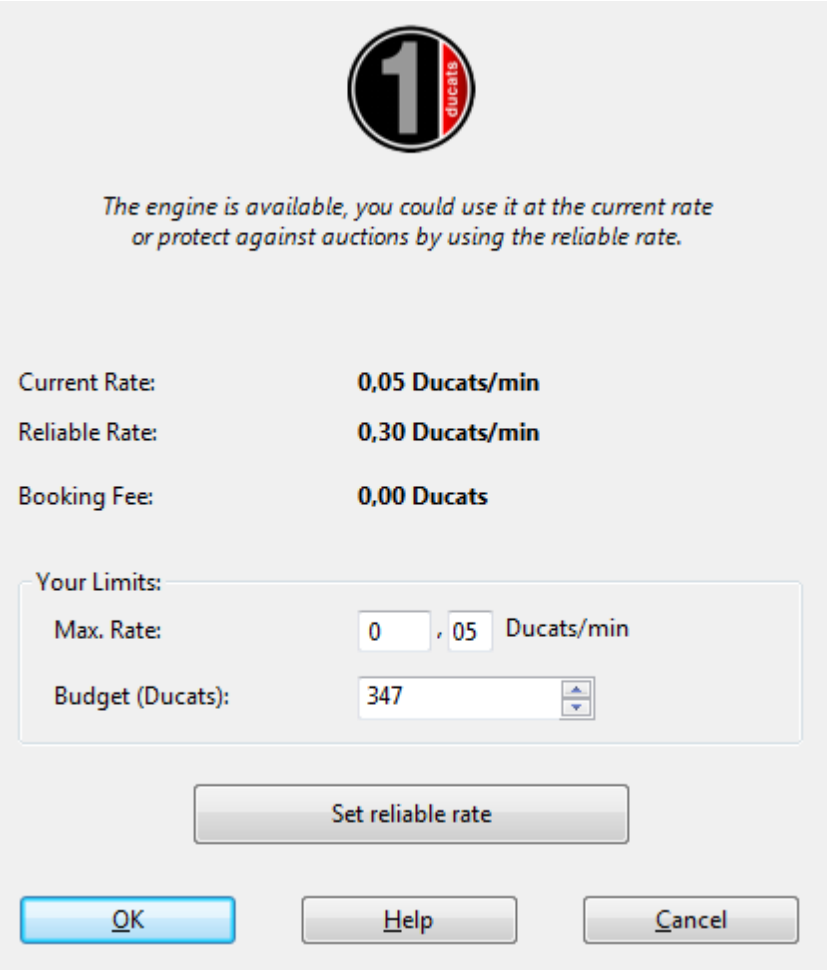


At the end of this time there is no more protection against being outbid, but if there are no bids you can continue to analyse normally.

All engines with a green symbol can be used for analysis immediately by double clicking on the engine's name.



In the dialog window you can see the provider's settings for the current price, the fixed price and the booking fee.

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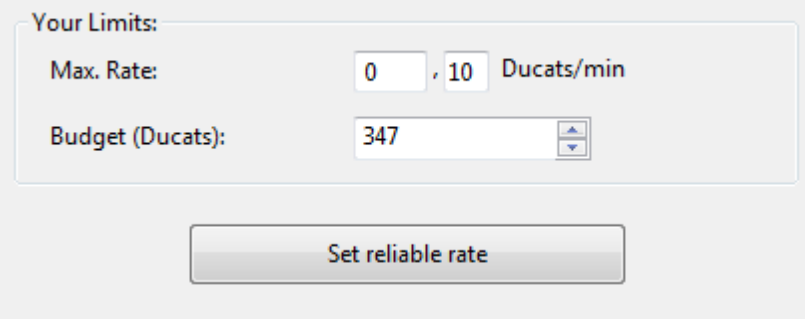
Renting of a Cloud Engine with an auction

In this case you must pay the booking fee and the current rate for one minute. The yellow symbol next to the engine signifies that the engine is being used by another user. If you would like to use this engine for your own analysis you can try to outbid the user. You can offer a higher rate than is being used with the menu Limits – Max Rate.



If you are outbid the price rises automatically, like it does with Ebay bids. Starting with the next minute the user is charged the higher price. If the other bidder withdraws his bid, for instance by logging out, the price falls slowly back to the old value.

If the user's price is outbid he is given a warning and has to react. If he does not increase his price the engine is unloaded after 20 seconds. The new user then pays the higher price that he has offered. Even if the engine is unloaded fast it can take a few minutes for the price to drop to the old level. This means that if there are auctions for popular engines the prices are automatically higher.

Fees

At the end of the rental period the provider pays a transaktion fee of 2% to the server.

If the provider merely unloads the engine, half of the price since the start of processing the last main line is refunded.

When you bid against another user you have to pay the price for one minute to the server even if your bid is unsuccessful. This is to prevent people making bids just for fun.

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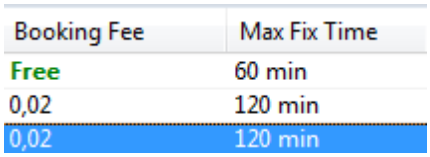
3.6.26.9 Hints

3.6.26.9.1 Use of Cloud Engines

Can engines be used without paying ducats?

This is possible if you load private engines on your own computers to be used by yourself. This is one of the ways to use the Engine Cloud. You can also use the engines of other users that are listed in the Booking Fee column as FREE.

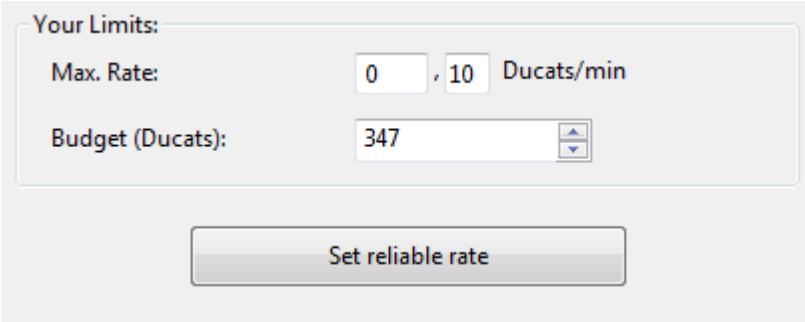


Can I offer a lower price than the currently asked price per minute? Can I negotiate a price?

You can always make an offer. The provider is informed and has the opportunity to lower the booking fee. If he does this the engine is automatically loaded. It is recommendable to load a board window with the position to be analysed in advance. If an engine is loaded while the user is away it immediately starts to analyse the position in the board window.

Can the length of time for using an engine be limited?

This can be done by limiting the ducat budget for using an engine.



As soon as the limit is reached the Cloud Engine is unloaded and the current line including its evaluation is copied into the game notation.

Can engine matches be carried out with Cloud Engines?

Yes. Engine Cloud offers an interesting type of autoplayer. You can load both engines from the Engine Cloud server, or you can load one engine to play against a local engine on your own computer. The Cloud Engines can be used for test suites, permanent analysis on the Let's Check server or in the Machine Room on Playchess.com. If you use a Cloud Engine in this way you should use a fixed price. This makes sure that you will not be outbid and will be able to continue using the engine. If you lost an engine by being outbid you would lose a game.

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3.6.26.9.2 Providers of Cloud Engines

Can an engine be offered just to a small group of users?

In the engine settings there is section for „Private Users". Here you can list the users who are allowed to access your engine.

What do the stars in the „Experience" column mean?

This shows how often a provider's engine has been used. The number of stars is based on the number of times it has been used, the number of different users, the number of Likes and the ducats that have been earned.

What price should I ask for my system configuration?

The price is decided by supply and demand. You should start off by offering your Cloud Engine free of charge. This will allow you to gather experiences and decide on a suitable price.

What does „Max Time for Fixed Rate" mean?

The fixed rate protects the user of a Cloud Engine from being outbid. After the time limit specified by the provider has been reached the Clound Engine is open for new bids, even though the current user can continue if there are no bids.

Can more than one engine be offered on a computer?

No. The identification of an engine is a combination of the user name, the engine name and the hardware key. This combination is unique for every engine.

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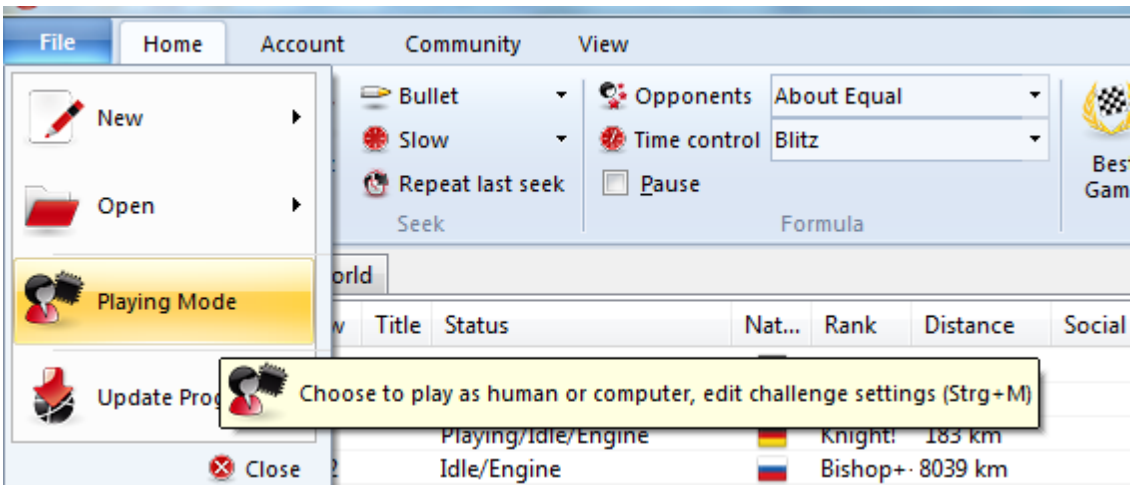
3.6.27 Examples

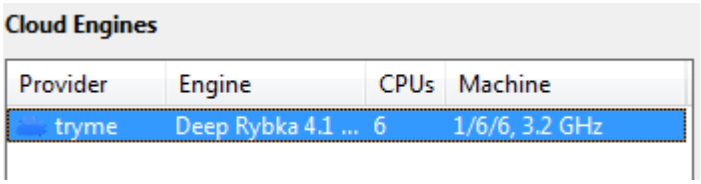
3.6.27.1 Cloud Engines on Playchess.com

Cloud Engines can be used in many different ways. You can use these engines for your own analyses and tests. This can be done for engine matches, permanent analysis or in the Engine Room on the Playchess.com server.

You can use Cloud Engines in the *Engine Room* in Playchess.com. Enter the Engine Room and select the option *File* *Playing Mode* *Computer*.



Click the button *Define Engine* to start the Load Engine dialog. There is a button *Cloud* in this dialog.



If you click this button you are asked to log into the Engine Cloud server.

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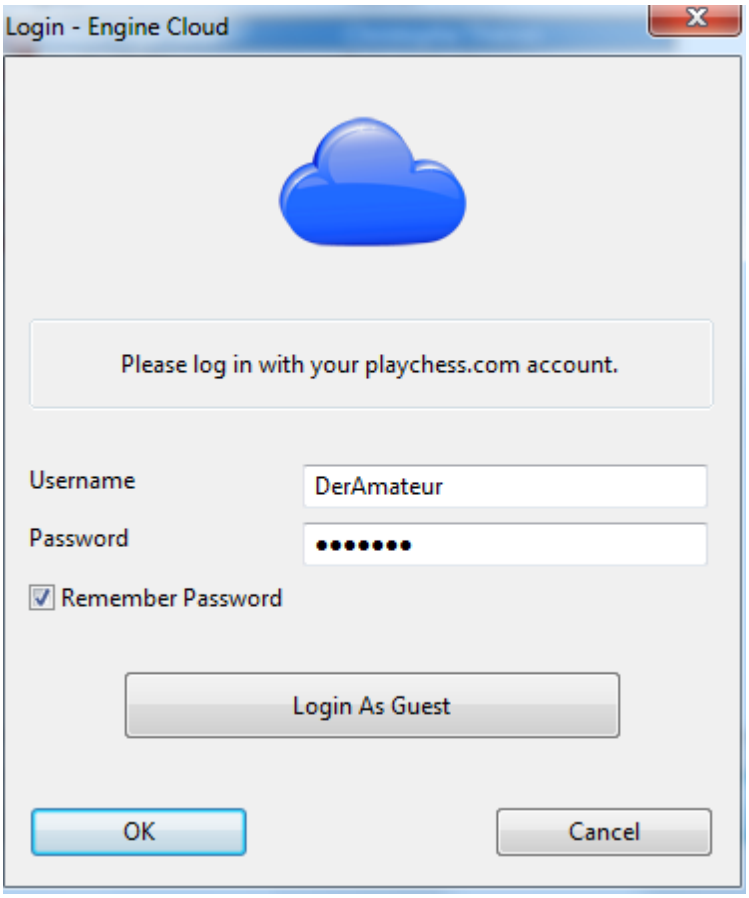

Now the main window of the Engine Cloud Server is opened in a separate window. You can select the engine you want to use in the Engine Room by double clicking on one of the engine names in the list.

After you have done this a window is displayed for the engine connection, and the engine can be used in the Engine Room in the same way that any local engine can be used.

By clicking the Advanced button you can set the path for the openings book or select the Live Book.

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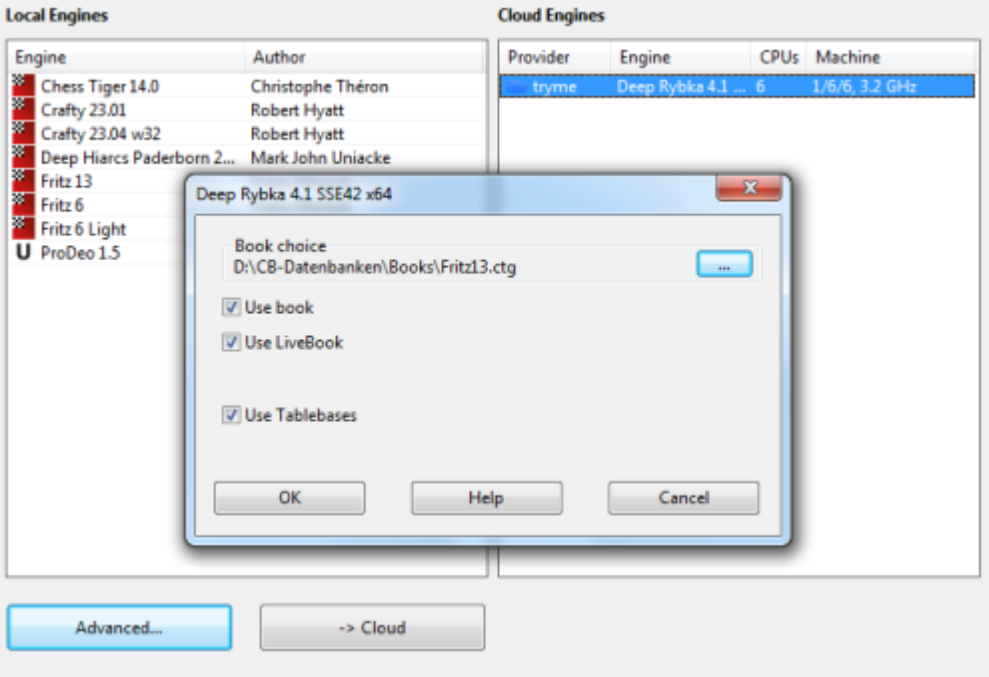
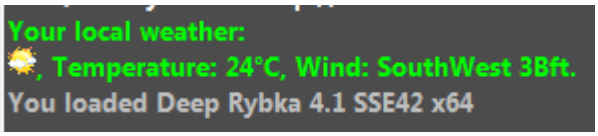


There is a confirmation in the Chat window when a Cloud Engine has been loaded.



3.6.27.2 Playing games

You can use any Cloud Engine as an opponent when you are playing a game against the computer.

The menu *Engine* *Open Cloud Engines* opens the main window of the Engine Cloud server. Choose and load one of the Cloud Engines. After you have made a bid and confirmed that you want to use the engine you can play a game against the Cloud Engine.

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By using Engine Cloud you can use top engines with enormous processing power even on a relatively slow computer.

3.6.27.3 Let's Check

The Cloud Engines can be used on the Let's Check server in the same way as any locally stored engine.

The speed index is based on the speed of the engine's provider, not on the speed of the computer with which you are using Let's Check.

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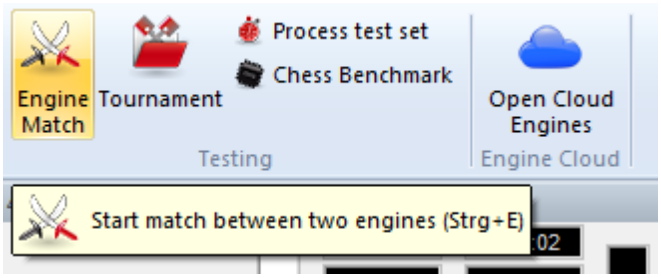
3.6.27.4 Engine matches

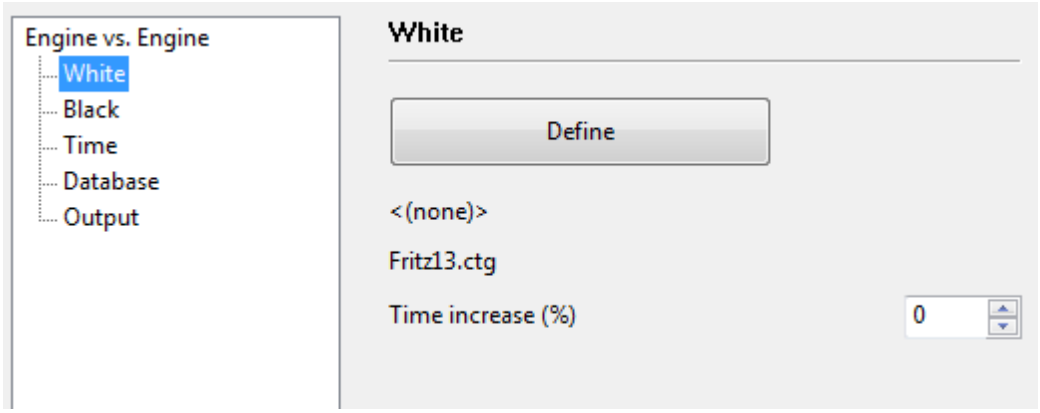
You can use *Cloud Engines* for engine matches. It is also possible to play engine matches with Cloud Engines against locally stored engines.

Menu Engine Engine Match White + Black



First load the the Cloud Engines that you want to use in the main window of the Engine Cloud server.

Clicking the button Define opens the dialog Load Engine.



This gives you a list of the available local engines. By clicking the button Cloud you can also select a Cloud Engine.

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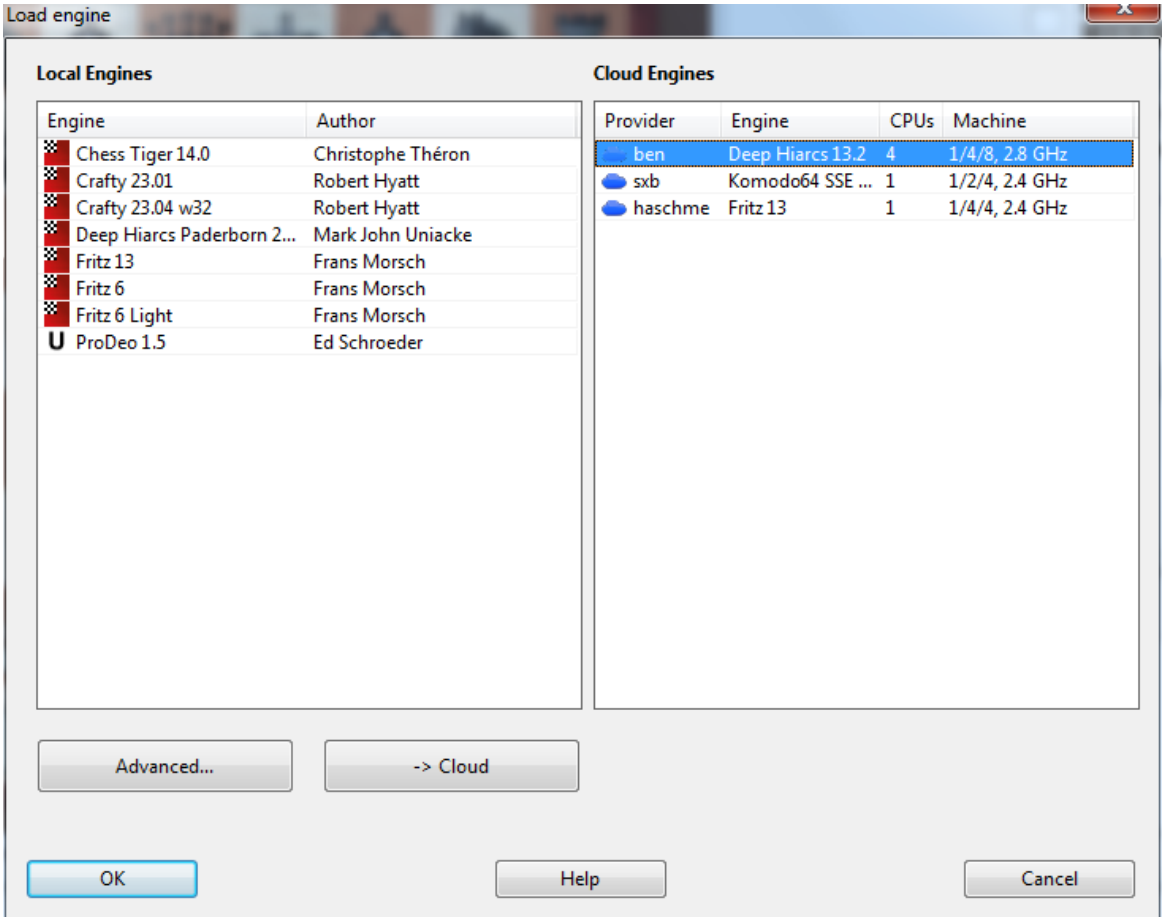

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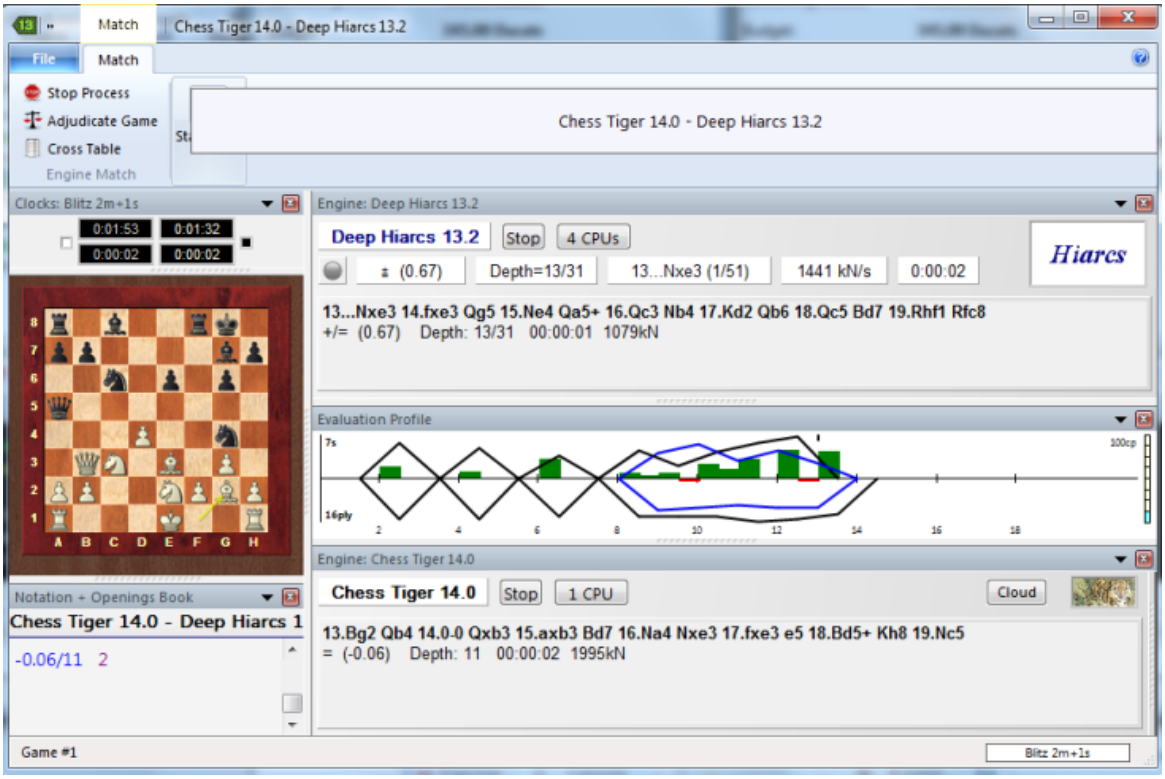
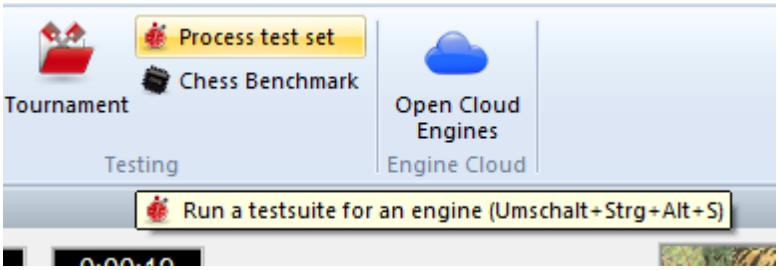


3.6.27.5 Solve Test Sets

First load the Cloud Engine that you would like to use for the test set. The connection window tells you the status of the engine you have loaded. Then you can start the test set with the *menu Engine Process Test Set*.



The Cloud Engine then carries out the analysis.

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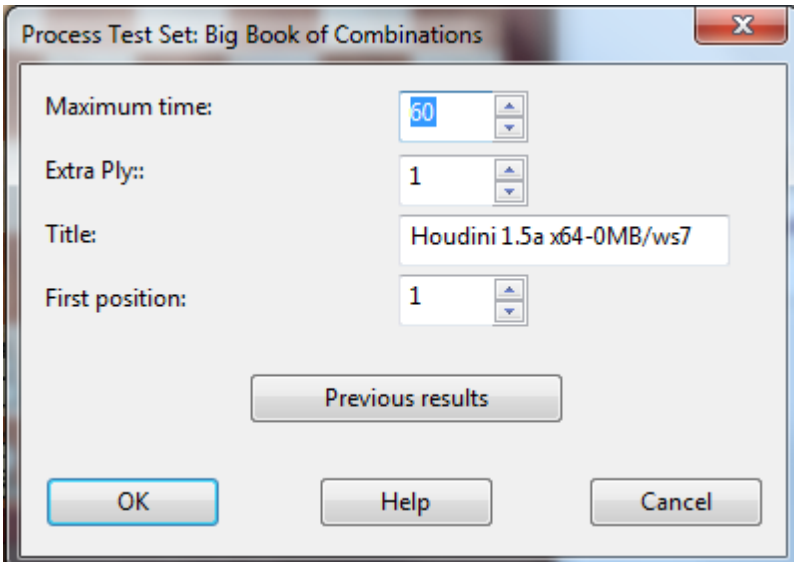

3.6.27.6 Infinite Analysis with a Cloudengine

Every game can be analysed by several Cloud Engines in parallel. Since the Cloud Engines run at full speed regardless of the limitations of the local computer you can come to plausible analysis results very fast.

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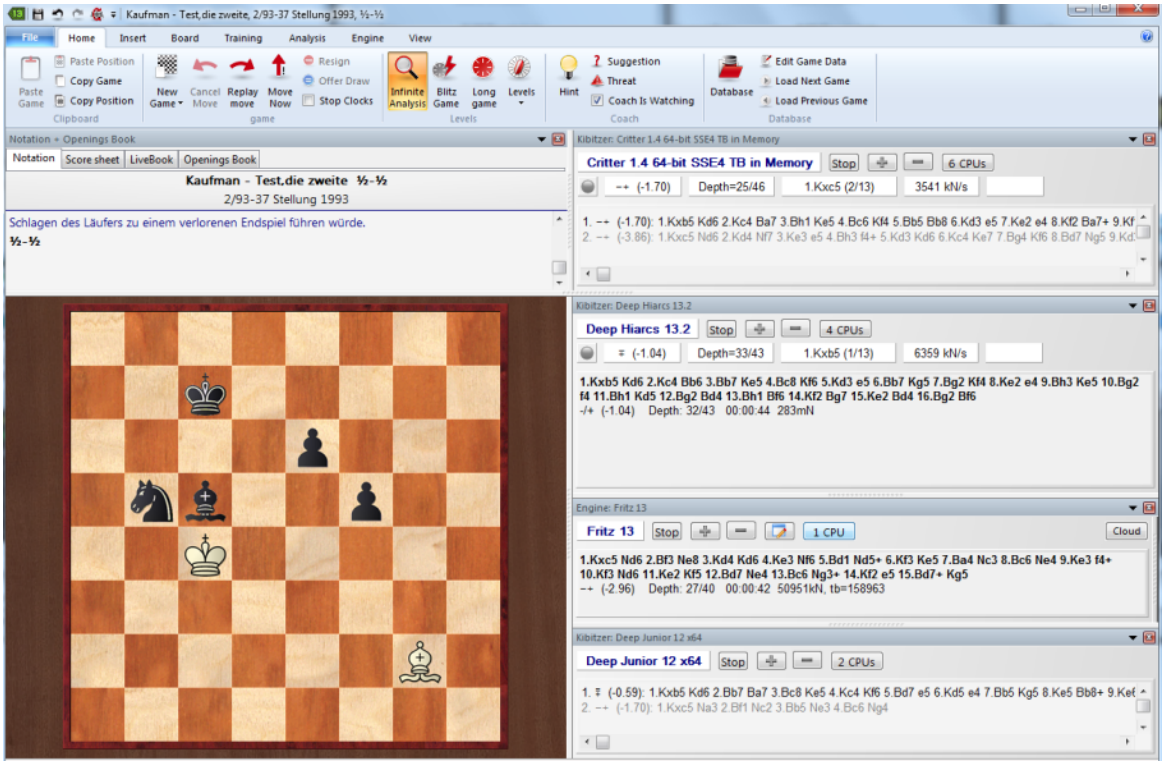
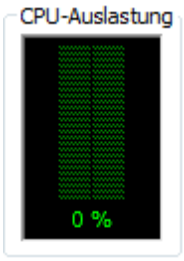


The above diagram shows the analysis of a position with three different Clound Engines, which are each running at full speed in the board window. As you can see from the Task manager, the CPU load is only 0%.



The Cloud Engines can deliver precise results even on weaker computers.

This type of analysis can also be used while watching a game in the Broadcast Room of the server Playchess.com.

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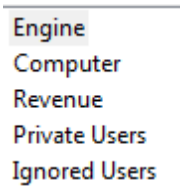
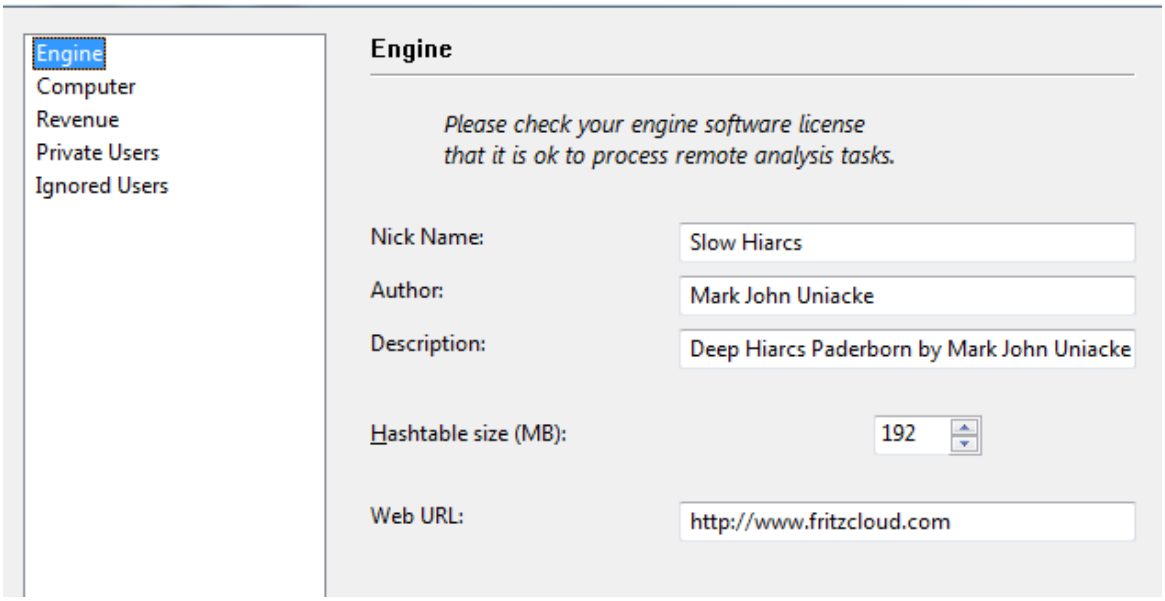
3.6.28 Settings dialog for providers



- Engine ....
- Computer ....
- Revenue .....
- Private Users ....
- Ignored Users ....

3.6.29 Engine

The section Engine defines the standard settings for the display of the engine in the Engine Cloud main window.



Note: Please pay attention to the user license of the software that you would like to use on the Engine Cloud server!

- **Nick Name:** Pick a name that you would like to give to the engine in the list window.
- **Author:** The name of the developer of the chess engine.

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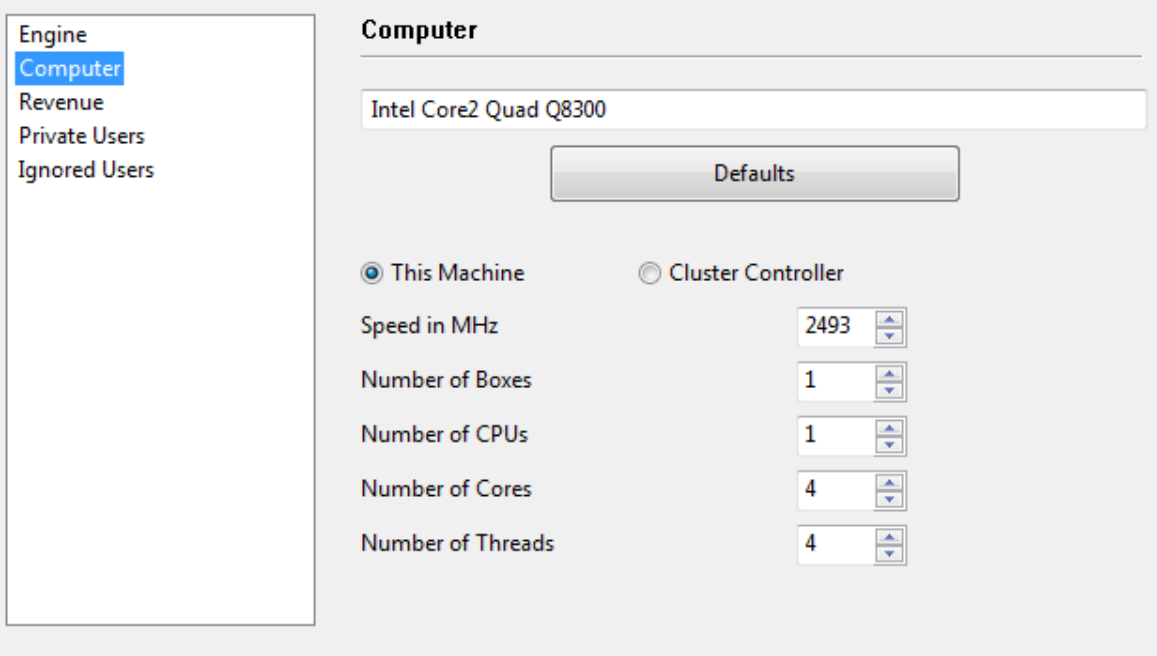
- **Description:** The provider can give a short description of his configuration.
- **Hashtable size:** The size of the hash tables in megabytes.
- **Web URL:** The address of a web site containing further information.

3.6.30 Computer

"The section ***Computer*** allows the provider to adjust the system configuration he is offering. If you do not wish to make any modifications simply tick the box *This Machine*", and the settings from the System Properties will be used.



The option *Cluster Controller* is needed if you have access to a cluster. A cluster is a group of networked computers which act as a single computer to the outside world. A cluster is very efficient for carrying out intensive analyses with chess engines.

If you have access to a cluster and want to offer this, it is displayed as a cluster in the column „**Cores**".

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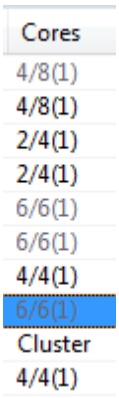

The following paramaters are available:

Speed in MHz The processor speed.

Number of Boxes This parameter is only relevant for clusters.

Number of CPUs The number of processors that are used.

Number of Cores The number of processor cores.

Number of Threads The number of parallel tasks allowed in the process.

3.6.31 Revenue

Supplying a chess engine costs money, for instance for the electricity used.

The section Revenue determines how much users must pay the provider for using his engine.

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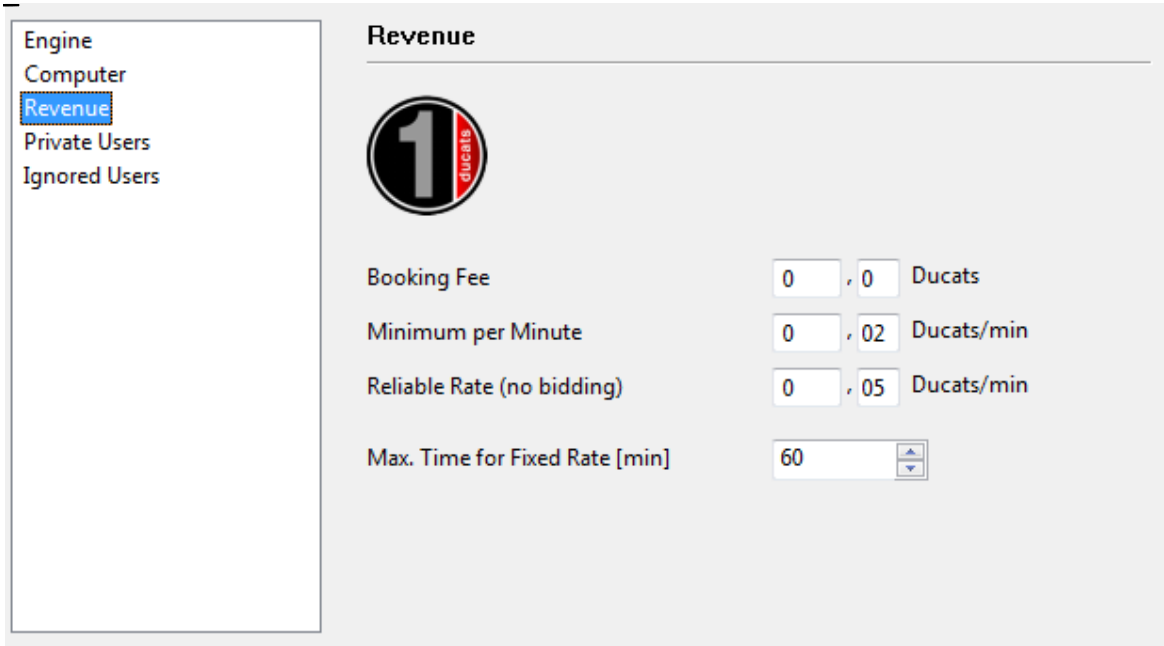

The ***Booking Fee*** is charged whenever an engine is used. It is possible to set this value to zero.

The ***Minimum per Minute*** is the lowest price for which a user can use the engine. Other users can bid more than this amount at any time.

The *Fixed Rate* (Reliable Rate) is a higher rate at which bidding auctions are no longer allowed. Other users cannot take control of the Cloud Engine by bidding more. Users pay the Fixed Rate when there is a high demand for engines on the Engine Cloud server.

See also

-> Auction System ...

-> Providers of Cloud Engines ....

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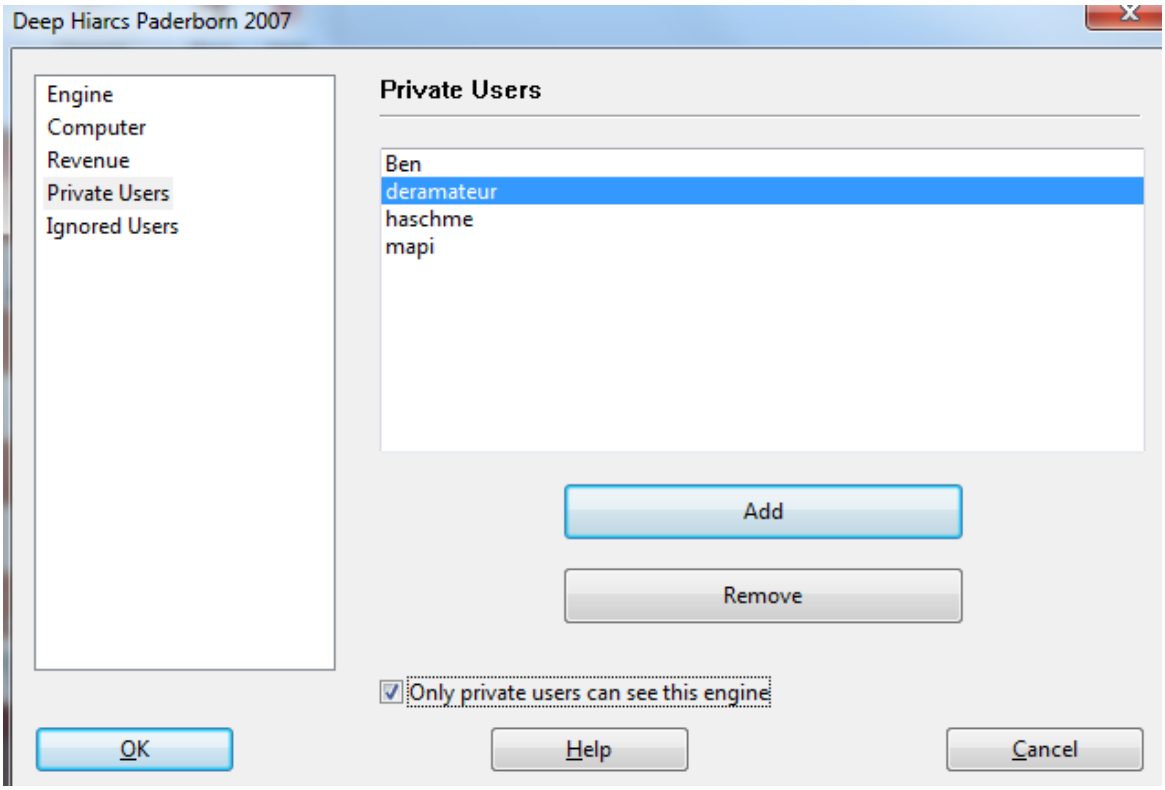
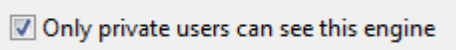
3.6.32 Private Users

In this section you can name users who you would like to take part in your private analyses.



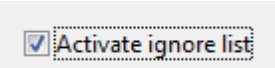
Tick the box *Only private users can see this engine* if only the listed users should see the engine in the engine list.



If an engine is only available for private use it is listed in blue and is underlined.

3.6.33 Ignored Users

It is possible to forbid certain users to access an engine. The engine is invisible to these users. After the users who are to be ignored have been listed you have to tick the box *Activate ignore list* .



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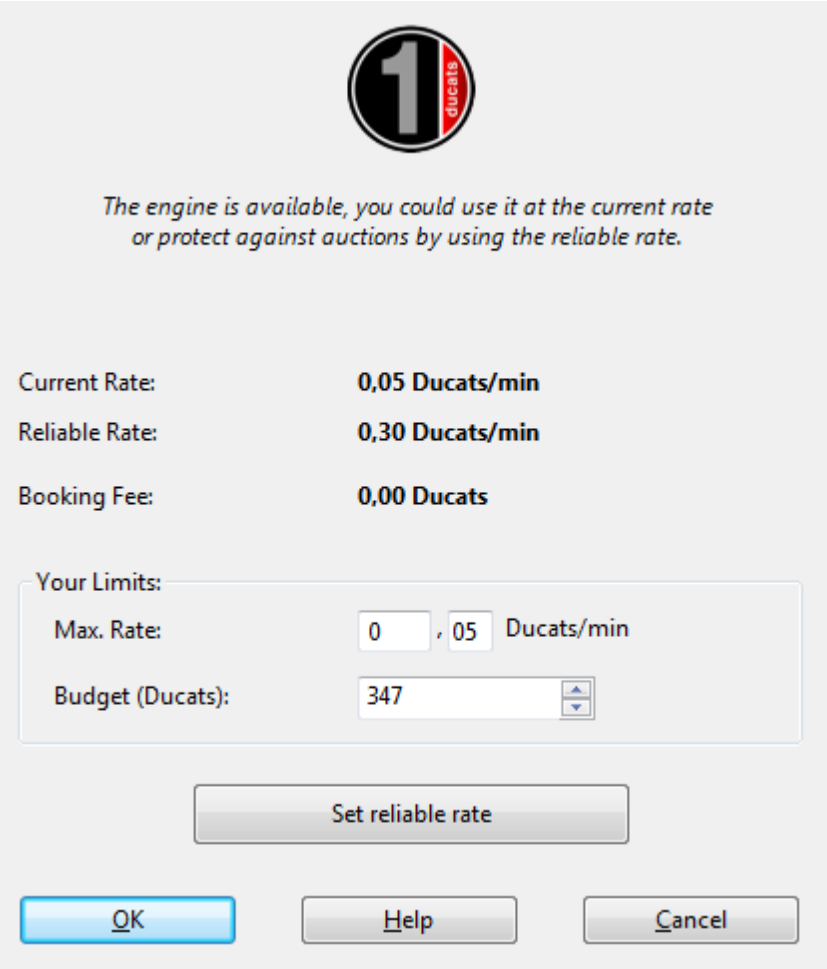
3.6.34 Bid Dialog

After double clicking on an engine in the Engine Cloud window a dialog for bidding pops up.



This dialog displays the status of the engine. In this case it is displayed that the engine is available at the current rate.

Current Rate This shows the price that the user must pay to use the engine.

Fixed Rate This is the reliable fixed rate as defined by the provider.

Booking Fee This is the one time fee for using the engine.

In the ***Max Rate*** the user can agree to pay a higher rate for using the server. If there is a bid against him the price rises automatically, in the same way as Ebay bids. The user is then charged the higher price starting the next minute. If the other user withdraws his bid, for instance by logging out, the price slowly drops to the old value.

If the new bid is larger the user is given a warning and must react immediately. If he does not react the engine is unloaded after 20 seconds.

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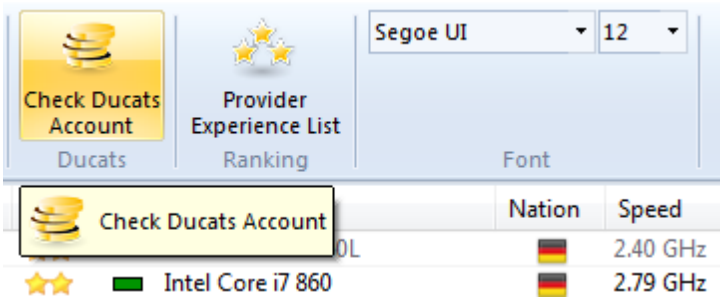
Note: In the chat window you are informed about the results of bids.

See also

-> Auction system .....

-> Public Cloud Engines .....

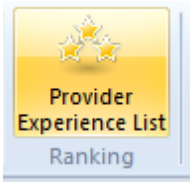
3.6.35 Ducats



Ducats are the currency of the Playchess server. You can purchase ducats in the ChessBase Shop.

A ducat is worth about 8.6 cents, 11.6 ducats are equal to one Euro (approximately one dollar). The conversion contains the VAT required by German law. You can buy ducats from the ChessBase shop at this rate.

3.6.36 Rating List



In the main window of the Engine Cloud server you can open a rating list based on user experiences. The rating in the list is based on the time the engine was used, the number of different users, the number of Likes and the ducats that were earned.

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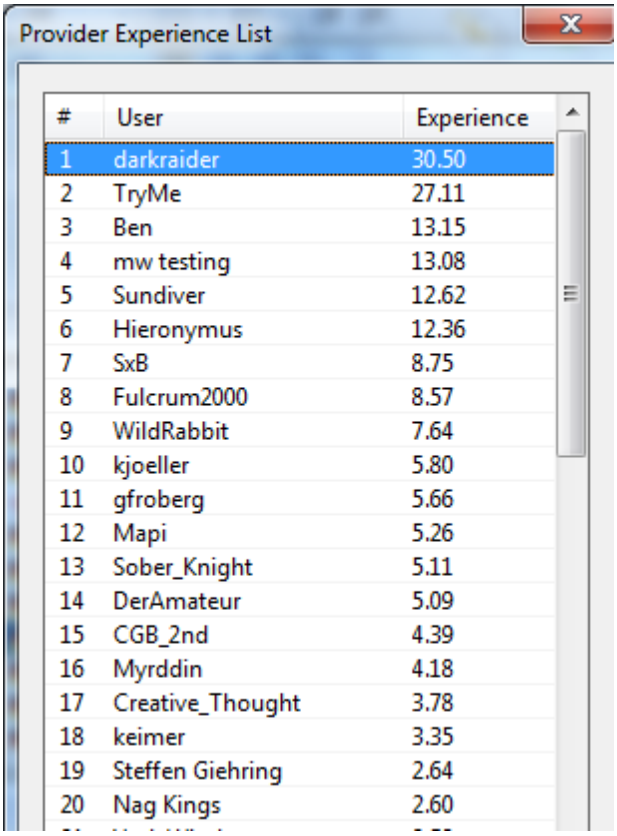


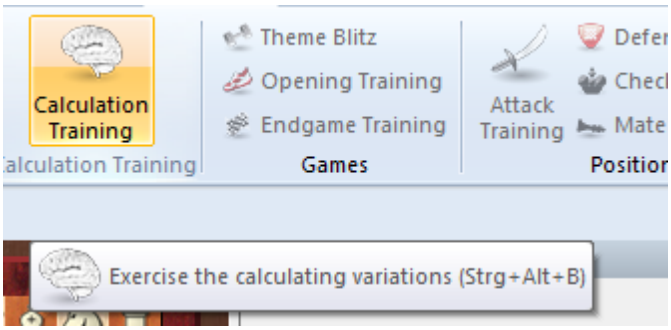
3.7 Training

3.7.1 Calculation Training

You can vastly improve your playing strength by training to calculate variations. This function is fun to use and helps you to learn visualization of moves on the board without moving the pieces. This is what over the board chess is all about!

In addition to the classic calculation training under "Classic Menu" the program supports in "Easy Game" mode an alternative form of training, Supported calculation training.

Calculation training starts from an arbitrary position on the board. Call menu ***Training - Calculation Training***. *(Ctrl-Alt-B)*



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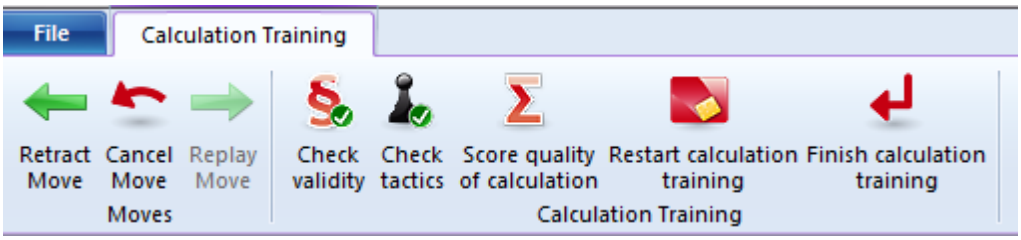
You enter moves by clicking or dragging with mouse like on the normal board. Every move is added to the notation. You can click in the notation and move forward or backwards with the arrow keys. At any stage you can enter new variations. However the pieces on the board always remain fixed in the starting position.

Calculation training offers you different levels of feedback:



From left to right

- *Arrow left* takes one move back.
- *The curved arrow* retracts a move for quick correction: The next move you enter will overwrite the retracted move without the usual query.
- *Arrow right* executes a move in the notation.
- *The green checkmark* checks all moves for legality. Like in real calculation you may enter illegal moves.
- You can start the engine for interactive analysis. However the board will still remain in the starting position. Good for tactical checking without moving the pieces.
- *Score the quality of your calculation*: This will take a while. The engine examines every move you entered and assigns a point score. Simple moves will get one point, strong moves four points and tactical oversights will score negative values.
- *New calculation* – deletes all previous lines.
- *Quit* calculation training ends the current session and, if you wish, merges your variations into the game notation.

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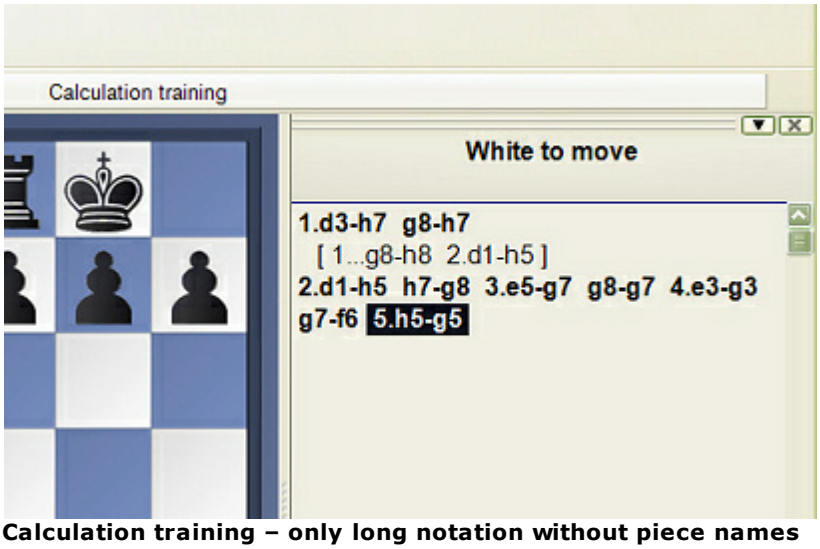


Calculation training – only long notation without piece names

The calculation training has been extended. The user has new options, such as deleting results already made with the program in order to start again.

The program first asks whether the user really wants to delete the results.The program also checks whether the moves that have been entered are legal.

Important: You can use calculation training on the chess server during a broadcast, using Menü Tools - Calculation Training. This is to be especially recommended during live broadcasts when players are spending a lot of time pondering over a position. It will help your chess much more than simply looking at the main line of your engine.

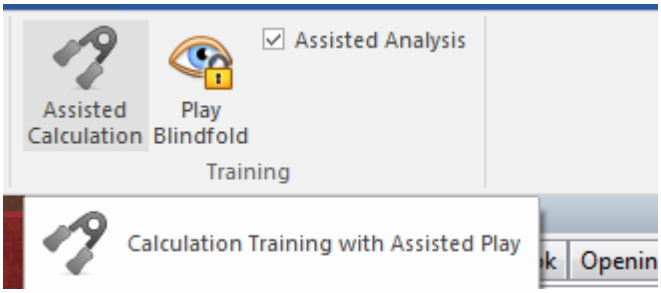
3.7.2 Assisted Calculation

The function "***Assisted Calculation***" constitutes valuable training support for ambitious tournament players.

The function is available under " Easy Game"

One elementary component of practical playing strength is the ability to calculate variations accurately without looking at the board.

You launch this training function in playing mode under ***Start*** ***Assisted Calculation***.



Then you simply start a test game under ***Easy game*** and you play a few moves.

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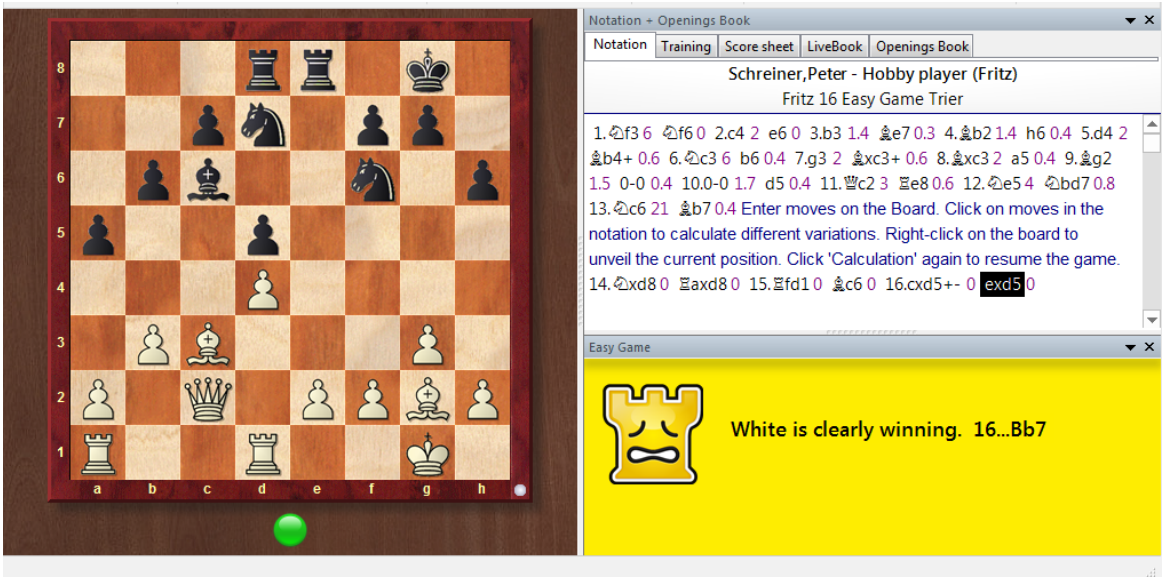
w

After activating Calculation training you can then input further moves on the chess board, but the actual position on the board does not change.

So the user does see the follow-up moves to the variations he is calculating in the notation, but not on the graphic chess board. Like this, you can at any time during critical phases of the game train your calculation of variations in a targeted fashion. By clicking within the notation you can start calculating alternative variations at a different point and in this way you can produce complete variation trees with alternative branches.

What is especially recommended is to activate the function whenever the program draws your attention to a tactical possibility. ("There is something here ...").

A right click on the chess board allows you to have direct control over the final position calculated.



The screenshot shows the way it functions. By holding down the right-hand mouse button on the board the final position of the variation you have just calculated which has been hidden up to that point will be displayed.

As you test the function the importance it has for calculation training will rapidly become clear to you. The program efficiently supports you in the accurate calculation of variations and with a right click it shows you the final position of the variation being calculated to better guide you. This training mode lays the focus entirely on the task of specifically calculating from a position and then visualising the final position reached.

Positions offering help

In addition to all that, the program also offers a little help at some positions during the game. Via *Hint* it gives short tips about the best continuation.

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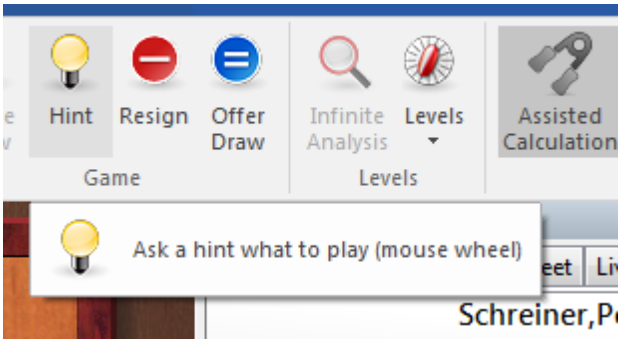

But there is an even more elegant method. Simply by rolling your finger over the mouse wheel you can be shown the piece which can make the best move in the actual position on the board. The relevant piece is highlighted on the board by being framed in green.

In combination with Assisted Analysis you can also get a little help, but this time it calls for independent thinking on the part of the user.

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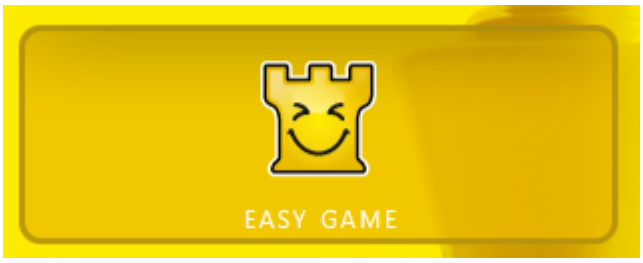
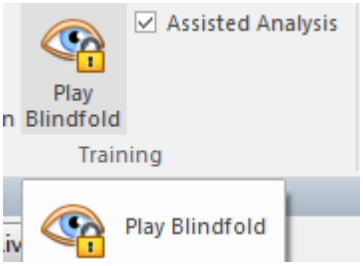
3.7.3 Blindfold play

Another option for improving visualisation and the calculation of variations is **blindfold play**.



This training function can be started in an "Easy game" via the menu "*Start Play Blindfold*.



In this mode you enter the moves without seeing the pieces on the graphic chess board. The further advanced you are in the game, the harder it is to accurately evaluate the position and the variations which arise from it.

A simple example illustrates how it works.

With a click on "***Play Blindfold***" remove the symbols for all the pieces from the board and enter the first opening moves. These moves are displayed in the notation window but not on the chess board.

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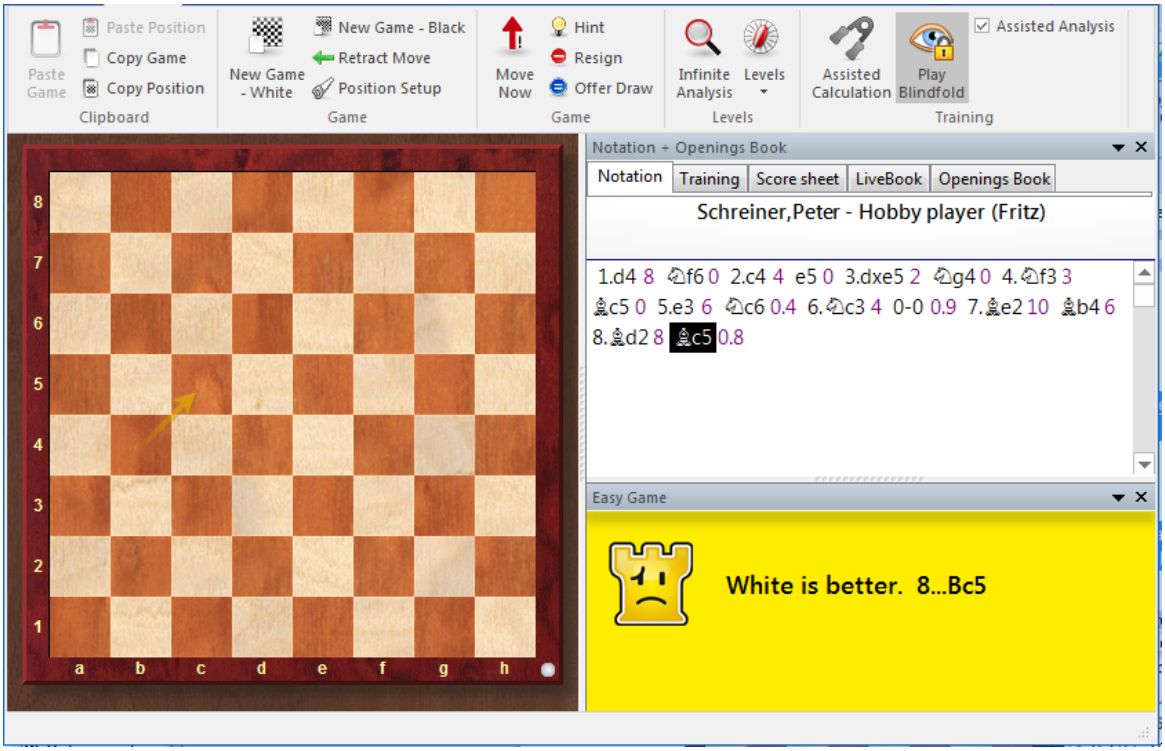

Unlike in a genuine blindfold chess game you can have the actual position on the board displayed at any point by a right click on the chess board.

A second click on *Play Blindfold* switches back on the permanent view of the pieces and brings to an end the blindfold chess mode.

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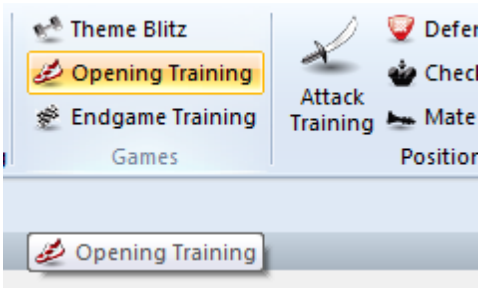
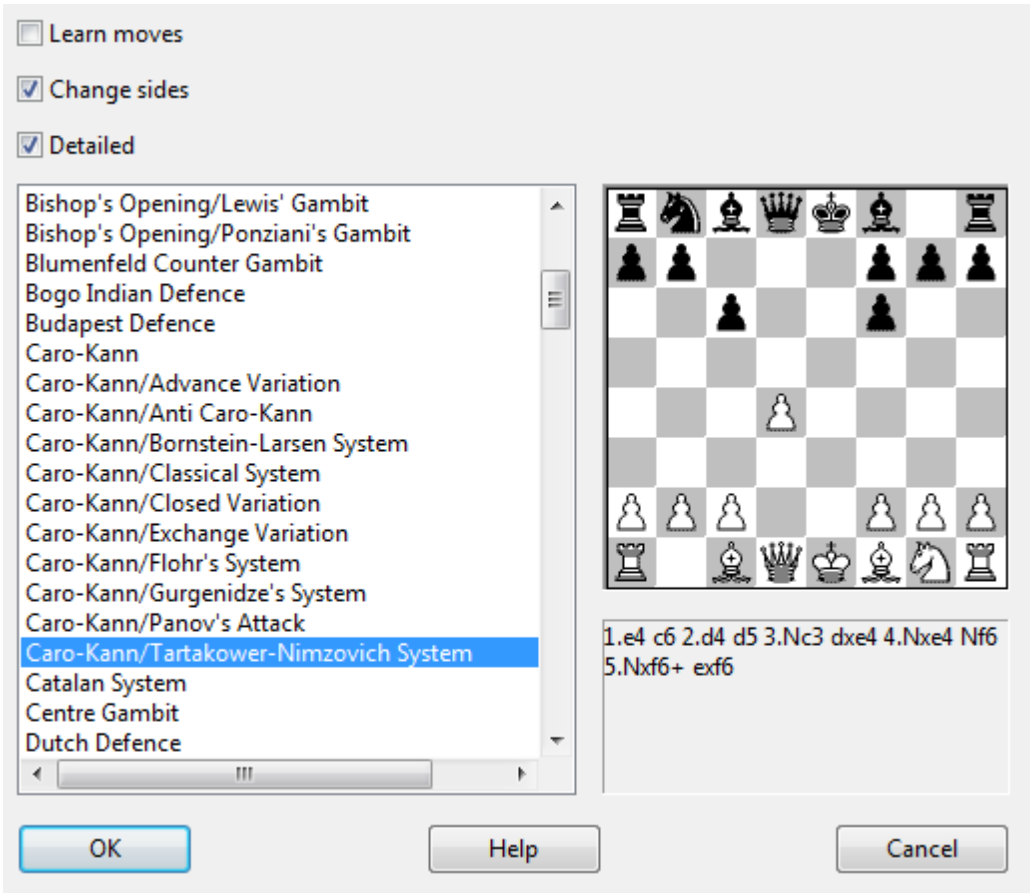
3.7.4 Opening Training

Training Opening training



The program has special training functions for openings and endgames. In both you keep playing a position against the computer until you learn how to handle it.



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In the list of openings that appears you can choose one you want to learn. The position that defines the opening appears on the board to the right. Click OK if it is the one you want to practice.

The position is transferred to the main board and you can start playing against the computer. Every time you press Ctrl-N (for "New game") the same position appears on the board – until you switch off the opening training mode.

There are three options on the top left:

- **Learn moves:** This brings the initial position on the main board, and you are expected to play the main line from scratch. This is of course given below the board in the picture above.
- **Change sides:** This will switch sides whenever you start a new game so you can learn both sides of the opening.
- **Detailled:** You get a more detailled set of openings (as in the picture above) rather than the basic set.

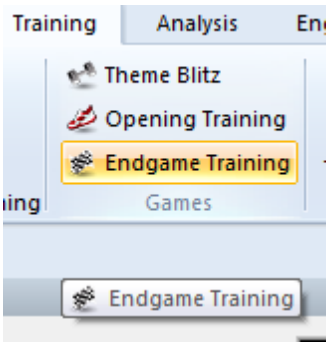
When you practice an opening against the computer, if you enter a move that is not part of current theory the coach will appear and warn you. It will offer you the following alternatives:

- **Show move:** This shows you the main line continuation in the position.
- **Ignore:** Lets the move you have entered stand. Of course this means you are deviating from the main line.
- **Take back:** This takes back the move you have entered and allows you to try again.

Note: you can extend the opening training database.

3.7.5 Endgame Training

Training Endgame training



This is similar to the openings training, except you get instructive endgame positions.

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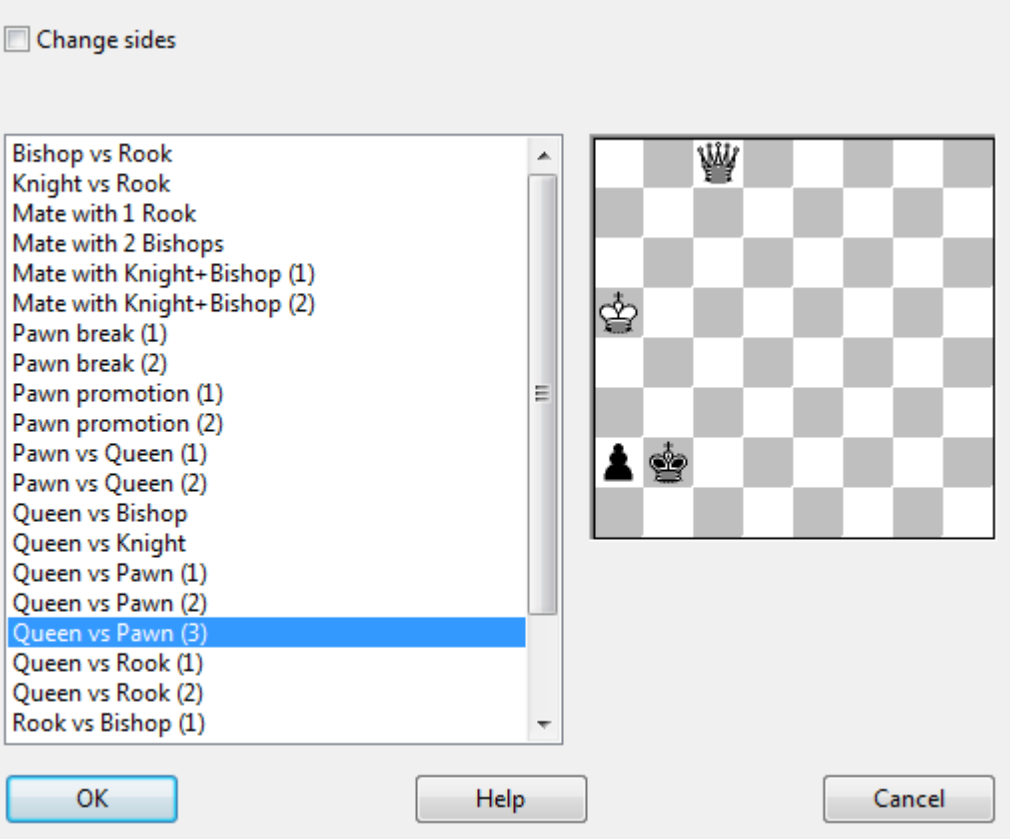


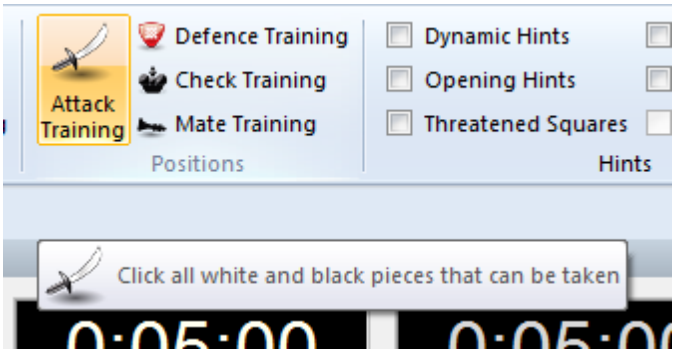
In the list of endgames that appears you can choose one to practise. The position is transferred to the main board and you can start playing against the computer. If you do not succeed in achieving the goal you can press Ctrl-N to start a New game. The same endgame postion will be set up and you can try again.

Here you have only one option: Change sides. This allows you to try both sides of the endgame.

Note: you can extend the endgame training database.

3.7.6 Tactical Training

Training Attack/Check/Defence/Mate training



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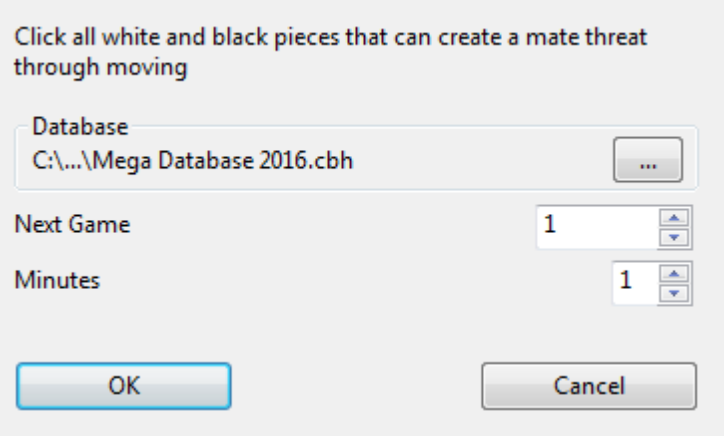
There are certain basic skills in chess, like the ability to spot tactical patterns quickly and reliably, that can be honed. The program has modules to help you train and improve your abilities in this area.

The special trainings modules automatically generate practise positions, presenting you with positions in which you must spot all pieces that are attacked, in check or not defended. The positions are taken from any database you select.

Click on *Training* and select one of the three options: **Attack, Check/Mate** or **Defence**.



In the dialog that appears you can select a database and a start game number. The program keeps track of the games it has already gone through and offers you the next one when you start again. You can also set the maximum time you get per position.

The above picture shows the dialog that appears for Attack training. The others work in basically the same way (except that the task given is different). This is what you have to find

- **Attack** – here you are required to click all white and black piece that can be captured by the enemy;

- **Check** – click all pieces that can deliver check to the enemy king by moving to a checking square;

- **Defence** – click all squares which are not defended by at least one friendly piece.

Clicking on squares will mark them green, clicking again removes the mark. If you solve the problem in the allocated time the program will automatically present a new position. If not it will show you the correct solution. You also get statistics of your results, and can proceed to the next training position. Click on the red "Stop" button on the top left to end the training session.

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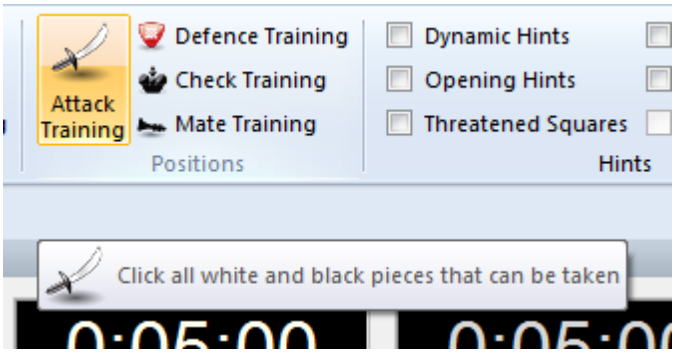
In the above example we are supposed to mark all white and black pieces that are under attack. The correct solution is almost there, except that the white bishop on g5, which is attacked by the pawn on h6, has not been marked. If we click on that piece the solution is complete and the program will load a new position. Otherwise it will display the solution, with the bishop marked in yellow.

3.7.7 Mate Training

Training - Mate Training



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In this training mode you have to select all the pieces which you can move to threaten mate. The positions are chosen by the program from a database which the user can choose.

Clicking on the "*Database*" button starts the Windows File dialog. Select a database on the hard drive from which the program should filter the required positions.

Note: You should select a large database in which you are certain that there are concrete checkmate positions. The mate training only works in combination with game databases. Position databases which only contain fragments are not supported! In selecting a game the program will only choose a position that is especially suited fot the training type.

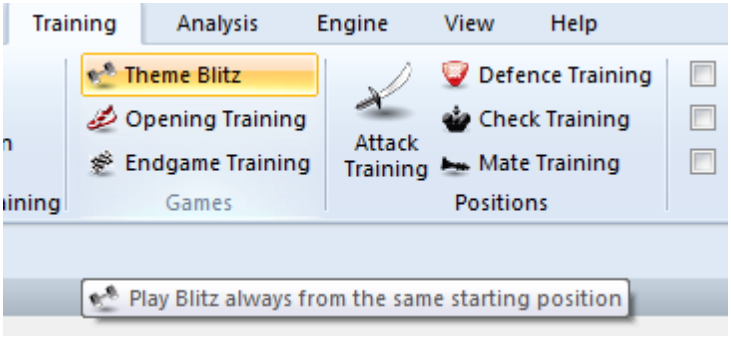
"*Next Game*" tells the program from what position in the database it has to start looking for another game. This is especially useful if you are using a large database. This setting is saved.

"*Minutes*" defines the maximum time to solve a problem. If you set the value to 1 the solution to a training problem is displayed after one minute. If, on the other hand, the problem is solved correctly and completely the ptogram immediately loads the next game and presents a new problem to solve.

Clicking "**OK**" loads the position from a game which is the most suitable for the mate training.

3.7.8 Theme Blitz

Training Theme blitz



In this mode the game starts from the position you have on the board. This might be an opening, or a middle or endgame position.

- To start a theme blitz get the starting position on the board, either by entering moves or entering a position.

- Now click *Training* *Theme blitz*. The position will be displayed in a dialog.

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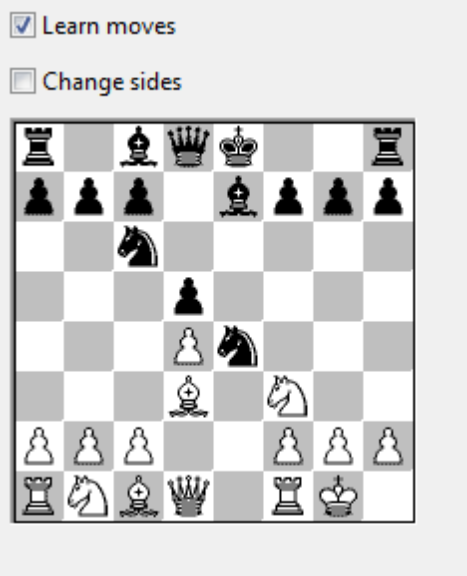

- Click OK to get to the board window and play out the position against the computer.

- When you have finished press Ctrl-N (= new game) to try again. The same starting position will be set up for the new game.

- If you click "Change sides" in the theme blitz dialog the sides will be switched every time you start.

- If you click "Learn moves" then you will get the initial position of the game every time you press Ctrl-N, and you are expected to play to the theme position on your own. If you enter a move that is not part of the variation the coach will appear and warn you. This works just like the openings training function.

3.7.9 Extend training database

The opening and endgame training that come with the program can be extended or replaced by training files you create yourself.

The basis is two normal databases which should be kept in the directory Program Files\ChessBase\Training. They should be called Openings.cbh and Endgames.cbh. You can also keep them in a different location, but then you must set the path in the Training options.

Practical tips

- For the openings training enter the moves of the main line of each opening and save the game. Give it a name to describe the opening (e.g. Benoni Defence - Classical Variation". You can use the White and Black fields to format the names nicely.

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- You can enter variations, which the program will choose at random on its side of the opening. You can influence the choice by giving commentary symbols. A "!" will double the number of times the move is played, a "!!" will triple it. Moves marked "?", "??" and "?!" will never be played by the computer.

3.7.10 Delete Training Results

The program offers training for beginners.

Using the menu Training - Attacking Chess/Defensive Chess you can train yourself to recognize certain powerful combinations on the chess board.

The results are stored by the program and displayed after every cycle.

Delete the file *Highscore.ini* to get started. Use the Windows Search function to locate the file on your computer.

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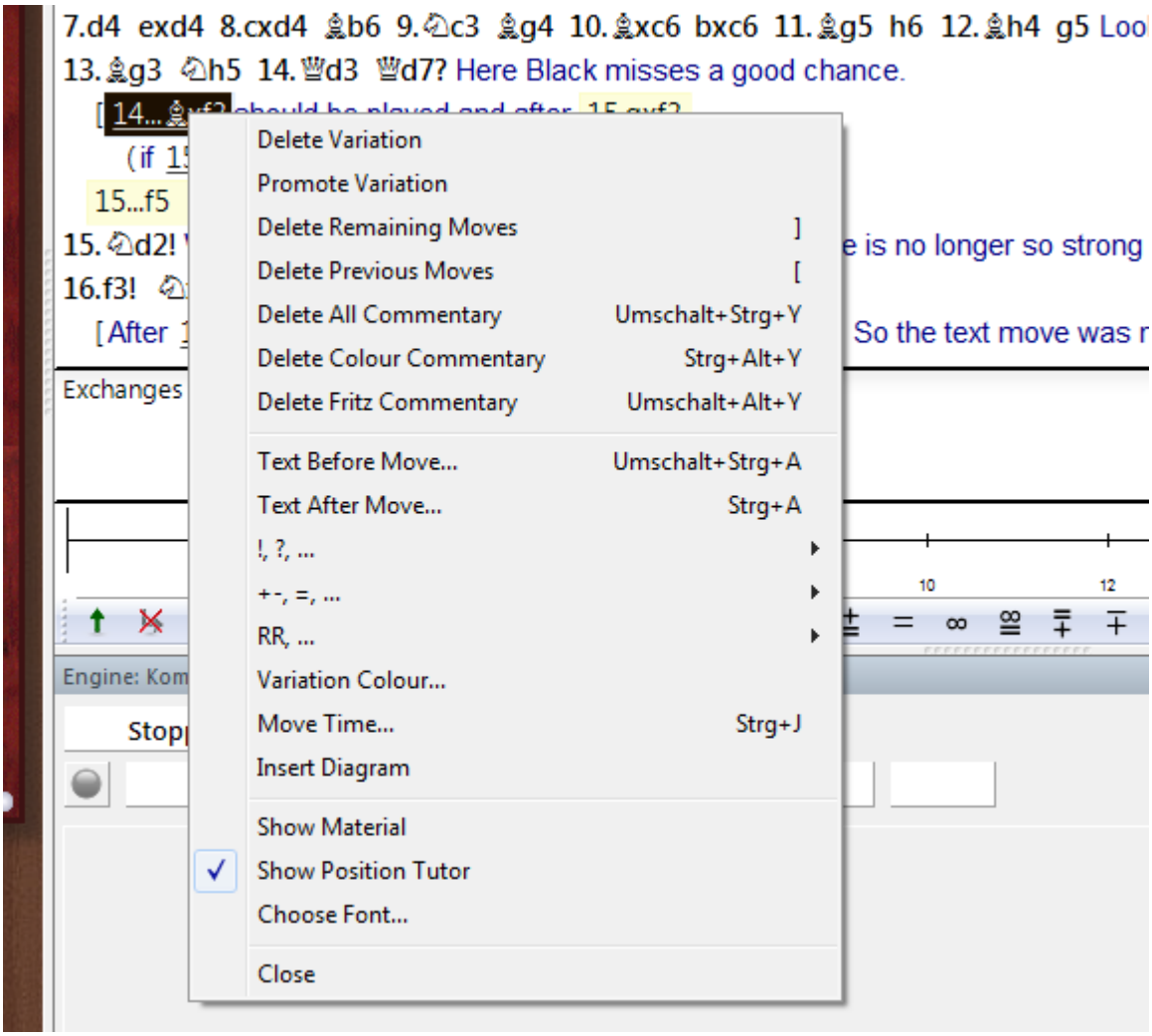
3.8 Commentary

3.8.1 Edit and annotate game

Right-click the game notation or book window



There are a number of functions and annotation tools for you to use. Remember that all changes are made in memory only. You must "save" or "replace" the game, as described in the previous sections, if you want to store them on disk.

Delete variation
This removes a line (and all its sublines) from the game. It applies to the line in which the notation cursor is currently located.

Promote variation
This raises the current variation to the next-higher level, making its parent line the subline instead.

Delete previous/remaining moves
Removes all moves before or after the current board position. If you delete previous

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moves, the program automatically inserts a position description so it can load the game fragment later.

Delete all commentary
Removes all variations and text commentary from the game.

Delete color commentary
Removes all coloured arrows and squares from the game.

Delete Fritz commentary
This deletes the search information the program sometimes inserts into the game (when you tell it to do so).

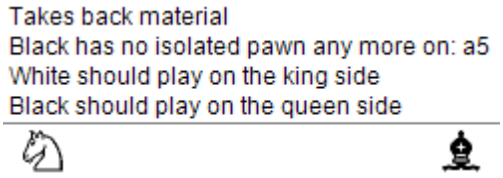
Text before/after move
Both functions give you a text editor in which you can type in commentary, which can be inserted before or after a move. The tabs at the top of the editor allow you to specify the language(s) to use for annotating the game. In the menu "Tools" – "Options" – "Language", you can specify which language(s) should be displayed when you load a game.

!,?... / +-,=..., RR, ...
This inserts chess commentary symbols (e.g., "!!" = an excellent move, "??" = a blunder) or position evaluation (e.g., "+–" = White is winning, "–/+" = Black is better), which appears in the notation of the game and is saved with the moves. RR commentary symbols appear before a move (e.g., "Better is" or "With the idea").

Variation colour
This allows you to change the colour of individual variations, (e.g,. to mark special lines or keep your own analysis in a special colour).

Insert diagram
Marks a position for a diagram in the printout. You can also mark it by pressing Ctrl-A (insert text after move) or Ctrl-D. When you print out the game a diagram will appear in this position.

Show material
Inserts a material balance display at the bottom of the notation window. In our example White has a knight for a bishop and pawn.



Show position tutor
Another useful coaching function is switched on by right-clicking the notation window and selecting "Show position tutor". This fires up a special chess engine which has a lot of chess knowledge. It generates a brief strategic description, in plain text, of the current board position.

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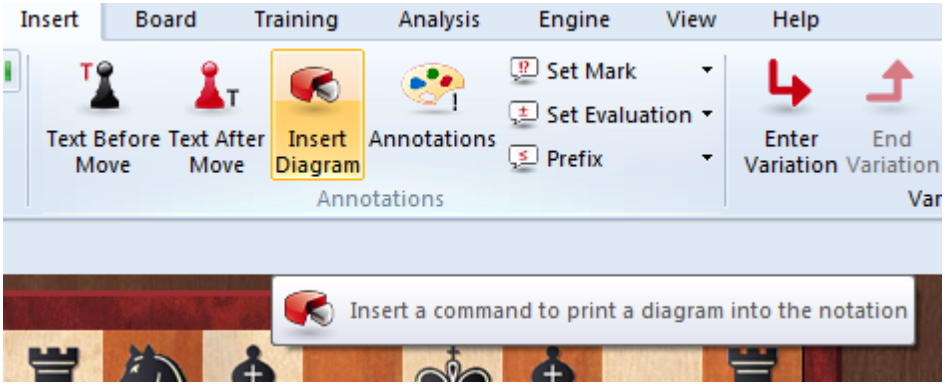
Choose font
Allows you to set the font face and size for the chess notation. Be sure to select one that begins with "Figurine..." so that the chess figurines and commentary symbols are displayed correctly.

Graphic commentary
The program uses coloured arrows and squares to illustrate tactical points and make strategic themes and plans more clear. You can manually enter these using a combination of mouse and keyboard. Press the Alt key and click a square or draw a line from one square to another. This will give you a green square or arrow. Alt+Ctrl does the same in yellow, use Alt+Shift for red. Clicking on the area around the board will remove the arrows and colored squares. All of this is great for chess lectures.

3.8.2 Text commentary

Insert Text before/after move



An annotation is text that you can enter to comment on a move or position. This is how you type in text:

- Right-click the notation and select "Text after move". You can also press Ctrl-A.
- Right-click the notation and select "Text before move". You can also press Shift-Ctrl-A.

In both cases, a text editor appears in which you can type in your annotations.

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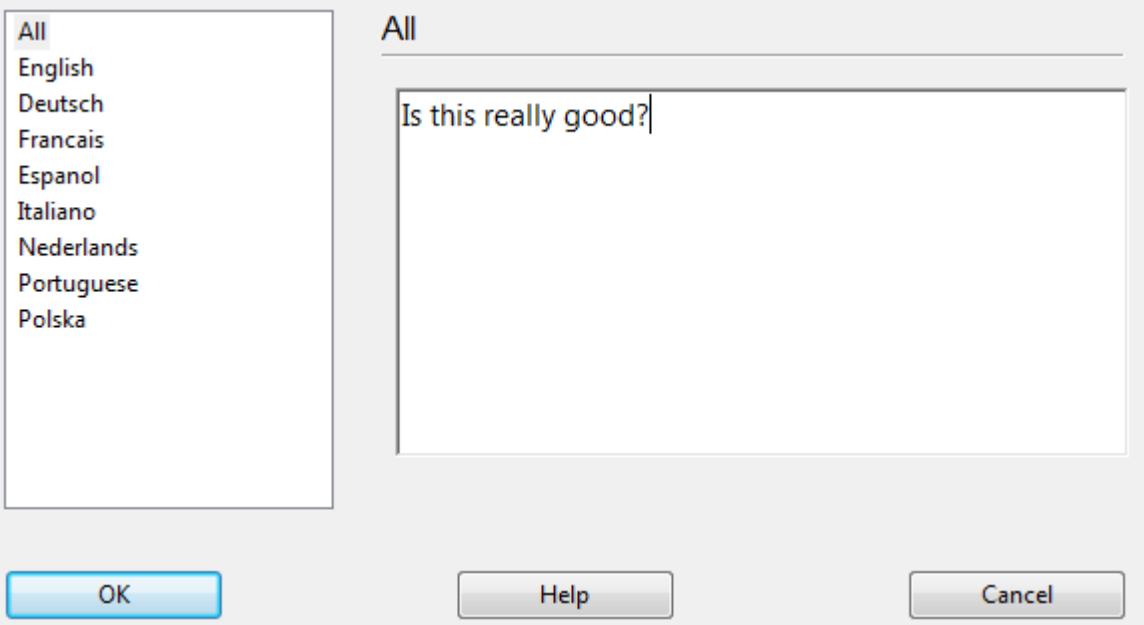

You can use most of the normal Windows edit functions while entering your annotations. For instance you can press Ctrl-X and Ctrl-C to cut or copy bits of text, and Ctrl-V to paste them. You can even insert text from a different source by copying it to the Windows clipboard and then pasting it into your own text.

You can also use all the special chess commentary symbols, which can be typed in from the keyboard.

Some points to note

- You can resize the text input box.

- Text commentary can be written in different languages. Before typing it in, you can specify whether it is neutral or in one of the given languages: English, German, French, Spanish, Italian, Dutch or Portuguese.

- In the menu Options – Language you can determine which languages should be displayed when you load a game. "All" is language independent and will always be displayed.

- You can mark a position for a diagram by inserting a Ctrl-D character into the text. When you print out the game a diagram will appear in this position.

3.8.3 Commentary symbols

In chess there is a system of commentary that uses special symbols to annotate moves or positions. The advantage is that they can be read in any language and immediately understood by chessplayers all over the world.

CTRL-ALT-S starts the *Symbol Palette*

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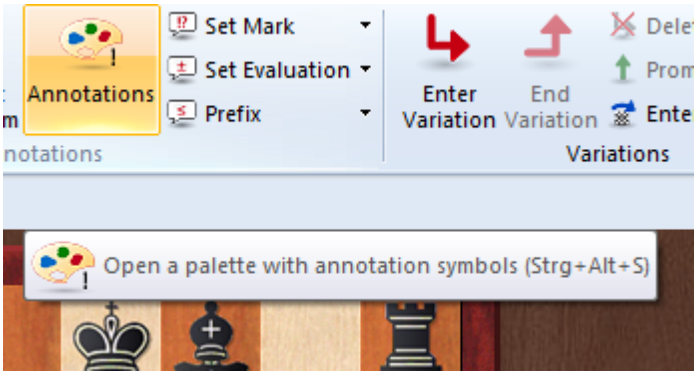
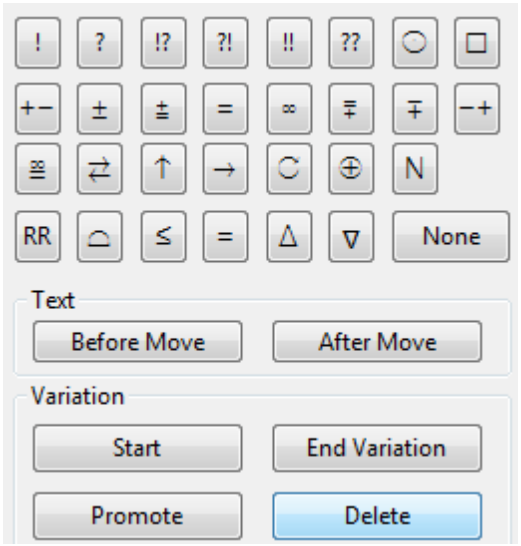


The program knows all the international chess commentary symbols.



Here are the most important ones:

Symbol	Meaning
!	Good move
!!	Very good move
?	Bad move
??	Very bad move, blunder
!?	Interesting move
?!	Dubious move
=	The position is about equal
²	White is slightly better
±	White is clearly better
+-	White is winning
³	Black is slightly better
µ	Black is clearly better
-+	Black is winning

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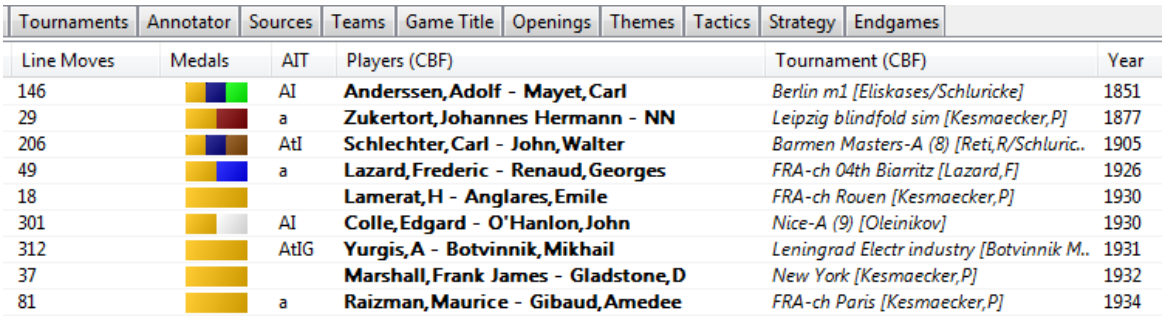
ƒ	With attack
,	With initiative
„	With counterplay

How to enter commentary symbols from the keyboard.

See also LiveBook ..

3.8.4 Medals

If a game has some interesting aspect, it may receive a "***medals***". The medals appear as coloured stripes in the games list. The main use of the medals is to search for games that all belong to certain categories.



Line Moves	Medals	AIT	Players (CBF)	Tournament (CBF)	Year
146		AI	**Anderssen,Adolf - Mayet,Carl**	*Berlin m1 [Eliskases/Schluricke]*	1851
29		a	**Zukertort,Johannes Hermann - NN**	*Leipzig blindfold sim [Kesmaecker,P]*	1877
206		AtI	**Schlechter,Carl - John,Walter**	*Barmen Masters-A (8) [Reti,R/Schluric..*	1905
49		a	**Lazard,Frederic - Renaud,Georges**	*FRA-ch 04th Biarritz [Lazard,F]*	1926
18			**Lamerat,H - Anglares,Emile**	*FRA-ch Rouen [Kesmaecker,P]*	1930
301		AI	**Colle,Edgard - O'Hanlon,John**	*Nice-A (9) [Oleinikov]*	1930
312		AtIG	**Yurgis,A - Botvinnik,Mikhail**	*Leningrad Electr industry [Botvinnik M..*	1931
37			**Marshall,Frank James - Gladstone,D**	*New York [Kesmaecker,P]*	1932
81		a	**Raizman,Maurice - Gibaud,Amedee**	*FRA-ch Paris [Kesmaecker,P]*	1934

Medals are sometimes awarded automatically by the program. But in most cases they are already in the game, put there by the contributors to the ChessBase games collections.

3.8.5 Elements of commentary

Elements of the commentary

In addition to variations and textual annotations, the program offers further supplementary information after a tactical analysis.

Evaluation profile

Another useful piece of help and guidance during the playing through of games integrated into the game is offered by the Evaluation profile which is generated from tactical analysis.

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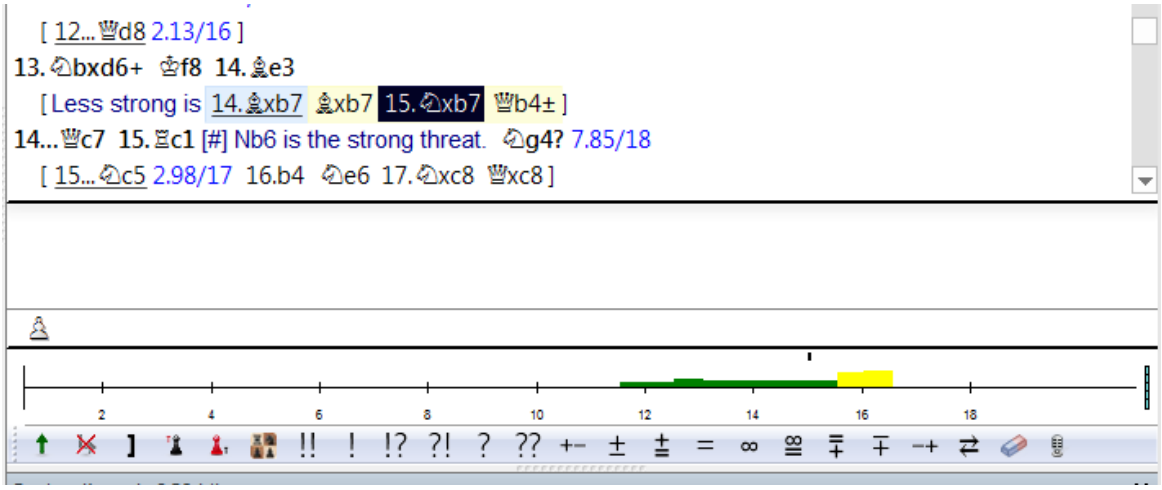
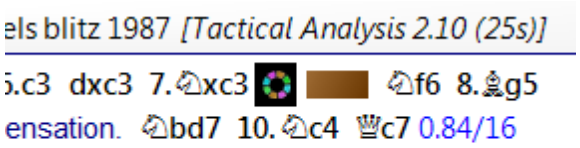


The evaluation profile shows graphically during the course of the game the evaluations of the chess engine. Using the evaluation profile below the notation you can recognise at a glance when playing through a game just when it "turned" one way or the other.

Whenever you click on a specific place in the evaluation profile, the relevant position is immediately loaded into the board window and displayed. So it only takes a few clicks when you are playing through a game to navigate directly to the decisive moves and the critical phase of the game.

Graphic commentary

In the notation you will frequently find things highlighted in colour.



What is the meaning of this circle? This symbol within the notation indicates that graphic commentary is displayed which has been added by the Tactical Analysis.
By means of this the program provides hints as to possible manoeuvres or the effects of forces on the board.

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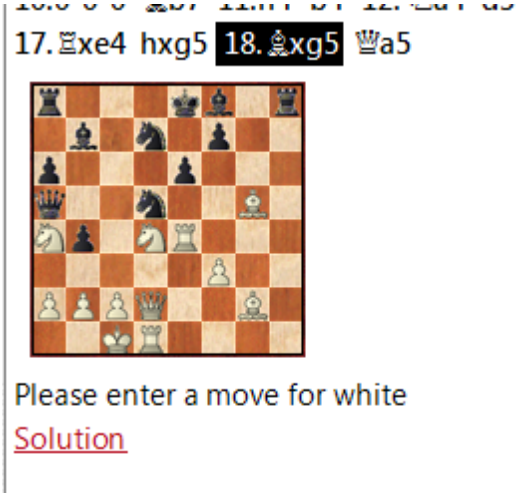
Clicking on this symbol immediately displays the relevant graphic commentary on the chess board.

Diagrams – Training questions

At critical moments of the game the program inserts diagrams into the notation.



This is to stimulate you to find for yourself the best continuation whenever you are playing through a game. If you cannot manage it, then a click on *Solution* will help.

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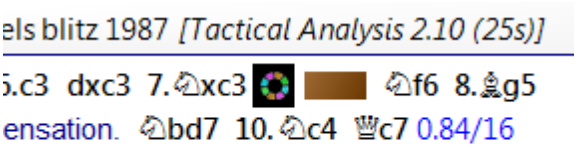
3.8.6 Graphic commentary

The program uses coloured arrows and squares to illustrate tactical points and make strategic themes and plans more clear.

In the notation you will frequently find things highlighted in colour.



These are entered using a combination of mouse and keyboard:

Mark square green, draw green arrow	Press the Alt key and click the square or draw a line from a to b.
Mark square red, draw red arrow	Press Alt + Shift and click the square or draw a line from a to b.
Mark square yellow, draw yellow arrow	Press Alt + Ctrl and click the square or draw a line from a to b.

- If you draw a line with the same colour again, the original line is erased.

- A right-click on the area around the board erases all graphic elements from the current position.

The graphic commentary is stored together with the game and appears automatically during replay.

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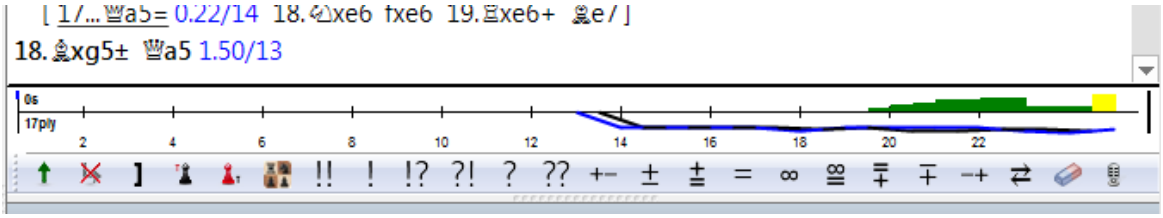
3.8.7 Toolbar in the notation

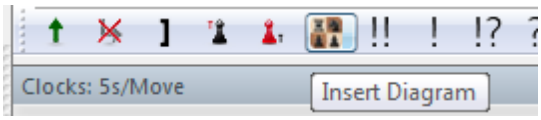
In the notation window the program makes available the toolbar which was introduced for the first time in ChessBase 14.



This toolbar at the bottom of the notation puts at your disposition the most important functions for the treatment / annotation of games.

Here it is possible to quickly work on annotating or to change the game structure of the notation.

The meaning of the individual buttons is displayed in natural language by means of mouseover (hovering with the mouse cursor over the symbol)!



All textual comments are shown in the language which was last chosen in the settings dialog for text comments.

The program checks whether a text is available, then the tab "All" is checked to see if a text is available.

Then all languages are checked to see whether they have a text. If there is no text, then the language setting for annotations is used.

Variation dialog

Move input has been clearly simplified compared to earlier versions. The variation dialog is displayed less frequently and on the input of an alternative move in the notation almost always a variation is set up – without a variation dialog.

It is only with the final move that there is always a variation dialog, since according to experience wrong entries are often corrected at this point.

3.8.8 Exporting a game

Whenever a board window is open you have the option to publish with a single mouse click the game notation as a ready-made HTML document. That makes sense, for example, if you wish to send by e-mail to a friend game notation which he or she can play through or to embed the game on a website.

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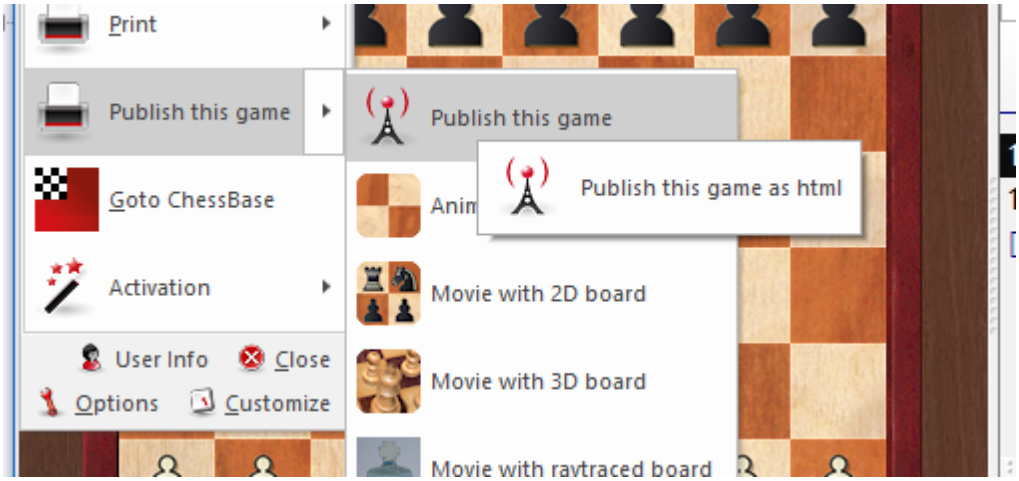
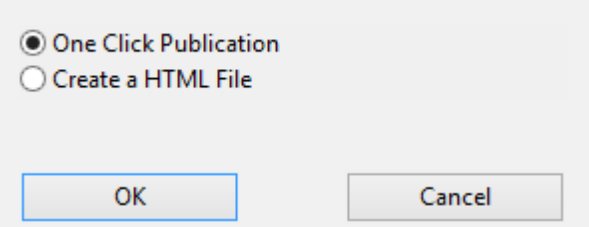
The function is available on the menu bar under *File* *Publish this game* – *Publish this game*.



You now choose "*One Click Publication*" in order to upload directly to our server game notation which can be played through.



In the browser – here *Firefox* – the result looks like this:

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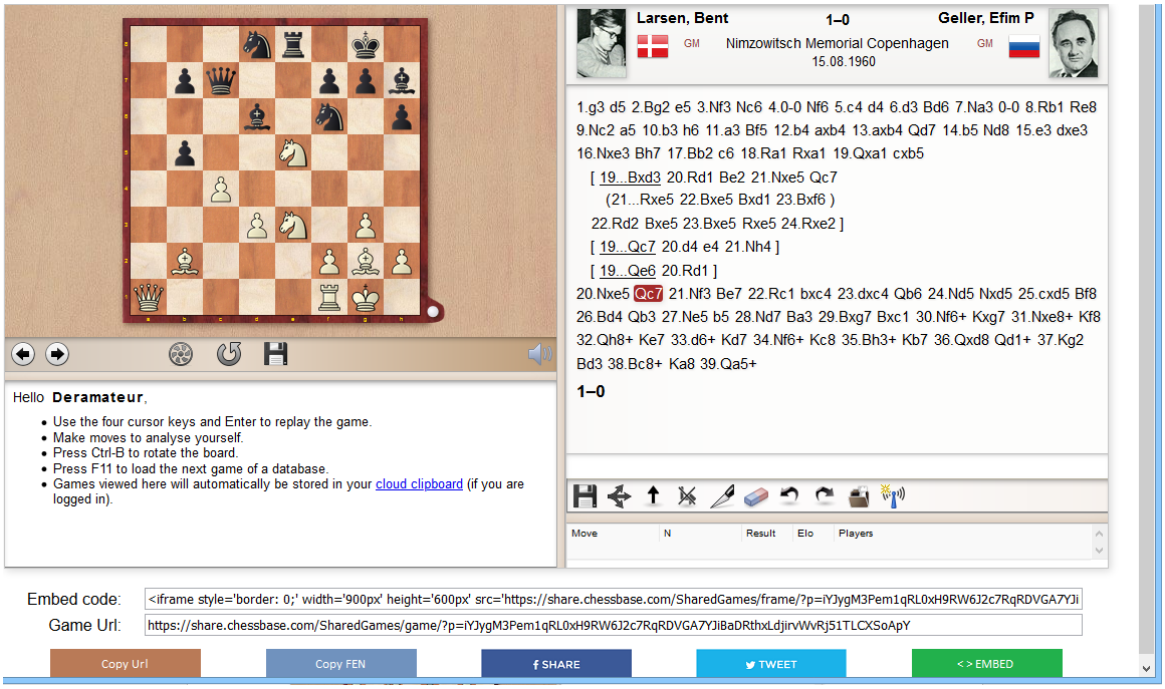

Below the board you will find the appropriate function buttons. "Copy URL" copies the link directly to the clipboard. For example, you can paste the latter into an e-mail or alternatively you can publish the game notation on various social networks (Facebook, etc.).

3.8.9 Chess films

The Graphics Interchange Format (abbreviation: GIF) is a popular data format for coloured images. It makes possible an extensively loss-free compression of the images and thus is in frequent use on the internet.

In addition, it is possible to save several individual images in one file, which appropriate viewing programs such as web browsers are able to interpret as an animation, in other words a film.

In doing so the individual images are played one after the other with a time delay by the browsers or view-ers. This makes possible the broadcast of short film-like files and for that reason animated GIFs are very common.

The program offers the option of generating in the form of an animated film the notation of a game. That allows the presentation of interesting games in the different social networks.

This option in the board window from the menu bar under *File* *Publish this game*.

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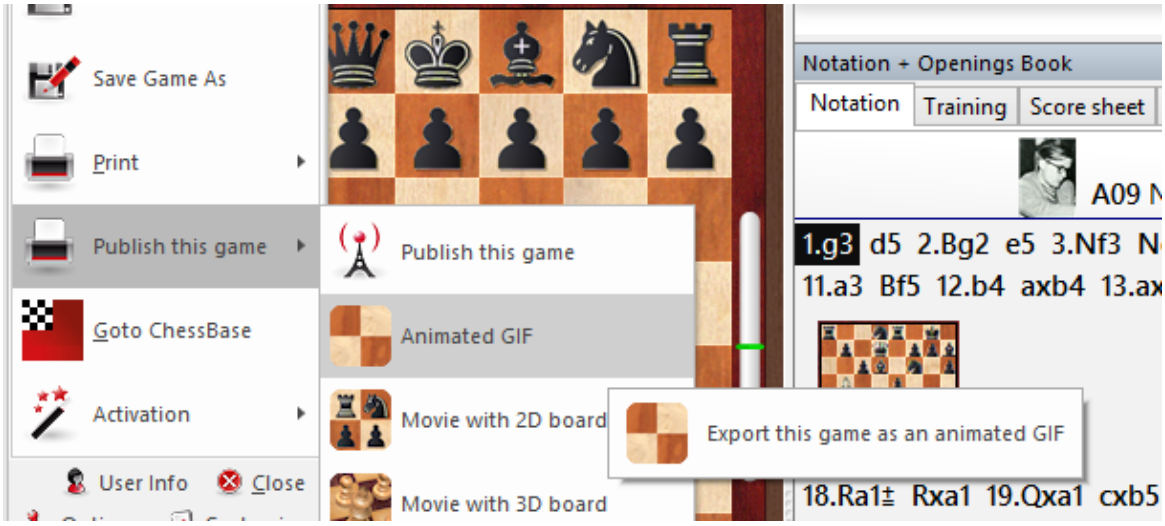
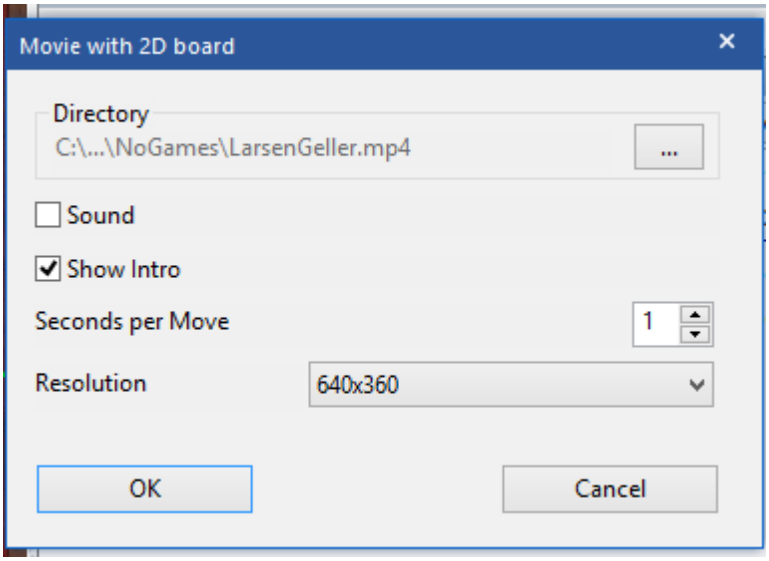


The program plays through the individual sequences of moves in the notation and offers the user the pos-sibility of saving the animated GIF file. This file can be used in Twitter, What's App, etc.

Alternatively you can export the notation from the program as an animated film in the MP4 format.



In the settings dialog which is displayed you can specify the pathway and resolution of the film, the game headers are taken over as standard as the name for the file which is to be generated.

In addition in the dialog box you can fix the speed of replay for each move, set here at three seconds per move. The result of your export is first displayed in a preview window.

The procedure for producing films in the 3D format is in principle identical. There the user has additional functions available to him or her in order to set the camera angle

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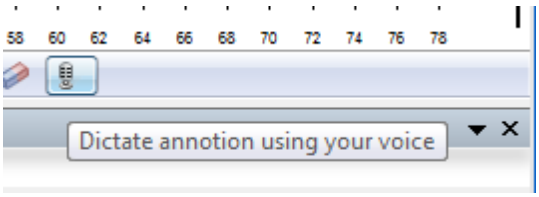
for the ani-mation. Be aware that in order to generate the 3D files or the Raytracing views the process can take some time, according to the performance of your computer. This is especially the case for the production of a film with the realistic 3D Raytracing view!

3.8.10 Spoken comments via microphone

You can also enter spoken commentary with a microphone.

To do so, click on the microphone symbol in the tool bar of the notation window.

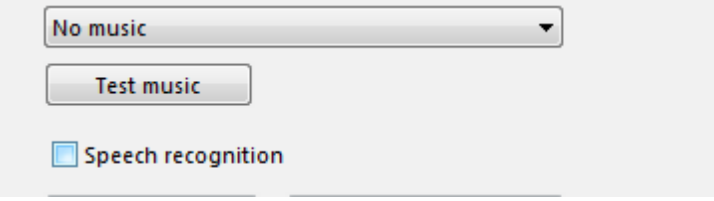
Text which is recognised will be automatically inserted into the notation!



In the window marked "*Speech to text*" you have the possibility of configuring the hardware you have with various options. By means of Start you begin the recording. If you activate Auto, then after every pause an attempt is made to interpret your contribution as text.

The support for speech recognition is dependent on the language version of your Windows and the speech packages installed.

The settings can be chosen under *Options* *Multimedia* *Speech recognition*.



If in Fritz you use the same language as previously installed on your computer, then wrongly spelled words are highlighted in Chat. A right click on the word immediately calls up suggestions for improvement.

3.8.11 Chess Media System

The *Chess Media System* allows chess teacher and lecurers to comment on games while moving the pieces, drawing arrows and marking squares on the graphics chessboard. Using a video camera or simply a microphone, chess experts can hold lectures or comment on games, while moving the pieces on the board. These lectures can be recorded and viewed offline.

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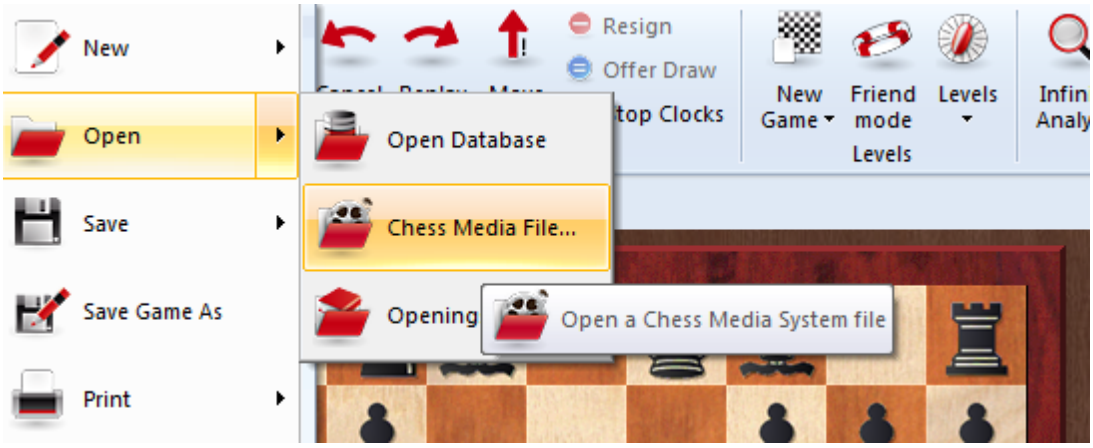
The lectures can be transmitted live over the Internet and broadcast on the Playchess server, or they can be recorded and distributed on CDs and DVDs.

How exactly does the ChessBase Media System work. It makes use of the Windows Streaming Media format (the files have the ending .wmv and .wma) to capture video and/or audio files on the fly. Whatever is done on the chessboard is recorded by the program and instructions are embedded in the multimedia stream. When the file is replayed everything is faithfully repeated on the graphic chessboard.

There are different way of viewing a lecture:

- If you have the lecture on a CD or DVD, like the ones of Garry Kasparov, Viktor Kortschnoi and other great teachers and trainers, then you simply open a file using "*File Open Chess Media File*". The program will open a chess media window and you can sit back and watch the game.



- If the lecture is on Playchess then you load the game. The program will detect the Chess Media broadcast and open the media window. Usually lectures and broadcasts

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have names like “TV ChessBase”. Note that no multimedia broadcasts are available in the main playing hall and in other tournament rooms. They are generally to be found in “Broadcasts”, in "Training and Teaching” and in the “Chess Media System” room. In the latter there are a lot of recorded lectures.

If the Media System window does not open by itself you can do this manually, using *View Chess Media System* .

At the bottom of the media window there are some buttons which allow you to open a new file, start, stop and pause the replay, change the volume, and move the slider to jump to a different position in the multimedia file. Note that if you do this it will take a few seconds for the position on the board to synchronise (it is stored at regular intervals in the media file).

Note that you can pause the game at any stage and use Ctrl-S to save it in a separate database. You can also start an engine and analyse the position on the board. But make sure to save your analysis in a separate database before you continue or it will be overwritten by the game that is being replayed in the media file.

System requirements

In order for you to watch and hear the Chess Media lectures you need to have a working sound system on your computer; and to have the last Windows Media Plaver Version installed. This is available free of charge on the Microsoft web site. It is probably already installed on your computer.

3.8.12 Enhancement to the Chess Media System

When you are playing Chess Media files there are two function buttons which allow you move forwards and backwards within the video in 10 second steps.

If you are looking at the videos on a small screen (notebook), a double click on the dark area lets you quickly switch between the layout with all the function buttons and the space saving view. To switch back to the standard layout another double click on the edge of the window is what you need.

3.9 Computer chess

3.9.1 Engines

The chess playing part of this program is separate from, and independent of the graphical interface. The playing part is called the "chess engine". The engine can be changed (Menu Tools – Engine), and the interface can support more than one engine at a time.

You can stage engine matches and engine tournaments.

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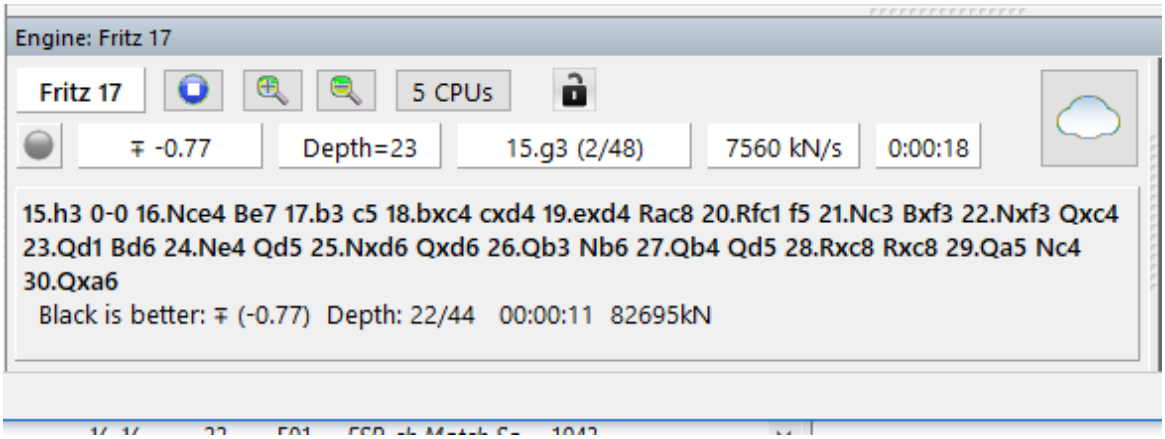

ChessBase regularly publishes new engines, keeping you completely up-to-date with the strongest chess playing software in the world.
See also Engine Interface ....

Other current top engines (November 2019)

- **Komodo**

a strong chess program with ratings well above Elo 3000. Komodo is especially useful for opening analysis, because its grandmaster programmer has made sure that the program's evaluations generally agree with accepted theory. Komodo also excels in the evaluation of positions with material imbalance, which it handles more intelligently than other top engines. The endgame of Komodo has been improved by the use of Syzygy tablebases*, which employ only the most essential information, to save computing time and memory. Another unique feature of Komodo is its superior performance when using eight or more cores.

- **Houdini**

Houdini also offers all the virtues and elements that made its predecessor the most popular analysis program in the chess world, but now also uses extremely precise evaluation functions that directly correlate with the engine’s expectations of winning a particular position. As well as this, the improved “tactics mode” now makes Houdini the best tactical puzzle solver ever.

See also Cloud Engines ....

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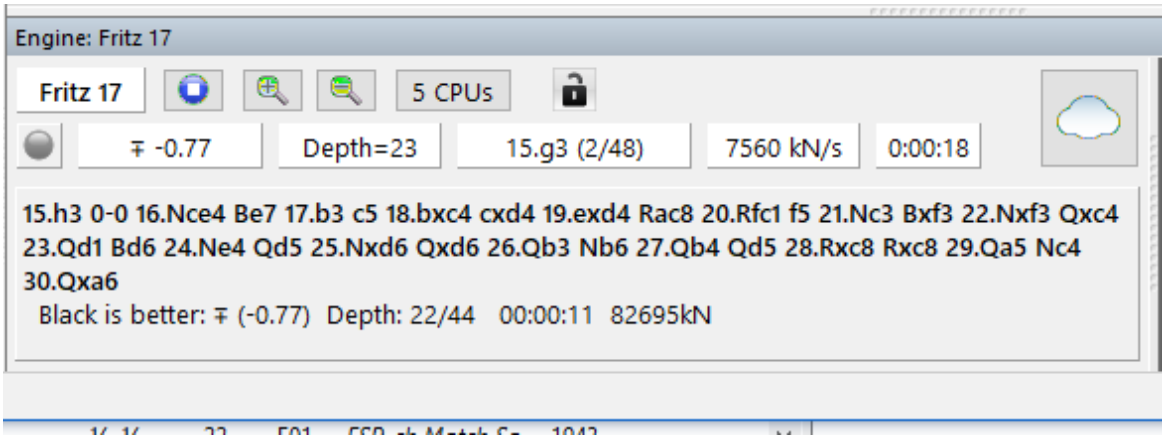
3.9.2 Fritz 17 engine

The chess engine *Fritz17* is bundled with the program. This engine was developed by the computer chess pioneer *Frank Schneider*, works with the classic evaluation criteria / search techniques and can be used on any computer without limitations.



In addition the bundle includes the engines *LCZero* and the well-known *Stockfish 10*.

3.9.3 Fat Fritz

3.9.3.1 Fat Fritz Engine

At the end of 2017 the *AlphaZero project* created a furore in the computer chess scene. This new program followed a totally different approach from the chess engines which had been developed by standard techniques over a period of many years. AlphaZero questioned many rules and principles which for years had been considered indispensable for the development of programs. This program simply knows the rules of the game and takes advantage of sophisticated algorithms concerning the ability to learn. Its playing strength is established exclusively on the basis of games it itself has played and analysed! AlphaZero gets by without having assimilated programmed specialised knowledge and after only a few hours of training it was able to measure up to the best specialised programs. Unfortunately AlphaZero is purely a research project and is not available to interested chess players.

After the attention grabbing success of AlphaZero the Open Source project *Leela Chess Zero*, or ***Lc0***, was founded. The goal it set was to offer to users who were interested in chess an engine which works with techniques similar to those behind AlphaZero. The results achieved so far are extremely promising and a up-to-date version of Lc0 is part of the Fritz bundle.

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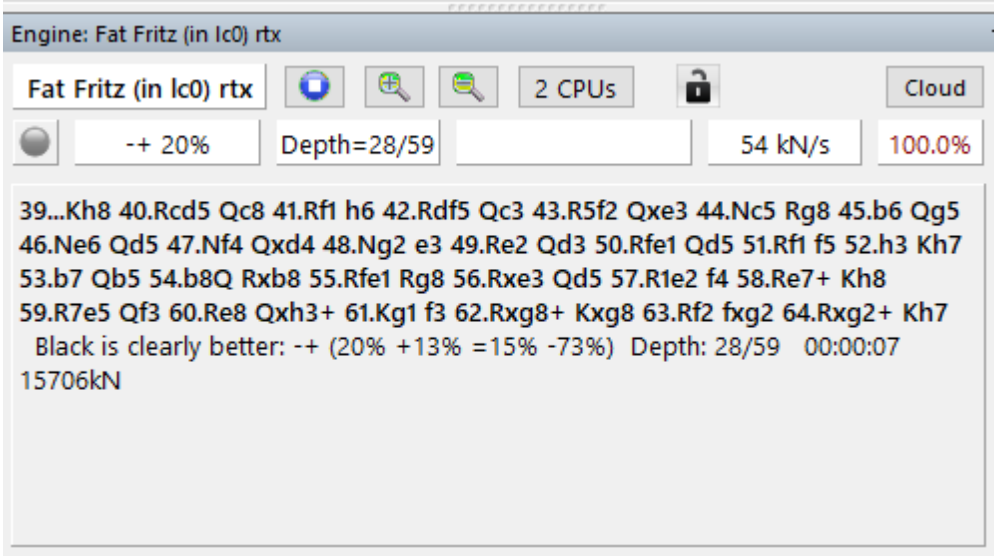

The neural engine ***Fat Fritz*** is based on the open source project *LCZero* and offers many similar routines. However, the neural network was not trained/developed by games against itself ("Zero" approach). The playing strength of Fat Fritz is based on analyses of games from the Mega Database, computer games and the endgame databases. The results obtained by us internally against other top programs are very promising and we are proud to be able to offer to our users this strong and conceptually novel program.

The best way to understand the difference between Fat Fritz and traditional engines is by looking at the development of the engine. Thus, traditional engines learn at a very early stage – as do most beginners – what the values of the various pieces are. Fat Fritz started to learn chess without this information. Instead it was fed with literally billions of different positions which it examined in order to develop on this foundation its own understanding of chess. So Fat Fritz, unlike classic chess programs, does not operate based on material considerations and neither can nor should do so. The engine judges a position purely on win or loss ratios. The result of this is that there is no petty counting of material, it impartially plays for position.

This is more than just an interesting detail, but something of great practical relevance. Since in a whole series of positions a traditional engine sees no way to improve on the position with best play for both sides and therefore evaluates it as absolutely level with a value of 0.00. Fat Fritz perhaps also evaluates such positions as level, but the engine also sees which of these positions tend more frequently than others to lead to a decisive result. Nowadays opening analyses rarely lead directly to a win against a well-prepared opponent and so it is helpful to know which moves or which positions provide the opponent with the greatest chances of making a mistake.

The engine works with the probability of a win instead of evaluations of positions! So in the evaluation the factor which is taken into account above all else is the probability of a win. To achieve that the engine plays through thousands of games at a speed of under a hundred to several tens of thousands per second (N/S), no matter which version. One peculiarity of Fat Fritz consists of the fact that the engine also makes use of the resources of the high performance processors of the graphics card! This leads to a clear acceleration of the performance! Fat Fritz supports the RTX Mode

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as well as the CUDA Mode which at the time of writing is supported exclusively by the NVIDIA graphics cards.

From the description it becomes clear that Fat Fritz requires a very high performance graphics card, e.g. a ***NVIDIA RTX 2060***, in order to achieve the performance of which it is capable. Without an appropriate GPU (graphics processor) the program can be slowed down by a factor of 1000, a fact you must take into account when experimenting with the engine. Therefore Fat Fritz can be used on a pure CPU (main processor), but nothing resembling its playing strength on a fast GPU can be achieved.

Tip: Whenever you weigh up whether to acquire an *NVIDIA* card, you need to take into account whether your network provides you with sufficient reserves for the desired performance. In compact and power saving desktop PCs it is possible that there are no slots into which to plug such graphics cards. It is absolutely necessary to clear this up before the purchase of a GPU (graphics card). Ready-made gaming computers with, e.g., AMD Ryzen processor and an RTX graphics card can be had at the moment from around €1100.

On a test computer with RTX 2080 in RTX mode the speed is around 20 thousand positions per second, in CUDA mode approx. 45% of that. Older graphics cards achieve clearly lower values, only NVIDIA cards support the two modes mentioned, CUDA or RTX!

3.9.3.2 Summary

Fat Fritz works with a neural network which it has itself created or "learned" on the basis of chess games. That is the evaluation function, which finally evolves from a huge number of weightings which individually have no firm significance.

So the network teaches (trains) a large black box, which at the end spits out probabilities for the moves. It also does not give a traditional evaluation, the result being thus

e4 54%
d4 55%
c4 51%

etc., which could again be calculated as an evaluation.

3.9.3.3 The "OpenCL" version

When you start the engine in the "*OpenCL*" mode, first of all the hardware is analysed. Doing so ensures that the engine runs sensibly and as far as possible loss-free on your computer. When the engine is used, e.g. for analysis, the graphics card (GPU) fully utilised to 100 %, whilst the CPU (processor) is only used to approx. 12 %.

Tip: the diagnosis of the hardware configuration is carried out during the installation. Depending on the graphics card this mode can result in totally different results. These results are dependent on the graphics card being used.

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3.9.3.4 Different versions

As part of the bundle you will find three different versions: Version 1 for CUDA (NVIDIA), one for OpenCL (all graphics cards), one for the CPU (main processor).

The CUDA version can operate in two modes: on RTX cards in RTX mode and otherwise in CUDA mode. The engine was tested in combination with a RTX 2080.

Performance differs greatly according to the setting on the test computer:

- The RTX version brings 100% performance.
- The CUDA version on the same GPU (graphics processor) 45%.
- The OpenCL version on the same GPU (graphics processor) 20%.
- The CPU version (main processor) with an 8 core CPU 0.02%.

Users with AMD graphics cards can use exclusively the OpenCL version. Tests with a computer without a separate graphics card show that the performance with very old or simple graphics cards will not be much better than when using the pure CPU version.

All three versions which access the resources of the graphics card are limited to 2 cores. The value may change but expanding the number harms more than bringing any further benefit.

3.9.3.5 The evaluation display in Fat Fritz

For the display of evaluations the new engine option "*Display win probability*" has been provided as a preset. A neural engine playing with Monte-Carlo Techniques gives evaluations of win probability for positions.

New parameter when right clicking on Engine:

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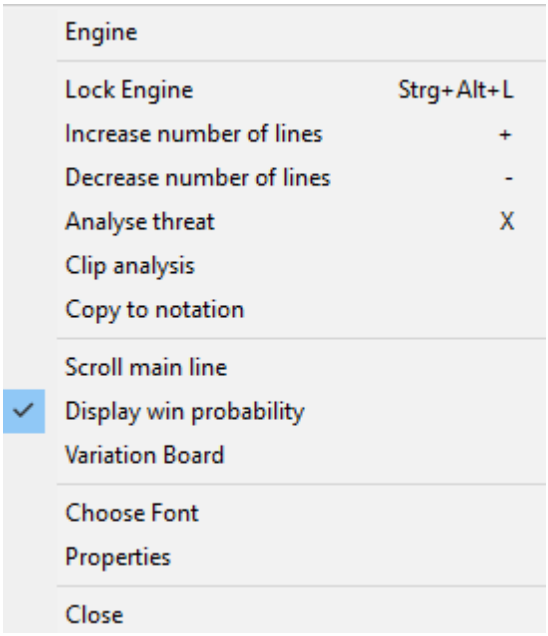
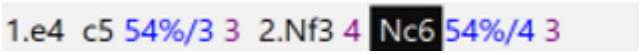


In the engine window the display looks like this:

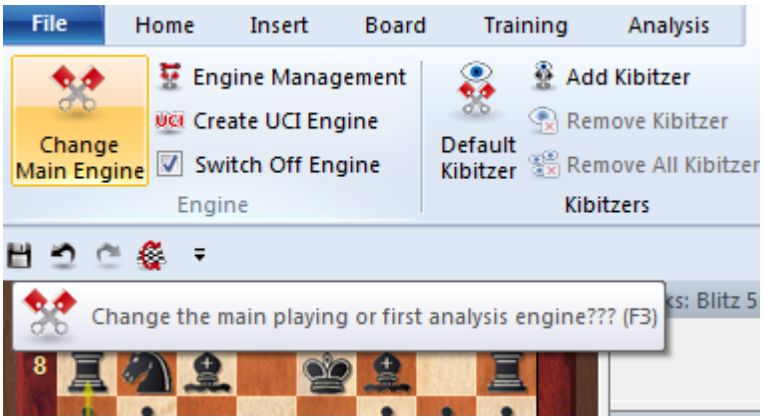


3.9.3.6 Engine parameters

We urgently suggest that you leave the parameter settings just as you find them on delivery. The majority of the parameters set refer to internal procedures which have nothing to do with chess!

3.9.4 Load Engine

Menu: Engine Change main engine



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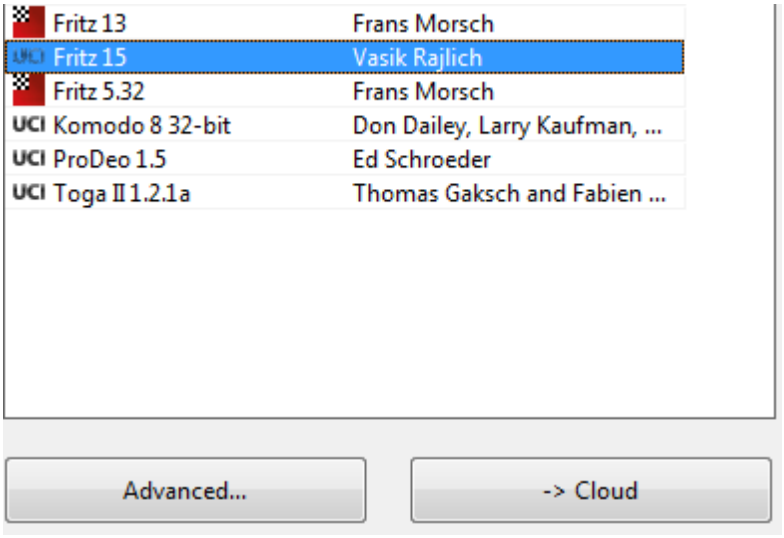
This brings up a dialog box in which your can load engines and set different engine parameters.



Advanced offers you more possibilities. **->** Cloud Engines ...

- **Clear hash tables:** This removes all information from the hash tables (which might have been filled in an earlier search).

- **Engine parameters**: click to set the engine parameter available for the selected engine.

- **Hash table size**: This is important if you are looking for optimum strength, especially in longer time control.

- **Permanent brain** is the term for thinking on the opponent's time. This is an advantage because the engine often guesses what the opponent is going to play and then has already calculated its reply.

- **Tablebases** are special endgame databases which allow the program to play five-piece endings perfectly (even find them in the search).

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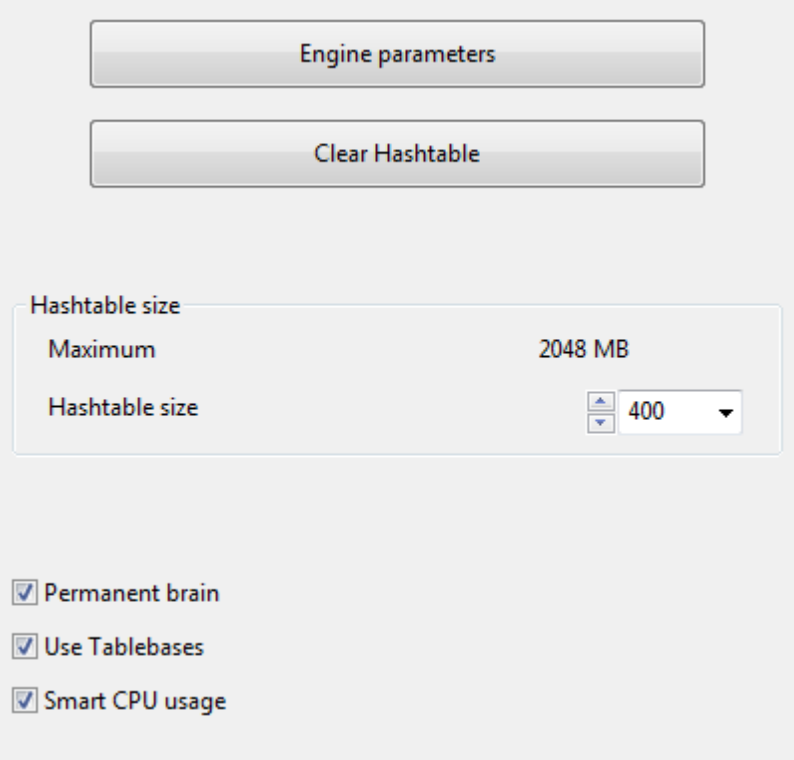
3.9.5 Advanced



Engine parameters: click to set the engine parameter available for the selected engine.

Use Book/Use Livebook : Active those Databases for the access.

Hash table size: This is important if you are looking for optimum strength, especially in longer time control.

Tablebases are special endgame databases which allow the program to play five-piece endings perfectly (even find them in the search).

Smart CPU usage
On a computer with hyperthreading (i7 4 cores + 4 hyperthreading) a deep engine only starts with 4 threads/processes. On a computer without hyperthreading (i5, AMD) it starts with n-1 threads/processes. If you turn this option off it starts as in the older version.

Exception: The user has explicitly defined the number of threads/processes, for instance by defining a UCI engine.

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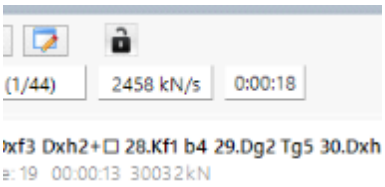
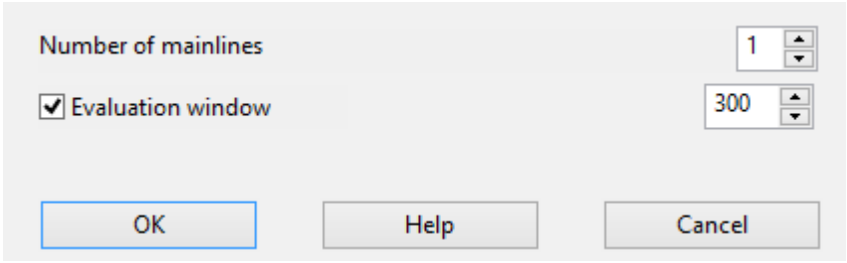
3.9.6 Settings Engine Window

With a click on the mini-symbol in the engine window you can adjust way the information is displayed.

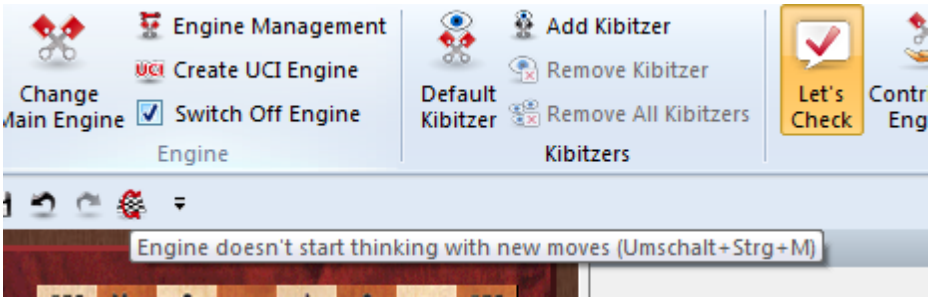


This calls up the settings dialog for the display of information.



3.9.7 Switch off engine

Engine Switch off engine



Normally when you enter a move the program will start playing against you. You can also switch to infinite analysis, in which case the engine will calculate in the background while you enter moves for both sides.

If you want to turn the engine off altogether you can do so with "Switch off engine". After this the engine will not run in the background, which is useful if you are running a number of program at the same time.

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3.9.8 UCI Engines

What is UCI?

This program was designed as a multi-engine system. This means that the graphical user interface and the actual chess engine (the module that calculates moves) are strictly separated. They use a pre-defined interface to communicate with each other.

UCI stands for *Universal Chess Interface*. It is a communications standard defined by *Stefan Meyer-Kahlen*. The UCI interface is closely related to the "Winboard" protocol. This means that existing Winboard engines can be very easily adapted by the authors to run under our interface. For these programmers the new UCI interface has the following advantages:

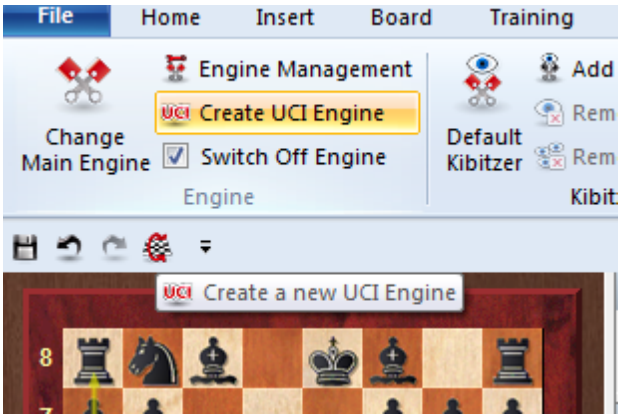
- The engine can be run under an interface which has numerous advanced testing facilities that allow them to improve the strength of the engine.

- The engine runs at full performance and strength without the need of additional adapters.

- The engine will become available to a large number of users, who are able to install it without the need for complicated configuration, as is often the case with Winboard.

- The UCI protocol may be used without any license fees, for private and for commercial purposes.

A UCI Engine is installed using the menu *Engines* *Create UCI Engine*. The dialog has two purposes:



1. A new UCI engine can be selected and made available to the program.

2. The parameters of an engine that has already been installed can be modified. The modified engine can then be saved under a different name.

With regard to renaming engines there are certain restrictions. The original engine name must be contained in the new name. If the engine is saved with the standard settings the name must be left in its original form, i.e. you will not be able to edit the engine name at all. On the other hand if you change the default parameters then the name must also be changed (retaining the original name as part of the new one). The

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name of the engine author cannot be removed. However you do not need to modify it when you change the parameters.

Example: Let us assume that you are using the UCI version of Shredder under the Fritz interface. You change certain parameters of the engine. You will want this engine to appear with a different name in the list of engines. The standard name is "Shredder". You can for instance change it to "Shredder tactics monster" because that contains the original name. But you cannot change it to "Fred's chess engine" because that does not.

Installing a UCI engine

Before a UCI engine is displayed in the engine dialog (F3) it has to be installed. This is done in a few simple steps:

1. Select the option Create UCI engine in the Engine menu.

2. Next you must tell the program where the UCI engine is located. This is done by point and click in the file selector that appears. Use "Browse" and locate the UCI engine on your hard disk.

3. The name of the engine and its author are automatically given. Simply click "OK" to install the engine, which will then be displayed in the engine list.

Note that the UCI engine can be stored in any directory on any partition of your hard disk.

Modifying engines

Many UCI engines allow you to modify a number of search and evaluation parameters which influence the playing style of the engine. To change the parameters proceed as described above. In the Create UCI engine dialog click on the button Parameters.

Each UCI engine will display the parameters which can be changed, and which vary for different engines. If you change any of the parameters the input fields for "Name" and "Author" become active and can be modified, within the constraints described above.

After clicking "OK" the new engine is registered and will appear in the engine list, together with the other UCI and native chess engines.

Please note: modifying and storing an engine with a different name does not create a new copy of the engine on your hard disk. Only the modified parameters are stored under the new name and applied to the engine when this is started.

See also Engine Interface ....
See also UCI Priority ...

Load logo

You can install different logos for different UCI engines, which are then displayed in engine matches. For this it is necessary that

- the logo is in BMP format
- the size is not larger than 100 x 50 pixels
- the file name of the logo is the same as that of the engine
- it is in the same directory as the engine

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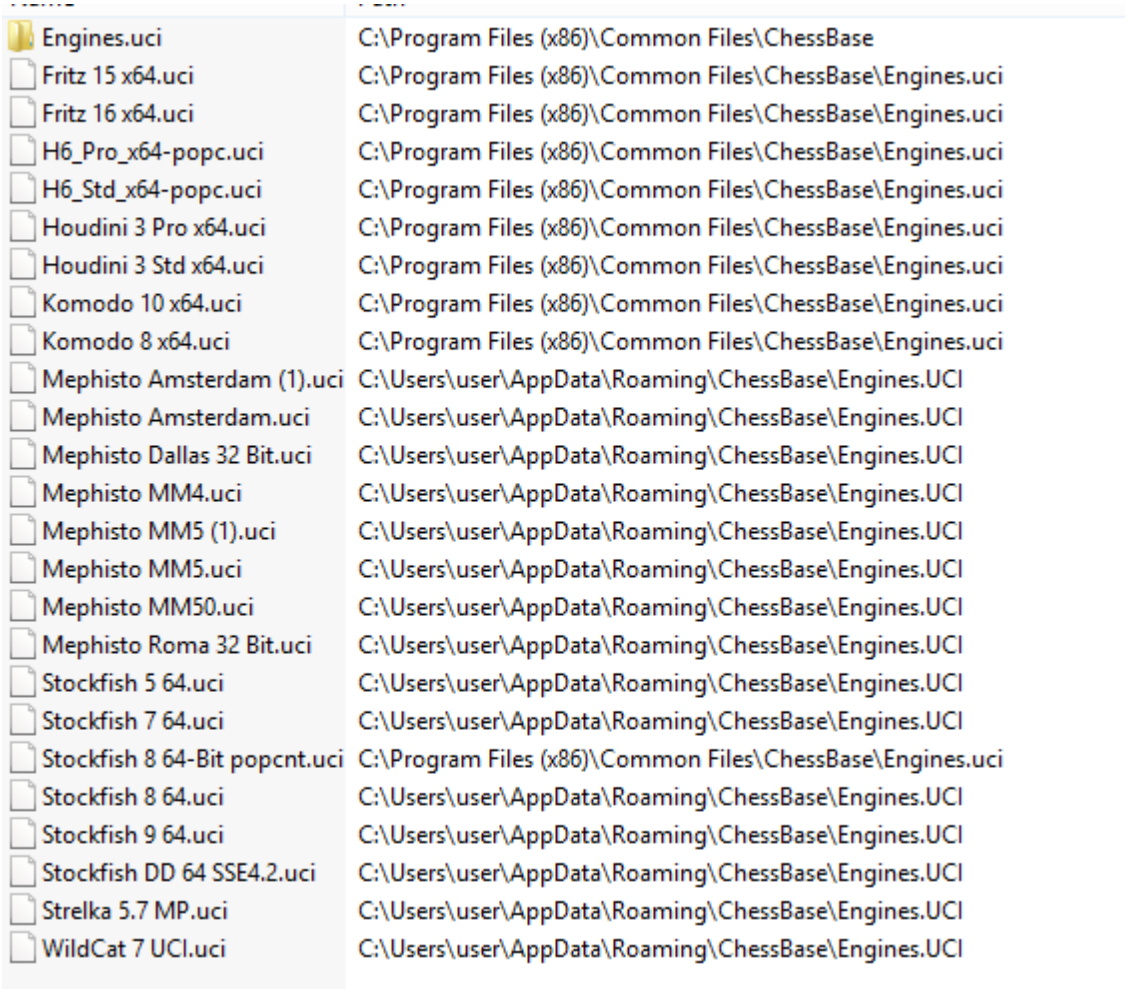
3.9.9 How to deinstall an UCI Engine?

Delete the UCI engine first and also delete in the next step the configuration file with the extension ***.uci**.

The path is displayed in the screenshot.



Engines.uci	C:\Program Files (x86)\Common Files\ChessBase
Fritz 15 x64.uci	C:\Program Files (x86)\Common Files\ChessBase\Engines.uci
Fritz 16 x64.uci	C:\Program Files (x86)\Common Files\ChessBase\Engines.uci
H6_Pro_x64-popc.uci	C:\Program Files (x86)\Common Files\ChessBase\Engines.uci
H6_Std_x64-popc.uci	C:\Program Files (x86)\Common Files\ChessBase\Engines.uci
Houdini 3 Pro x64.uci	C:\Program Files (x86)\Common Files\ChessBase\Engines.uci
Houdini 3 Std x64.uci	C:\Program Files (x86)\Common Files\ChessBase\Engines.uci
Komodo 10 x64.uci	C:\Program Files (x86)\Common Files\ChessBase\Engines.uci
Komodo 8 x64.uci	C:\Program Files (x86)\Common Files\ChessBase\Engines.uci
Mephisto Amsterdam (1).uci	C:\Users\user\AppData\Roaming\ChessBase\Engines.UCI
Mephisto Amsterdam.uci	C:\Users\user\AppData\Roaming\ChessBase\Engines.UCI
Mephisto Dallas 32 Bit.uci	C:\Users\user\AppData\Roaming\ChessBase\Engines.UCI
Mephisto MM4.uci	C:\Users\user\AppData\Roaming\ChessBase\Engines.UCI
Mephisto MM5 (1).uci	C:\Users\user\AppData\Roaming\ChessBase\Engines.UCI
Mephisto MM5.uci	C:\Users\user\AppData\Roaming\ChessBase\Engines.UCI
Mephisto MM50.uci	C:\Users\user\AppData\Roaming\ChessBase\Engines.UCI
Mephisto Roma 32 Bit.uci	C:\Users\user\AppData\Roaming\ChessBase\Engines.UCI
Stockfish 5 64.uci	C:\Users\user\AppData\Roaming\ChessBase\Engines.UCI
Stockfish 7 64.uci	C:\Users\user\AppData\Roaming\ChessBase\Engines.UCI
Stockfish 8 64-Bit popcnt.uci	C:\Program Files (x86)\Common Files\ChessBase\Engines.uci
Stockfish 8 64.uci	C:\Users\user\AppData\Roaming\ChessBase\Engines.UCI
Stockfish 9 64.uci	C:\Users\user\AppData\Roaming\ChessBase\Engines.UCI
Stockfish DD 64 SSE4.2.uci	C:\Users\user\AppData\Roaming\ChessBase\Engines.UCI
Strelka 5.7 MP.uci	C:\Users\user\AppData\Roaming\ChessBase\Engines.UCI
WildCat 7 UCI.uci	C:\Users\user\AppData\Roaming\ChessBase\Engines.UCI

3.9.10 Set UCI Priority

The program was conceived as a multi-engine chess program and allows many different chess engines to be integrated. The user interface and the chess program itself are strictly separated and communicate with one another via a standard interface. Many chess engines can be downloaded from the Internet that use the UCI protocol. UCI is a protocol that was devised by Stefan Meyer-Kahlen and stands for Universal Chess Interfacet.

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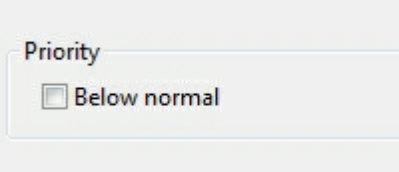
The program fully supports engines that use the UCI protocol. The menu *Engine Create UCI Engine* opens a dialog to integrate a UCI engine.
The installation is carried out via an intuitive dialog.

The program must first be told where the UCI engine has been stored on the computer. The button "Browse" opens a folder tree that can be used to select the folder which contains the engine.

After the path has been selected the fields "Name" and "Author" are automatically filled, as long as the engine contains this data. There is a button entitled "Parameters" which can be used to alter the engine's playing style.

In Fritz there is a new parameter to determine the priority of a UCI engine. What does it mean if the priority is set to lower?



This has to do with the distribution of the processor time. The communication between the user interface and the chess engine is carried out by a separate program, the Engine Interface. The Engine Interface runs with low priority to give the chess engine the maximum amout of ressources. Some UCI engines have problems with the default setting because they use too many ressources and the Engine Interface cannot receive the evaluation results and similar data. The setting "Lower priority" solves display problems that arise when certain UCI engines are used.

Even when the lower priority is set a UCI engine receives all the processor speed it needs and brings its best performance. This setting does not adversely affect the performance of a UCI engine! This is easy to test by analysing the same position with both settings. There is no change in the engine's speed, it only makes the usage smoother.

So why can the priority be lowered for the UCI engines and not for Fritz (and the other engines sold by Chessbase)? The native Chessbase engines are linked as DLL's to the user interface, which means that unlike the UCI engines they are not external processes. No external protocol is necessary, and no priority must be set.

See also Engine Interface ....

3.9.11 Hash tables

Hash tables are memory areas in which the program can store positions and evaluations while it is calculating the moves of a game. If the program encounters the same position again, it can simply take the evaluation from the hash tables, rather than analysing the position all over again.

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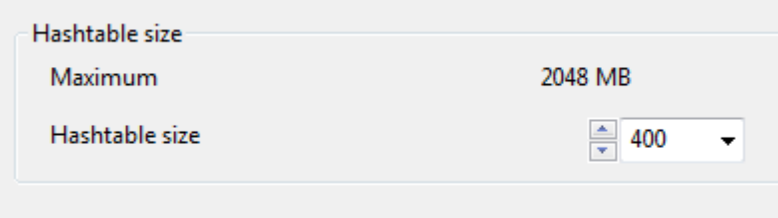

Hash tables increase the playing strength of the program considerably. This is especially true of tactically strong engines like Fritz, Houdini or Kommodo. Some run at well over 500,000 positions per second, and will fill the hash tables very quickly. After that, the search slows down. This is not the case in a slower, positionally oriented program, which processes less positions per second, and takes much longer to fill the hash tables.

For slower time controls and deep analysis the engines need large hash tables. Tournament games with an average of three minutes (180 seconds) per move would ideally require over 256 MB for the hash tables. On blitz levels 16 to 64 MB is enough.

Some engines work best with hash tables sizes that are powers of two. This means that 64 MB of hash tables is much more valuable than 63 MB. Hash table sizes are set in the "Load engine" menu.

Some technical notes

- The Windows operating system takes unused memory and uses it for internal purposes (e.g., to cache file and speed up the hard disk). If you set very large hash tables, Windows has to free the memory the first time you activate the engine. To do so, it writes the contents to the hard disk, closes files, etc. The process can sometimes take a while, and during that time the hard disk will run constantly.

- After the memory required for the hash tables is free the hard disk should show no more activity (except for short seeks in the openings). This applies to subsequent games as well.

- If there is constant disk activity during the game, then the hash tables you have set are too large. Windows has installed part of the tables on your hard disk, which slows the program down drastically. You will notice that the search depth remains very low.

- If there is no disk activity at all when you first start an engine, this generally means that you have been too timid with the hash tables size. You may want to increase the size to get optimum playing strength.

- If you are playing an important tournament game with large hash tables, you should start the engine once to force Windows to release the required memory. Press Alt-F2 to start the engine, and Alt-F2 again to stop it when everything is quiet.

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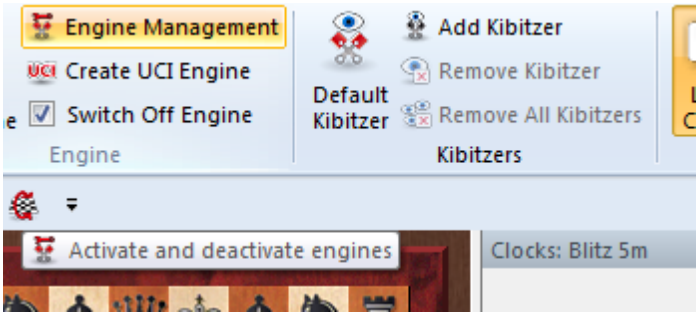
3.9.12 Clearing hashtables

In the Load engine window the button "*Clear hashtable*" does not work. I unfortunately have no idea how to check whether after clicking on the button more RAM is available. I remember that the button worked in previous versions. How can I empty my memory without having to switch the computer OFF and then ON again?

This function does not clear any memory. The content of the hashtable is deleted. That happens before the next search. The program does not give any feedback on this. Of course this only makes sense – if at all – with engines which have already been loaded. The function is only present for historical reasons. It was a function aiming at reproducible search results. With present day engines which work with several CPUs, it is relatively unlikely that the same results will continually be displayed.

3.9.13 Engine management

Engine Engine management



One of the great strengths of the ChessBase programs is that there is a strict separation between the interface, which provides the graphics and functionality, and the chess engines, which calculate the moves. This makes it possible to provide many interesting chess engines by talented programmers all over the world. The authors themselves do not have to bother about the interface, they can concentrate fully on improving the intelligence of their engines.

If you have collected a large number of engines, the list from which to choose becomes long and unwieldy. The function Engine management helps you "archive" engines and activate them only when they are needed.

- **Active engines:** these are the ones that will be visible when you load an engine.
- **Inactive engines**: are those that are parked away for later use.
- The buttons **>>** and **<<** are used to move engines from one window to the other.

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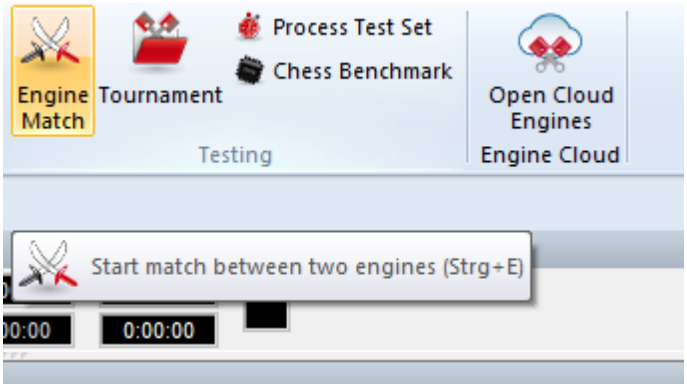
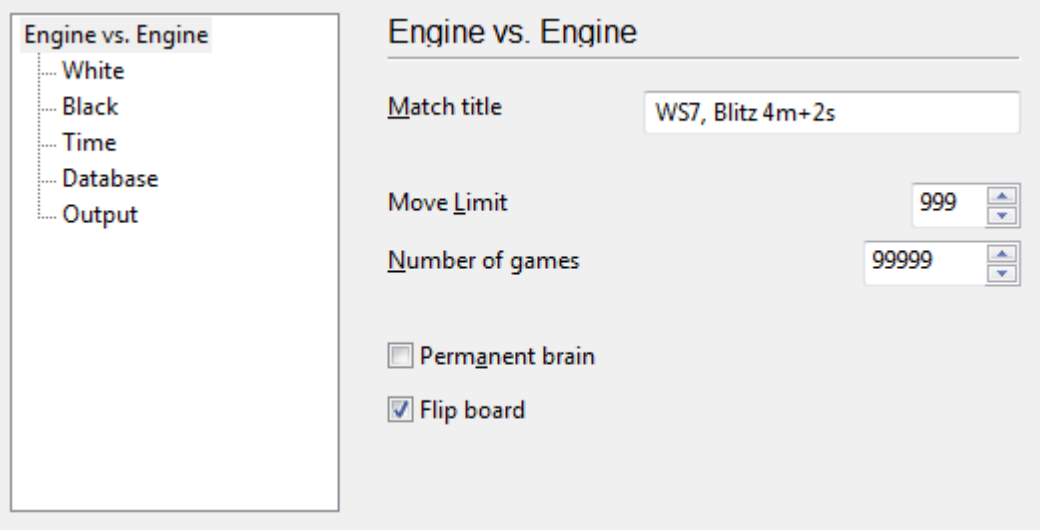
3.9.14 Engine matches

Engine Engine match



This allows you to stage automatic engine matches between two computer opponents. You can also play an engine against itself, that is, to test the quality of different openings books. In the engine dialog box you can specify which engines should play, which books they should use, time limits, number of games, etc.



- **Match title:** This is the title that will appear in the tournament column of the games list.

- **Define:** These two buttons allow you to select and configure the engines. You can set the hash table size, the use of endgame tablebases, the openings book and possibly the engine parameters. You can give an Elo rating for the engine. The left engine has white in the first game.

- **Blitz/long/fixed:** You can stage engine blitz matches, or play the games at tournament time controls. It is also interesting to set a fixed depth which can be set to different values for each engine.

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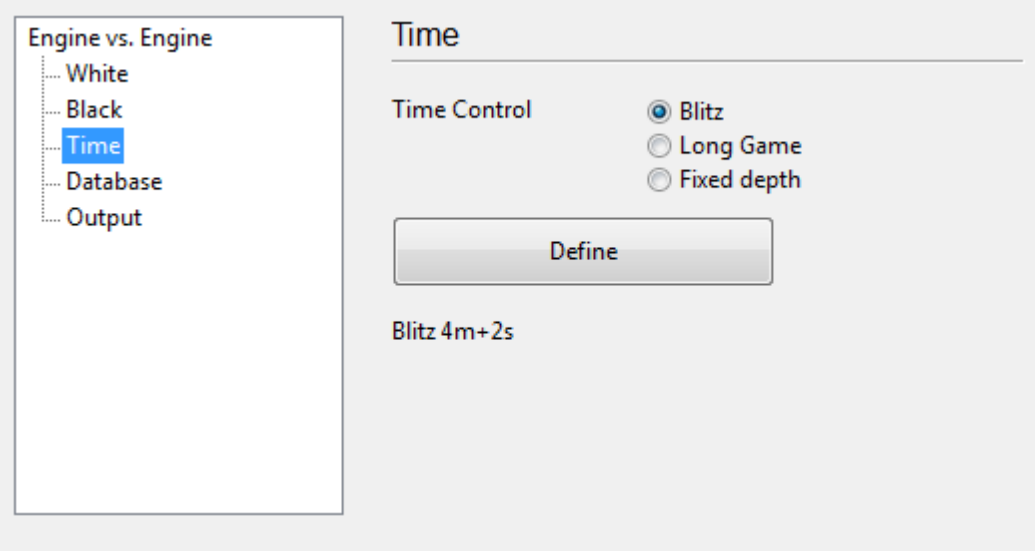

- **Number of games**: You can specify how many games should be played.

- **Move limit:** This limits the length of individual games. The number gives the number of ply (half-moves) after leaving the openings book. In the database, the games are stored without a result, but with an evaluation symbol.

Tip: If you want to check an openings book, set the move limit to "1". The program will go to the ends of different lines, calculate one move and save them with an evaluation symbol.

- **Permanent brain:** You can specify whether the engines should continue working while the opponent is thinking. This, however, means that each engine will be using 50% of the processing power.

- **Openings DB**: This is a special feature which allows you to select a database of games. The engines load each game, jump to the end and play on from there. This function allows you to stage "theme tournaments" and also conduct interesting experiments, like the "Nunn match", in which each side must play ten representative openings positions with black and with white. These positions are included on your program CD (Nunn.cbf) and were selected by Grandmaster John Nunn. They have become the standard for testing chess engines without the influence of the openings book.

First game: If you use an openings database, you can specify which position the match should start from. and one with black. If both programs are using the same openings book, or if you are using an openings database like the Nunn match, each engine will play the same opening with white, and then with black.

Information during the match

While an engine match is running there is a lot of information available to keep you briefed on its progress. These are to be found at the top of the screen.

- On the top left you see the names of the two engines.

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- The "X" button allows you to stop the match.

- Click the middle button when you want to "adjudicate" a game. This is useful when one side is clearly winning but the game will drag on for many hours before it is decided.

- The third button will generate a tournament table, giving you an overview of the engine match so far.

On the top of the screen there is more information: You can see names of the programs, the current score, number of draws, and the result in percentage. You can also see the tournament performance in Elo, with the standard deviation in square brackets, and the certainty (in percent) that the performance lies within this margin of error.

Where the games are stored
A special engine-engine database is used to store all games from engine matches. It is by default, the database c:\My Documents\[User]\ChessBase\CompBase (unless you have specified otherwise during the installation).

The engine-engine database is called "EngMatch" and is always present in the history list at the top of the database window.

3.9.15 The Nunn Match

The use of an opening database in an engine vs engine match has some interesting applications. For instance, you can start a theme tournament to test the quality of your favourite openings system, store various lines in the database and then have the program play them out against itself. Or, you can store a series of games or positions you want to analyse in a database and start the program working on them. It can also be used to conduct the well-known “Nunn test”.

GM John Nunn has selected a series of ten openings to test engine strength. The opening database required to conduct the match is to be found on your program CD, and is automatically installed on your hard disk (in the directory \testsets). If you start a match between two engines using this “Opening DB” and “Alternate colours”, you will get 20 games which give you a very good idea of the pure playing strength of the engines.

There are a number of reasons for this kind of experimental match, which eliminates the use of traditional openings books:

- With the amount of effort going into the production of optimised openings books, and with the advent of learning books, the measurement of the playing strength of the chess engine itself has been pushed into the background. A large number of computer vs computer games are decided by the openings book.

- It is possible to improve the results of one program against a competitor by simply “booking” the opponent (i.e., including lines in the books that are aimed at a specific program). Such “killer openings” appear repeatedly on the boards of testers and drastically improve the score of a program, without need for improvement in the playing strength of its engine.

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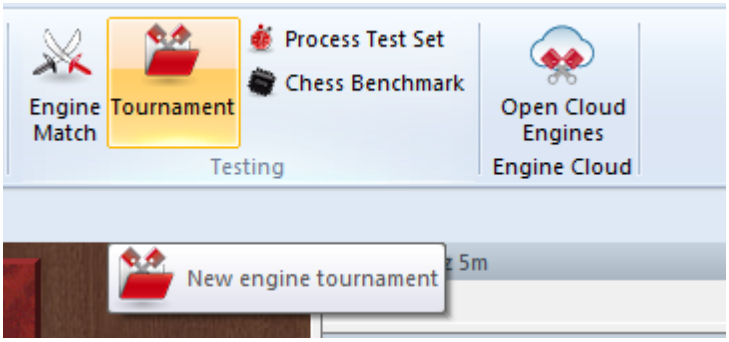
▸ It is important to define a fixed set of games that should be played in a test, rather than to use a random set of games, where there is a danger of selective reporting. A Nunn match is only valid if exactly twenty games are submitted. It is entirely reproducible and transparent to everyone. This is even more true if the precise hardware configuration is known, and the thinking times and evaluation of each move recorded, which the program does automatically.

3.9.16 Engine tournaments (with humans)

Menu Engine Tournament

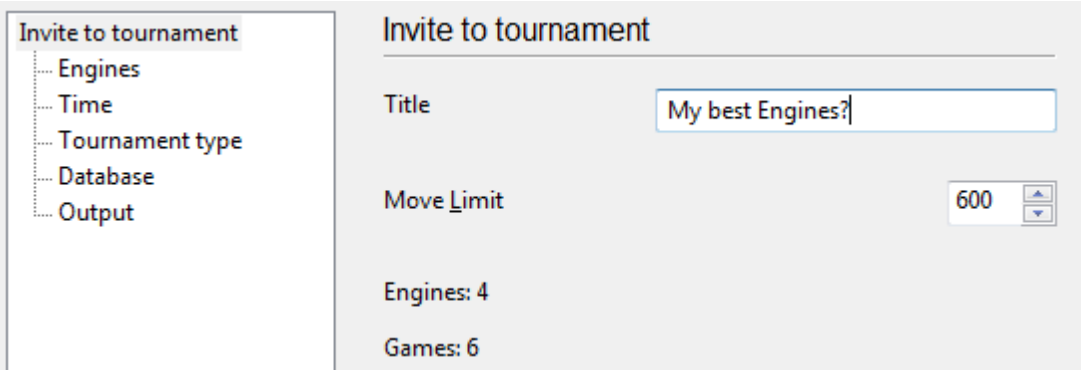


Matches between two engines have a disadvantage: program A might win easily against program B but have problems against program C, even though program C can beat program B. This is less probable among human players. To accurately measure a program's strength it has to play against a wide variety of opponents. The easiest way to do this is round robin tournaments.

The program does this automatically. You invite engines to a tournament with their opening books, specify a time control and leave the program to itself. If you need to use the computer in the meantime you can interrupt the tournament and resume it later.

You can use the menu *Engine Tournament* to invite engines to an engine tournament.

You must choose the name of a tournament (with the extension **.cbtourn**) which will contain the data of the engines that are participating.



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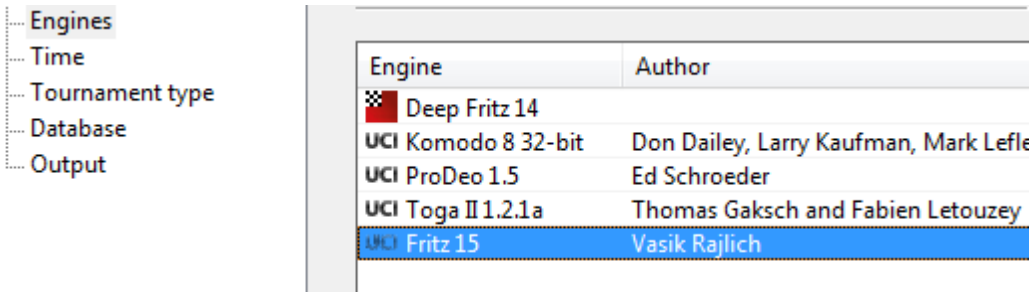
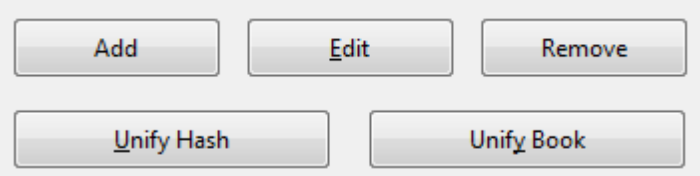
Title: The text that you input is saved in the games as the "Tournament".

Dialog Engines

You can choose from the engines installed on your system. For each engine, you can select an openings book, set the book and engine options, hash table size, etc.

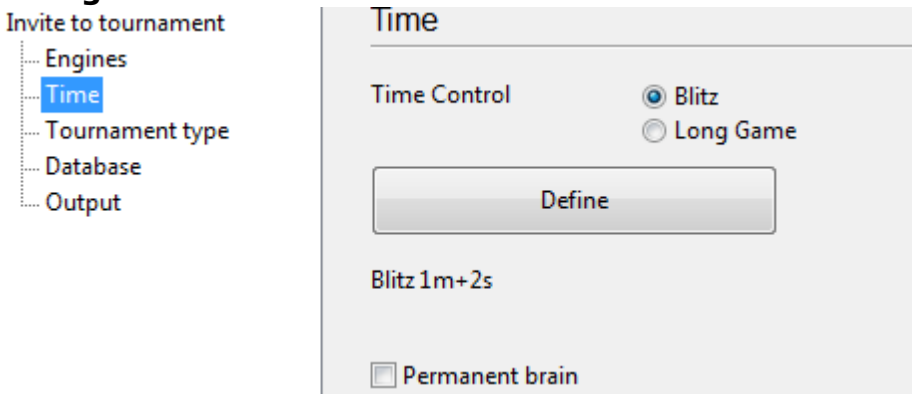


Unify Book: All the engines are to play with the same openings book.



Unify Hash: All the engines should have the same size hash tables.

Dialog Time



Blitz: The tournament is carried out with blitz games.
Long game: The tournament is carried out with games that use classical time controls.

Permanent Brain: Use opponent's time: The engines are allowed to think while it is the opponent's turn. This uses 50% of the processor time.

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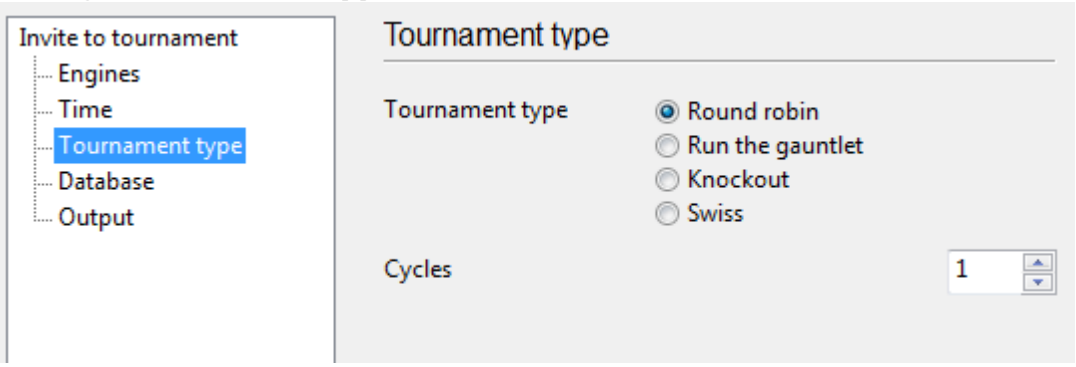
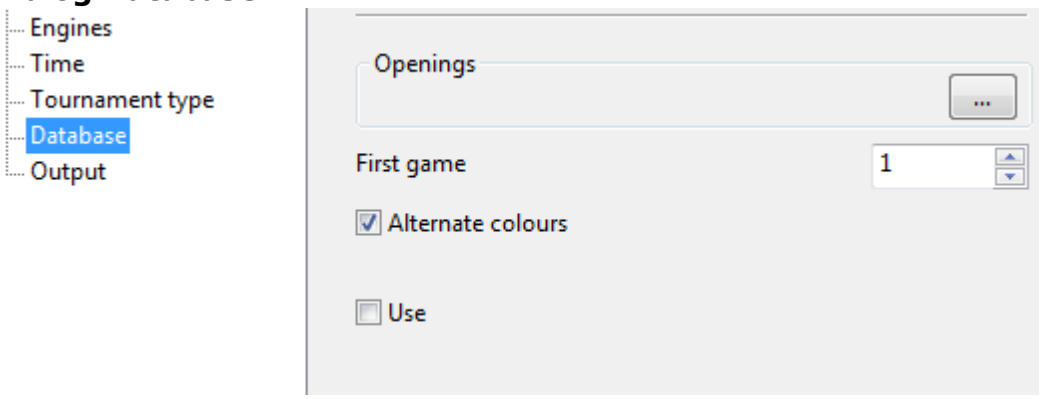
Dialog Tournament Type



- **Cycles**: This specifies how many games each player should play against each opponent. This is the number of rounds in the Swiss system.
- **Round robin:** Every engine plays as many games against each opponent as are specified by the cycles.
- **Run the gauntlet**: The first engine in the list plays as many games against each opponent as are specified by the cycles. This is useful for testing individual engines.
- **Knockout**: Engines play against each other in pairs. The winner advances to the next round.
- **Swiss System**: In each round engines with approximately the same point score play against one another. After a few rounds the strongest engines are playing one another and the weakest engines are playing against one another. As many rounds are played as there are cycles.

Dialog Database



"Database" specifies which database should be used for the selection of openings. "*Alternate colours*" changes the colours for every game.

Dialog Output

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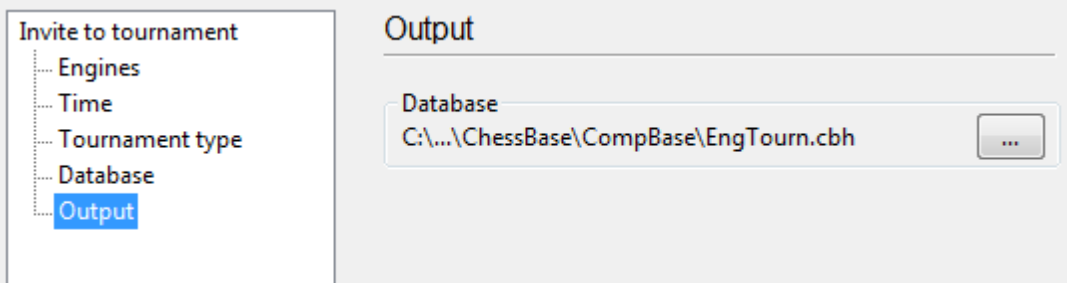
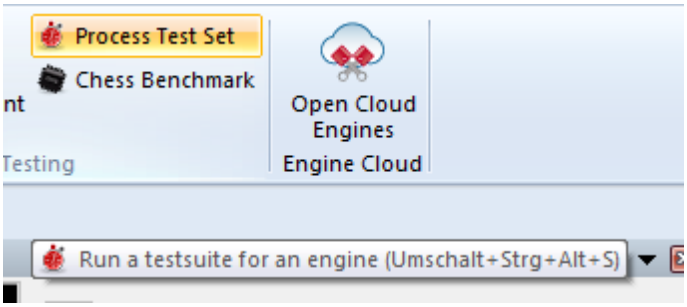


"*Output*" specifies the database in which the games of the engine tournament are to be stored.

Tournament database
The program saves all engine tournaments automatically in a tournament database. You will find this in the directory c:\My documents\ChessBase\CompBase\EngTourn, unless specified otherwise during the installation of the program. The tournament database is always shown in the history list of the database window.

3.9.17 Process test set

Engine Process test set



Solving a series of test positions is an objective way of evaluating the strength of an engine. But, it is a tedious task to enter each of the positions, start the engine, and then protocol the solution times.

You can run a whole database of test positions automatically. The solution times and values are automatically recorded together with the moves. Even the engine name is noted behind the first move of the solution.

After installing the program, you will find a test set of 200 difficult tactical positions for you to experiment with. It is in the directory ChessBase\Testsets. This is how to run a test set:

- Switch to the database window and open a database of test positions. The database should only contain positions, and no games. Each position should have the first move of the solution. If there are two solutions, then the alternative move should be given as a variation.

- In the board window, click *Analysis Process test set*.

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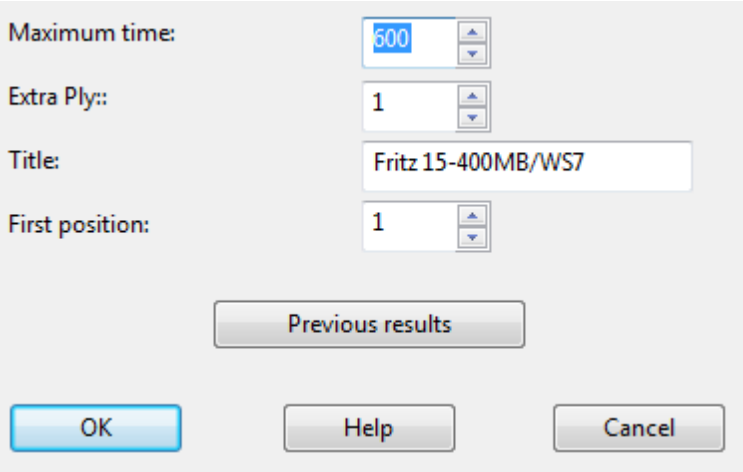
The following dialog box appears:



Maximum time: Defines the maximum length of time the program should work on each position.

Extra ply: When the engine finds the solution, then it should not stop immediately. The correct move may have come up by chance. The program should at least finish calculating the current ply depth. This corresponds to the setting Extra ply = 1. If you want to be sure, you can make the program go one or two plies deeper. This may, however, greatly extend the processing time.

First position: Allows you to specify from which position the program should start. Thus, if you have interrupted a session, you can easily continue at a later time.

Previous results: The program keeps a record of the results achieved by each engine that has run the test. It displays these in a sorted list. This contains the following results:

- The number of positions solved in the allocated maximum time per position.
- The average solution time of all the positions that were solved.
- The average solution time of all the positions (including those not solved).

This last value, which of course is influenced by the maximum time set, is the most illuminating. While the program is working you see the current results (how many positions solved, percentage, average time) in the area just below the status bar at the top of the board window.
In the displayed ranking list (click "Previous results"), you can delete the results of individual engines, or all results. You can clip the results (i.e., copy them into the clipboard and insert them in a spreadsheet program).

The unsolved positions are marked in the database with "medals". Positions that were not solved in the current test run are marked with black medals for **"Tactical blunders"**. Those not solved by any program, get the "User" medal (blue-green). You can see the medals in the database list and search for them with the search mask. This is the best way to get a list of unsolved positions. To load one position after another, switch to the board window and press F10.

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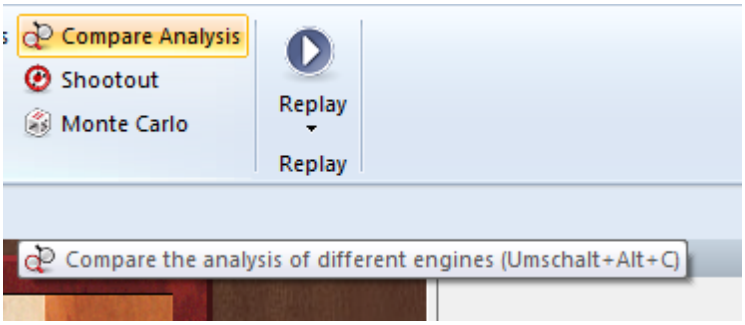
Note: You can define a position as solved if one or more moves are not played. This is done by annotating them with a "?". For instance if the notation says 1.Ne5? (1.Ng5?) then the position is solved when neither of these moves is in the main line.

3.9.18 Compare analysis

Analysis Compare analysis



The automatic comparison of the analysis of two different engines has two main uses. First, it is an excellent way of evaluating the strengths and weaknesses of the engines. On the other hand, from a chess point of view, it is very interesting to compare the conclusions of two different engines. One might be tactically more reliable, the other more positionally sound.

It is also interesting to compare two versions of the same engine. The "compare analysis" function allows you to check what each finds at a specific search depth, or how many position nodes each of these engines actually checks to reach a certain search depth.

You can set a variation colour for each engine (when loading it) so that it is easy to tell at a glance which engine produced the individual lines.

How to load engines:

- **New** allows you to select engines from the list of all available engines.

- **Edit** allows you to change the settings for the engines already loaded (hash table size, variation colour).

You can use "compare analysis" on a number of games (in the database window). In this case, specify whether the analysed games should replace the original entries or if they should be appended to the end of the database.

Please note: You can load an engine more than one at a time and then use Edit – Parameters to set different engine parameters. In this way you can find out how the settings affect the performance of the engine.

3.9.19 Permanent brain

Permanent Brain is the term used to denote the program thinking on the opponent's time.

After it has executed a move, the program tries to guess what the opponent will play,

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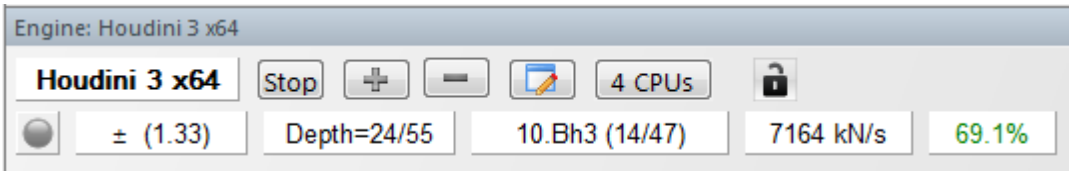
and starts calculating a reply to that. If it has guessed right, it will play its reply quickly - sometimes immediately. The program shows the move it is expecting in the engine window.



In engine tournaments, if two engines are playing against each other, using permanent brain slows down the side that is computing the next move (because it has to share resources with the other side's permanent brain).

3.9.20 Expected move

After the program has executed a move, it already expects the opponent to make a certain reply. In fact, it continues to calculate on the opponent's time, under the assumption that this move will be played. If the opponent actually plays it, the program can execute its next move much more quickly – sometimes instantaneously.

You can see what the program expects you to play in the engine window:

The expected move (Ne7) is displayed in the engine window.

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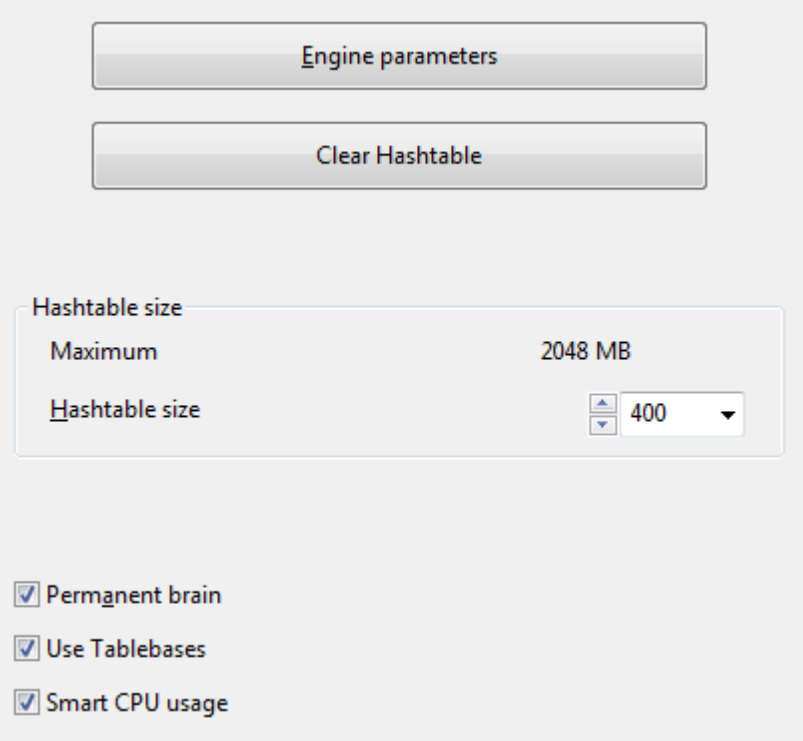
3.9.21 Engine parameters

Menu: Engine Change Main Engine - Advanced Engine parameters



Many of the engines available have special parameters you can set. To do so, click the button "Engine parameters" in the engine window.

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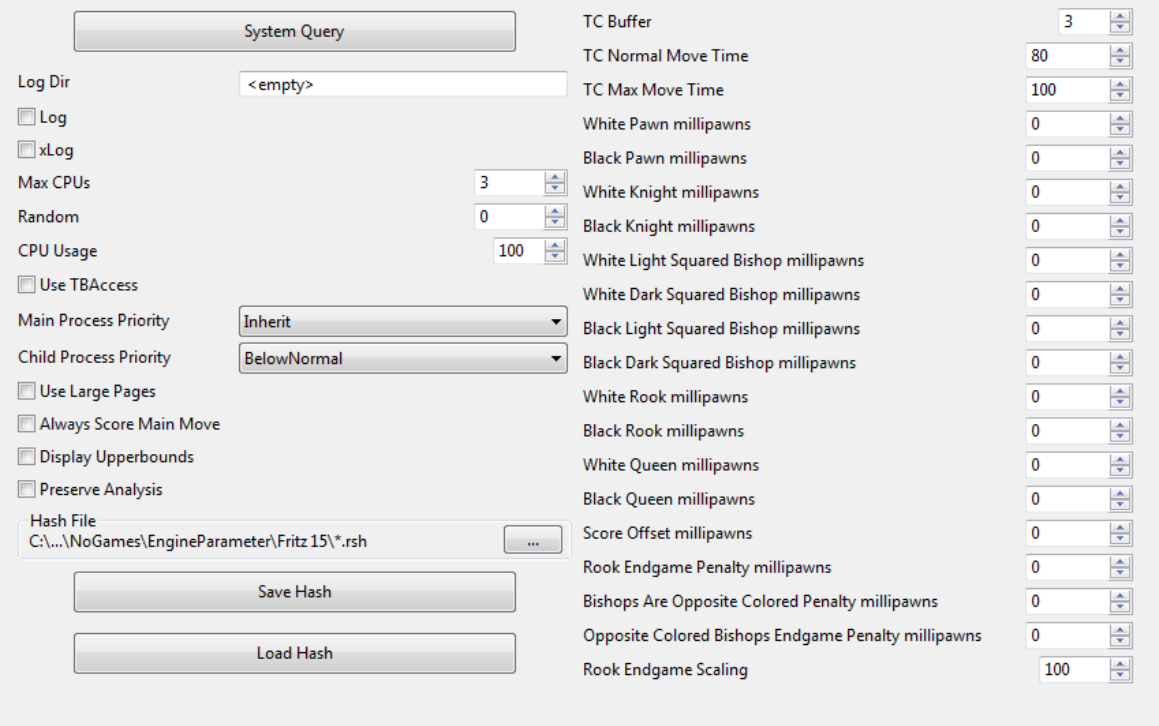

Now, you can change the settings that affect the playing style of the engine. Each engine will present the parameters that are relevant to its algorithms.

Here are examples of the parameters you can set in most engines to influence their playing style. You will often be able to achieve a higher performance in specific situations (e.g., playing very fast games, solving tactical positions or studies). Different parameters may be available in different engines, not all of the ones given below may appear in your default.

Note: The default configuration of the engine has been carefully tested. It is possible that in some circumstances other settings lead to better results, but for the best overall performance and strongest play it is recommened that you leave the default settings unchanged.

Engine Parameters of the Engine

You can modify the parameters of the engine. When you load an engine with the function key F3 you should select the engine that you want to load.

There is a button entitled "Engine Parameters" which opens a dialog with some options:

Log - Write stuff (like, communication with the GUI) to a file.

xLog - Write stuff to a HTML file (seems to only work for Opera Browser...)

Max CPU - The number of cores that Rybka will use, if this number is higher than your cores, Rybka will use them all.

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CPU usage - In case you want to use less than one core, set it in this parameter.

Main Process Priority / Child Process Priority: Changes the engine priority without needing to visit the Task Manager. For instance:

Inherit should be to start the main process at the same priority of the GUI.

NalimovUsage - Same as in Rybka 3 (affects how much she is slowed by tablebases, default should be best).

Use Large Pages - After you set "lock pages in memory" in the OS, expect some 15% speed up if you give her 1GB Hash (or more, less hash should also give benefits but not as dramatic - only lasts until you unload the engine, then you'll probably have to reboot the computer for this to take effect again).

Always Score Main Move - With this OFF Rybka would move into looking for alternative moves in fail lows, with ON she will first give the move a score. Recommended to set it ON for analysis, OFF for games.

Display Upperbounds - With this OFF Rybka would not tell the user when a fail move happened, so if you were away from the computer you wouldn't have a way to know. Recommended to set it ON for interactive analysis, OFF for games.

Preserve analysis - Same as R3 (Engine keeps old contents on the hash for much longer, slows her down the more positions analyzed. I chose to keep it OFF).

Clear Hash - Allows Rybka to get a fresh look at the position.

Hash File / Save Hash / Load Hash - Used for when you are going to unload the engine or reboot, so Rybka keeps the hash contents on reload (I never use this).

MultiPV_cp - Same as R3 (Controls how worse than best the moves have to be to appear on MultiPV, e.g. a value of 0 only would show moves that are exactly as good as the best move).

TCBuffer - How many seconds Rybka thinks she has subtracted from the clock. Useful for bullet (1 '0) and blitz games (3 '0) so Rybka avoids losing on time (by time stolen by the GUI or the opposing engine, like clones), and also may give a general better time management when set at 3 (setting does nothing on incremental or repeating time controls.)

TCNormal Move Time - The rate at which Rybka should play the game. Lower values will make the engine play faster, and vice versa.

TC Max Move Time - The amount of time Rybka is willing to spend in critical positions (higher values will make her think longer on such cases).

These last 3 settings are extremely sensitive to hardware, time control and even, opponent, so to see Rybka 4 shine on games, you'll probably need to experiment a lot to find the optimal settings, but the gains can be significant.

[Pieces cp] - The offset of the pieces in centipawns. Please note that the behavior is

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different on analysis than of games. On analysis "White" and "Black" are taken literally, so that when you analyze from the other side you get the same evaluation. On games White means "Me" and black means "The opponent", so by setting the values you are really setting how Rybka should evaluate her pieces and the opponent's, regardless of what side she's playing on.

Rook Endgame Scaling: If you see Rybka playing too much into dead drawn endgames with a rook and an extra pawn, try lowering this value. Useful for analysis of such positions, as well.

xLog - Write stuff to a HTML file (seems to only work for Opera Browser...)

Main Process Priority / Child Process Priority: Changes the engine priority without needing to visit the Task Manager. For instance:

Inherit should be to start the main process at the same priority of the GUI.

NalimovUsage - affects how much she is slowed by tablebases, default should be best.

Use Large Pages - After you set "lock pages in memory" in the OS, expect some 15% speed up if you give her 1GB Hash (or more, less hash should also give benefits but not as dramatic - only lasts until you unload the engine, then you'll probably have to reboot the computer for this to take effect again).

Always Score Main Move - With this OFF Rybka would move into looking for alternative moves in fail lows, with ON she will first give the move a score. Recommended to set it ON for analysis, OFF for games.

Display Upperbounds - With this OFF Rybka would not tell the user when a fail move happened, so if you were away from the computer you wouldn't have a way to know. Recommended to set it ON for interactive analysis, OFF for games.

Save: This saves the engine modifications. This opens a dialog to select the filename for the stored parameters. The extension of the configuration file is *.param.

Load: This opens a dialog to load previously stored engine parameters. The parameter files can be found in the folder Engine Parameter.

Defaults: This button restores the engine’s factory settings.

Tip: You can set up engine-engine matches or engine tournaments to test your modifications against other engines.
Save stores the new parameters for the engine. Restore deletes the changes you have just made. Defaults switches back to the normal parameters.

Please note: The default parameters are the one the programmers consider the strongest for general play.

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3.9.22 End Game Table Base support

The Program integrates the Syzygy table probing code © Ronald de Man, the Gaviota EGTB probing code © Miguel A. Ballicora and the Nalimov EGTB probing code © Eugene Nalimov.

Syzygy bases

The Syzygy 6-men EGTB system is the recommended table base solution for Houdini.

It features by far the best compression (smallest file size) and best performance, especially when multiple threads perform simultaneous EGTB probing. Houdini has been extensively tuned for this state-of-the-art end game table base system so as to provide optimum precision and strength in the late endgame at any time control and with any number of cores. While installing the files on a SSD disk is recommended, the performance of the Syzygy on a normal hard disk is still very good.

The only drawback of Syzygy bases is that they do not contain the exact Distance to Mate information. If you require an exact mating distance in a position you'll need an alternative solution.

The Syzygy 6-men EGTB system is the recommended table base solution for Houdini.

For the Syzygy EGTB support you'll need to install the Syzygy EGTB files. At the time of writing all the Syzygy files are available for torrent download at http://oics.olympuschess.com/tracker/index.php. The 3-4-5-men Syzygy are also available for direct download at http://olympuschess.com/egtb/sbases.

The total size of the 3-4-5-men files is 938 MB (290 files), the 6-men table bases require 149 GB (730 files).

Nalimov EGTB

For the Nalimov EGTB support you'll need to install the Nalimov EGTB files.

Question: I don't understand the concept of setting a depth for EGTB probing. Why wouldn't all positions that have 3-4-5 pieces probe the table bases to get the evaluation?

EGTB probes are extremely slow compared to a normal evaluation by the engine. Suppose you have a K+Q+P against K+N ending. Even without consulting the table bases Houdini knows that this ending is easily won for the K+Q+P side. Consulting the EGTB for this position would reduce Houdini's playing strength, as it could easily have evaluated 1,000 other positions instead of making the rather useless EGTB probe.

Even the in-memory "soft" Gaviota or Scorpio probes are sometimes relatively slow compared to a native evaluation of the position - especially when multiple threads are running. If two threads simultaneously perform a soft probe, the second thread has to wait for the first to finish its probe.

This is aggravated by the fact that Houdini contains a lot of end game knowledge in its native evaluation function - a lot more than most other chess engines. For example, even in a non-obvious ending like KBP v KB with bishops of the same color,

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Houdini knows quite well which positions are won and which are drawn. This means that except for difficult-to-evaluate endings like KQP v KQ the 5-men EGTB do not really increase Houdini's playing strength.

To handle this situation in an intelligent way, Houdini will vary the frequency at which the EGTB are probed depending on the actual end game that is occurring. In difficult-to-evaluate endings Houdini will probe the EGTB files much earlier than in endings that are easy to evaluate.

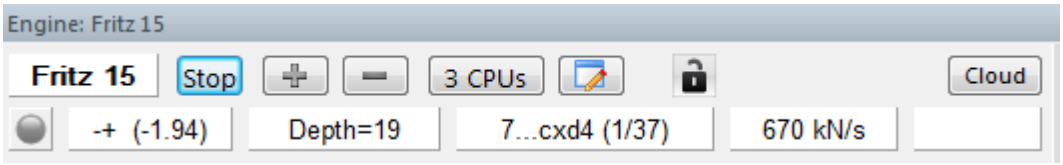
The frequency of the probing is further influenced by the following parameters:

· Hard Probe Depth is the earliest search depth at which the EGTB probing will result in a disk access. You can reduce this value if the table base files are installed on a very fast disk, or if you are running less than 4 threads.

· Soft Probe Depth is the earliest search depth for EGTB probing that uses only the memory cache. You can reduce this value if you are running less than 4 threads.

3.9.23 Extended Options in the Engine Window

In the engine window the user now sees a new display of the number of processors used. This display is only relevant for computer systems with several processors and programs that are able to use more than one processor.



Clicking the CPU button in the engine window allows the user to change the number of processors being used.

3.9.24 Endgame databases

Many chess programs can play all important major piece endings with four and five men on the board perfectly. This is to be taken literally.
They contain full information on every legal position that is possible in these endings. At any stage, the program knows whether the position is won, lost or drawn, and how many moves it takes to win or lose (assuming perfect play by both sides).

End Game Table Base support

Houdini integrates the Syzygy table probing code © Ronald de Man, the Gaviota EGTB probing code © Miguel A. Ballicora and the Nalimov EGTB probing code © Eugene Nalimov.

The Syzygy 6-men EGTB system is the recommended table base solution for Houdini. It features by far the best compression (smallest file size) and best performance,

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especially when multiple threads perform simultaneous EGTB probing. Houdini has been extensively tuned for this state-of-the-art end game table base system so as to provide optimum precision and strength in the late endgame at any time control and with any number of cores. While installing the files on a SSD disk is recommended, the performance of the Syzygy on a normal hard disk is still very good.

The only drawback of Syzygy bases is that they do not contain the exact Distance to Mate information. If you require an exact mating distance in a position you'll need an alternative solution.

Syzygy EGTB

For the Syzygy EGTB support you'll need to install the Syzygy EGTB files. At the time of writing all the Syzygy files are available for torrent download at http://oics.olympuschess.com/tracker/index.php. The 3-4-5-men Syzygy are also available for direct download at http://olympuschess.com/egtb/sbases.

The total size of the 3-4-5-men files is 938 MB (290 files), the 6-men table bases require 149 GB (730 files).

The location of the Syzygy EGTB files is specified in the SyzygyPath option.

Nalimov EGTB

For the Nalimov EGTB support you'll need to install the Nalimov EGTB files. At the time of writing they are available for download at the address ftp://ftp.cis.uab.edu/pub/hyatt/TB or http://tablebase.sesse.net. Download the files and save them in a directory on your hard disk. The total disk space required for the 3-4-5-men table bases is about 7 GB (290 files). The space requirement for the 6-men Nalimov table bases exceeds 1 TB.

The location of the Nalimov EGTB files is specified in the NalimovPath option.

The endgame databases in the Nalimov format and are know as "Tablebases".

Eugene Nalimov from Novosibirsk (currently in Redmond) wrote the powerful algorithms to generate the endgame tablebases.

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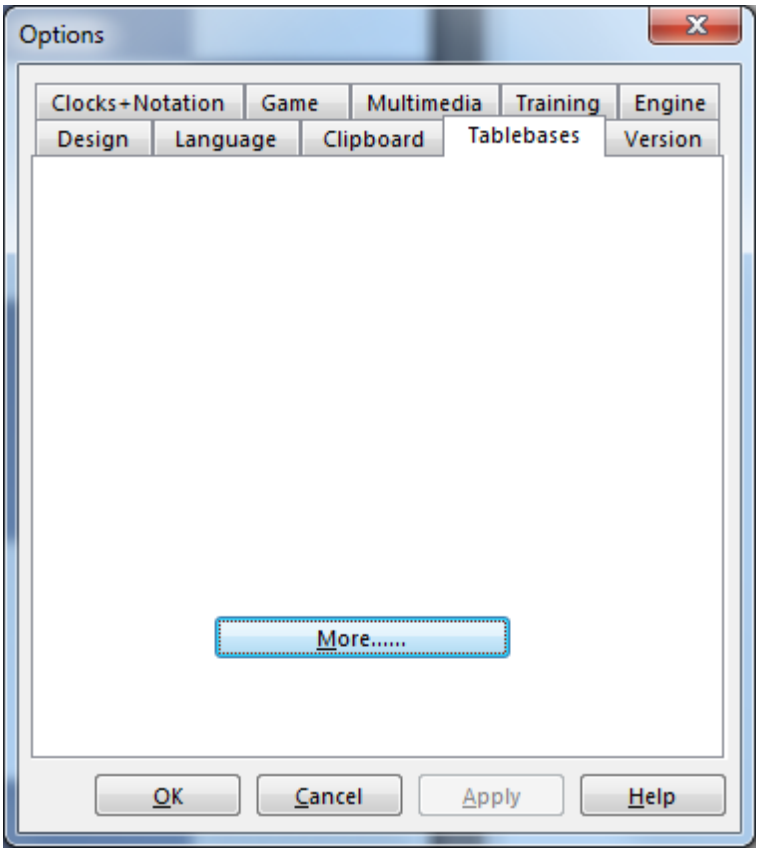
Options Tablebases

Accessing the endgame databases (Nalimov tablebases) from a hard disk is much faster than from the CD. It is advisable to install them onto your hard disk, if you have enough space.

Create a directory (e.g., e:\cbdata\tbs) on your hard disk and copy the content of the directory \TBS from the program CD into the new directory. Then set the path in the "Options" dialog box:



Click More.

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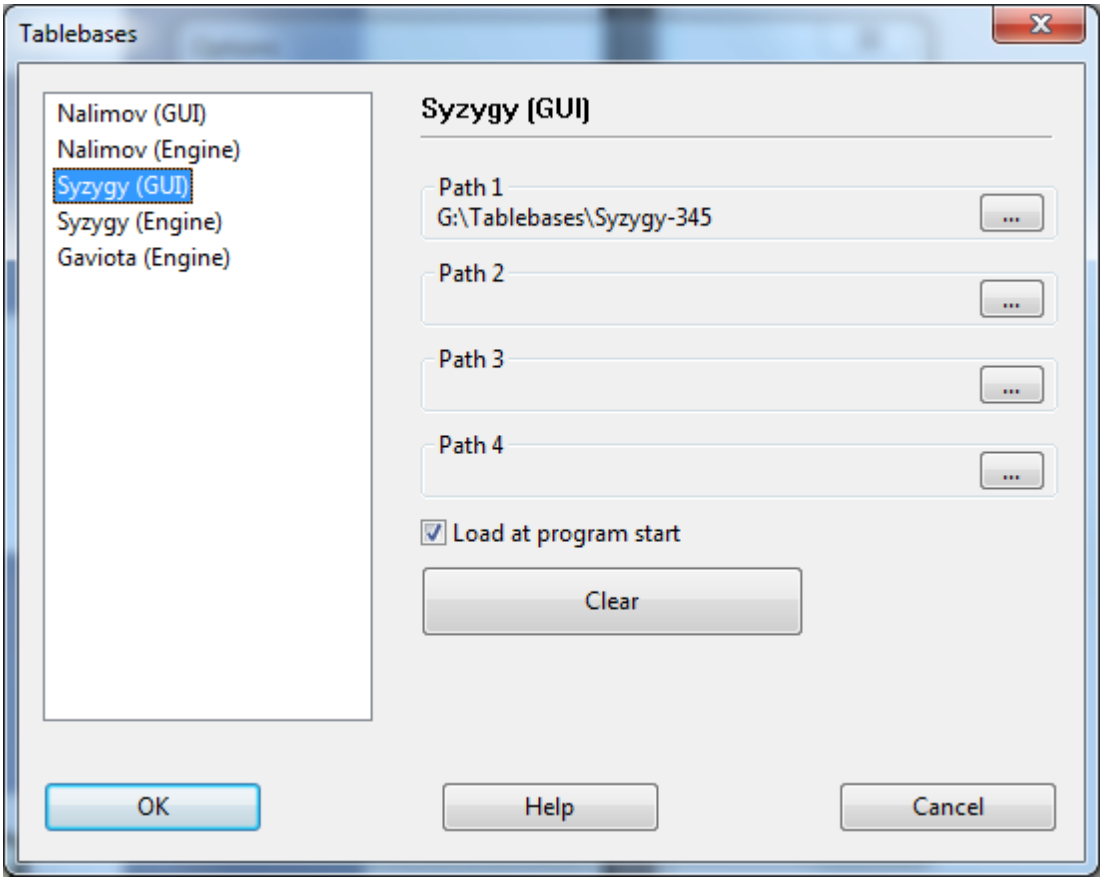

Select the prefered Format and set the path.

Note that you can put the tablebase files into different directories, partitions or even different hard disks on your computer. Use the "Browse" button to locate the directories.

The cache memory is used to speed up access to the tablebases during a game. A value between one and eight MB is advisable.

Access to the tablebases improves the playing strength of the program in the endgame considerably. Whenever it hits on one of the five-piece endings in the search, it can stop and get a completely accurate assessment of the position from the tablebases. It does not have to generate thousands of follow-up positions. But, accessing the tablebases is quite slow (in comparison to the move generation and evaluation). You can speed things up by copying the tablebases onto your hard disk.

Use the endgame database to practice the endings or to study difficult positions. Not even the greatest experts in the world can give you more reliable analytical help.

Endgame Turbo

ChessBase has a product, the Endgame Turbo, which consists of five DVDs filled with Nalimov Tablebases.

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With the help of the Endgame Turbo, all five and a number of six-piece endgames will be played with absolute perfection. Since the positions are also indentified in the search the program played the entire endgame, including positions with more than six pieces on the board, much more accurately.

See also End Game Table Base support ....

Gaviota Endgame Databases

For the Gaviota EGTB support you'll need to download the Gaviota EGTB files. At the time of writing they are available for download at the address http://www.olympuschess.com/egtb/gaviota.Download all 145 files and save them in a directory on your hard disk. The total disk space required is about 7 GB.

The location of the Gaviota EGTB files is specified in the TbPath option.

Houdini will scan the folder for the "kqkr.gtb.cpX" file and accordingly decide which compression level to use.

3.9.25 Syzygy EGTB

The program supports a relatively new endgame database format, the *Syzygy Endgame Tablebases*. The new format was designed by Ronald de Man from Holland. Most new chess engines already support this format.

You can activate the Syzygy Endgame Tablebases in the program settings, in the menu ***File Options TableBases More***.

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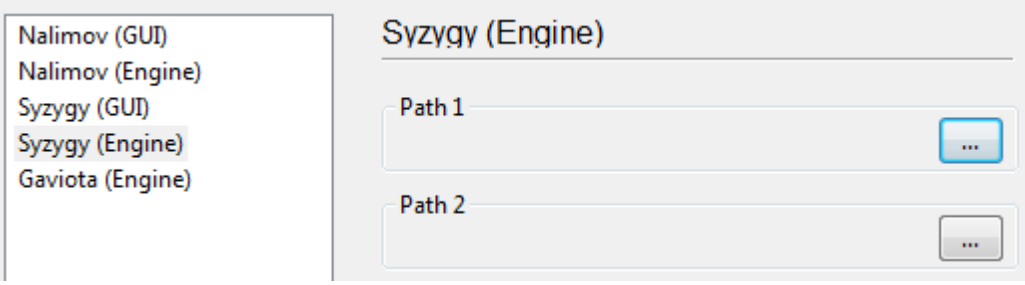
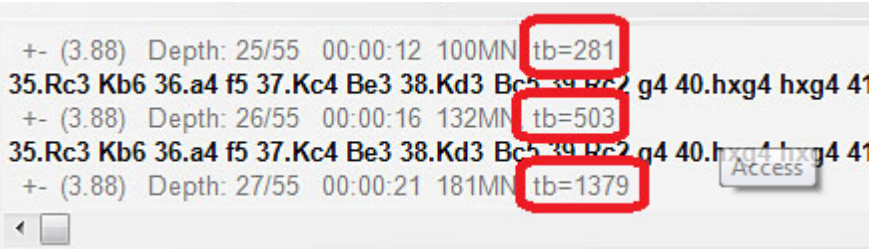


Enter the path of the folder where the Syzygy tablebases are stored in the "*GUI*" and "*Engine*" tabs. Clicking on the button with the three dots activates the standard Windows dialog to select the folder. Click OK to confirm the settings, and the program will now use the information in the tablebases.

You can check whether the access is working by looking at the output of a chess engine.



In this example you can see entries "tb= xxx", which show how often the Houdini chess engine is accessing the endgame tablebases. A big advantage of the Syzygy Endgame Tablebases is that they are much smaller. The 6-man Syzygy tablebases need 150 GB disc space, whereas the Nalimov tablebases need more than 1 TB.

The Syzygy Endgame Tablebases pay attention to the 50 move stalemate rule. If there are 50 moves without a piece being taken or a pawn being moved, the game is drawn. Since the data can be accessed in RAM very fast and effectively the Syzygy Endgame Tablebases are now used exclusively by many modern chess engines.

For instance, the chess engine only uses the Syzygy tablebases during the search, but it also uses the Nalimov tablebases when a position is on the board. It is to be expected that the Syzygy tablebases will become increasingly popular with engine developers.

The best way to get the complete Syzygy Endgame Tablebases is to buy the *Endgame Turbo 4* from our online shop.

Because of the size of the tablebases it is best to install them outside of the Documents folder, for instance in C:/Tablebases/.

There are two different types of Syzygy tablebases.

WDL (Win-Draw-Loss).
In these files only information about the result of the position is stored. This is the

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only information used in the search. Based on this information the chess engine cannot tell how many moves it will take to win the game. The engine is merely informed whether the position is a Win, a Loss or a Draw.

DTZ (Distance to zero).
These tablebases are used by the GUI to generate a value which states how many moves it will take to win the game. Some engines use this information during the search.

The Syzygy tablebases support bitbases in both WDL and DTZ format. The latter format is only used when an exact position is already on the board. However, only the number of moves to reach another endgame (or sometimes checkmate). Another endgame begins after any move that resets the 50 move rule. By this definition, every time a piece is taken or a pawn moves a new endgame has begun and the count is set to 1. If a pawn keeps advancing, after every move the count is 1 again. That means that the count is reset after every move which changes the position irreversibly.

This means that the Syzygy Endgame Tablebases are different to the tablebases that have been used until now. This means that the moves to mate are not necessarily displayed, but the moves to the transition into another endgame. When sorting the moves pawn, capture and promotion moves are put first, because these are the moves that bring the game forwards.

For example, if you are using the engine to analyse a 5 or 6 piece endgame that can definitely be won, the Syzygy tableBases might give an evaluation of +250. There is no longer a display of "Mate in x moves".

As in the case of the Nalimov tablebases there are 290 files for the 3/4/5-piece endgames, but they are differently distributed. The Nalimov tablebases have two files per endgame, one for "White To Move", one for "Black To Move". The Syzygy tablebases only need one file, regardless of who is moving, but there are two versions of each tablebase: one contains the WDL (Win-Draw-Loss) result and the other contains the DTZ (Distance-To-Zero) result.

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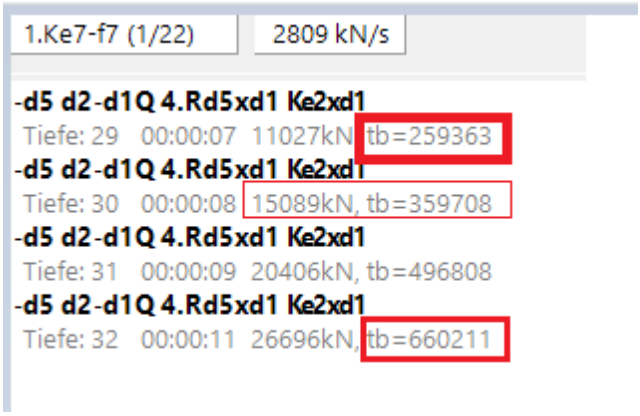
3.9.26 Syzygy Endgame Turbo Tip

If you have installed the engine and chosen access to the endgame tables in the options, either set up a simple endgame or load a game which finishes with an endgame.

Then start the infinite analysis and check whether the desired information from the endgame databases is being displayed.

If you look more closely, in the engine window access to the available endgame tables is also being displayed.

For the sake of clarity the display indicating access is highlighted in colour.

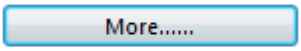


Should no information be displayed despite correctly set pathways and integration, tale into account the following hint: the tb access display is only visible, if only a single variation is being considered.

Note: In multi-variation mode this information is not displayed!

3.9.27 Copy endgame databases to hard disk

File Menu Options Tablebases



Click More ...

A major feature is the support of the new ***6-men Syzygy table bases***. The program has been extensively tuned for this state-of-the-art end game table base system and will provide optimum precision and strength in the late endgame at any time control and with any number of cores. While we strongly recommend using the 6-men Syzygy tables, Houdini 4 continues to support Nalimov and Gaviota table bases.

Accessing the endgame databases (Nalimov tablebases) from a hard disk is much faster than from the CD. It is advisable to install them onto your hard disk, if you have

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enough space.

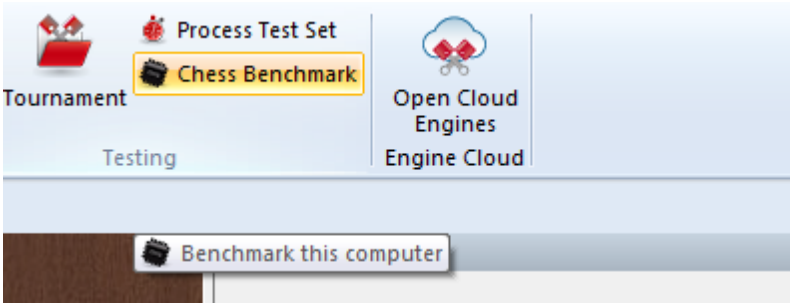
Create a directory (e.g., e:\cbdata\tbs) on your hard disk and copy the content of the directory \TBS from the program CD into the new directory. Then set the path in the "Options" dialog box:

Note that you can put the tablebase files into different directories, partitions or even different hard disks on your computer. Use the "Browse" button to locate the directories.

The *cache memory* is used to speed up access to the tablebases during a game. A value between one and eight MB is advisable.

3.9.28 Benchmark

Engine Chess Benchmark



The speed of the hardware that the engine is running on, has great influence on its playing strength. Obviously, a 3 GHz Pentium is going to give you a much better performance than one running at 1.7 GHz. But the optimum configuration of the hardware also plays an important role. For instance, the amount of first and second level cache, the speed of access to memory, and other such factors, can lead to considerable variance. Two computers with exactly the same processor may produce quite different results.

A built-in chess benchmark helps you measure the chess specific performance of your hardware. In order to make the results reproducible it is always conducted with a standard chess engine.

The results of the chess benchmark test depend to a great extent on the size of the hash tables. It also varies according to the number of applications you have running in the background. You should use the test to check the effectiveness of your current configuration.

Typical chess benchmark values for a 2.6 GHz Pentium with 128 MB hash tables is 1.4 (i.e. it is 1.4 times faster than a P3 running at 1 GHz. You should get a kilonodes per second value of abround 600. The Centrino and Athlons will give you much better values, since they are better suited to the kind of (integer) calculations used by chess engines.

The nodes-per-second value of the chess benchmark gives you the number of

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positions the engine is generating and evaluating per second. This value (in "kilo nodes") is independent of hash tables, and depends almost solely on processor speed. Some engines will give you up to two million nodes per second on modern hardware. But remember that the lower node counts of some engines does not necessarily mean that they are weaker. Usually they are simply processing more chess knowledge.

Fritz Chess Benchmark.exe

On the program DVD there is a utility called Fritz Chess Benchmark.exe. This is what is running during a chess benchmark as described above. The utility can also be started independently, which means you can copy it onto a memory stick and run it on different computers when you are purchasing a new one. This will help you make sure you select a machine that gives you good values for chess calculations.

3.9.29 Engine Interface

The program's engine interface has been adapted to the latest Windows specifications, for example Windows 8/10.

This means that all current and future engines will don be stored in the folder

\Program Files\Chessbase\Engines but in \Program Files\Common Files\Chessbase\Engines.

This is the folder where the new engine and the latest version of Crafty will be installed.

Older chess engines installed by previous program versions will remain in the folder

\Program Files\Chessbase\Engines.

UCI Engines

UCI engines can still be installed in any folder in any partition anywhere on the computer.

The UCI configuration files with the extension ***.uci** must always be stored in the folders

\My Documents\ and \Settings\<username>\Application Files\Chessbase\Engines.UCI.

3.10 ChessBase Web Apps

3.10.1 Startscreen

After installing the program you can launch it my double clicking the program icon on the desktop.

First the start screen is displayed.

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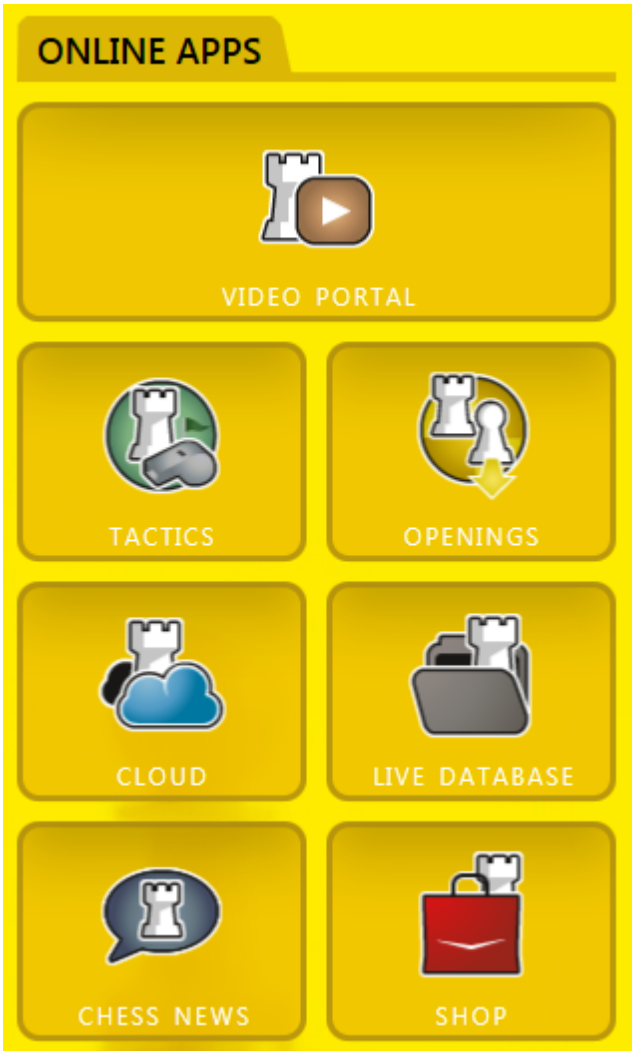
You can use the buttons on the right side of the start screen to access our **web based apps** which can be used with any current browser.



You can carry out free tactics training, save your games on the cloud server or access our large online database.

The various buttons of the starting screen provide immediate access to our web-based apps which can function in any common browser. Make use of the option for free tactical training, saving your own games on the cloud server or for direct browser access to the large online database!

Be aware that we have put at your disposal other Web Apps which cannot be accessed directly from the starting dialog for the program. You will also find these alternative Apps **described in a separate document**!

Tip: There can be differences. You can access the content via ChessBase, the chess programs or with the free access client.

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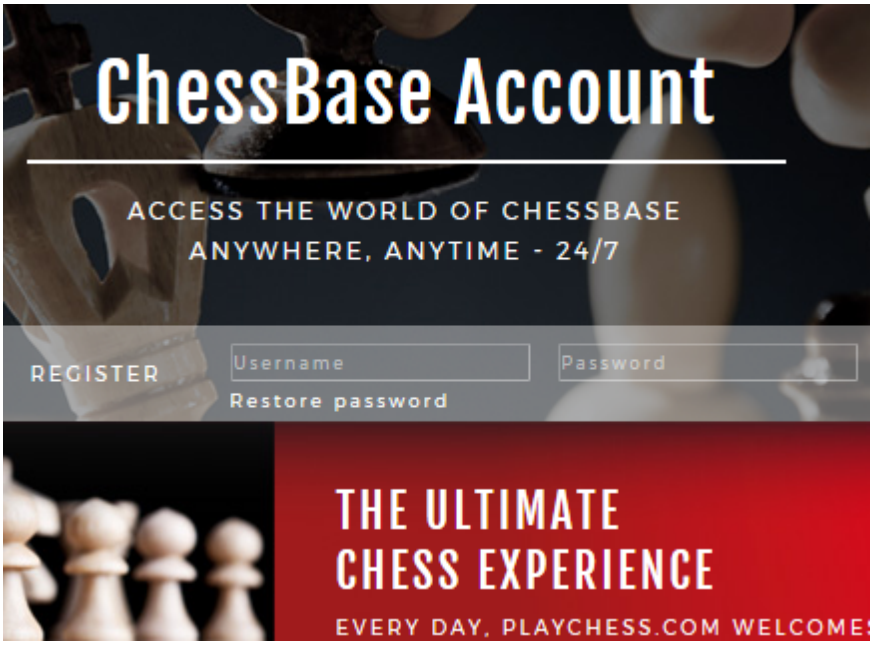
3.10.2 Information about the ChessBase Account

In order to use our Web Apps it is absolutely necessary to have a ChessBase Acount.

So every user who would like to make use of this service must set up a ***ChessBase Account***.



With your program you receive premium access.

Compared to our PC programs the Web Apps have the great advantage that these applications can be used independent of your computer's operating system, no matter whether it is a computer with Linux, a MAC or a mobile device (smartphones, tablets). Any functioning internet access and a browser are all it takes for you to be able to make use of the various programs. Like that you can be doing effective chess training at any time when you are away from home. Play chess against other people or against a chess program, follow live chess, save your own chess data and openings, work on games, analyse, etc. You can carry out all these functions at any time and from any location with a ChessBase Account!

3.10.3 How to register with Fritz15 or CB14

With your chess program Fritz 16 or the database program ChessBase 14 you will get a **Premium membership** for the ChessBase Web Apps.

Login with your account at https://account.chessbase.com/en

Now click directly on your account name.

That will open a site where you can "*Extend membership with serial number*":

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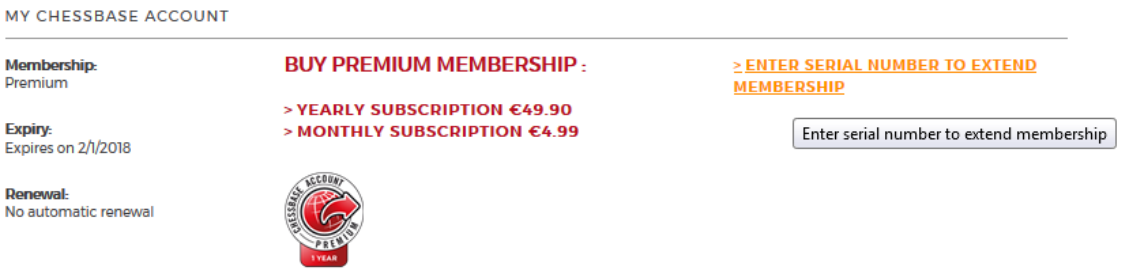

Enter your program key here.

3.11 Elo ratings

3.11.1 Elo ratings and lists

The Elo rating system was invented by Árpád Élö" (1903-1992), a Hungarian-born American physics professor, who spelled his name "Elo" after he left Hungary. So Elo is not an acronym and should not be wirtten ELO.

Here's a list of rating categories

Playing strength	Player category
1000-1600	Average club player
1600-2100	Strong club player
2100-2300	International league player
2300-2450	International Master (IM)
2450-2600	Grandmaster (GM)
2600-2850	Supergrandmaster, world champions, Kasparov

The world's strongest chess engines, running on fast hardware, today (2005) have an Elo rating of over 2800. They are a match for the strongest human chess players in the world.

The Elo ratings can also be used to evaluate chess engines. This program helps you to do this by producing rating and ranking lists on the basis of engine tournaments. In fact, it contains a complete Elo management system. GM and IM norms are automatically recognized and titles awarded. The Elo calculation can be used to evaluate human performance, even for historical tournaments that were held long before the rating system was invented. If you have an existing Elo list, you can add a tournament to update the list.

Before you start rating tournaments you should create an Elo start list. This gives all players a plausible initial rating. After that, you must maintain the list by evaluating tournaments as they are played. To do this, mark the games of a tournament, right-

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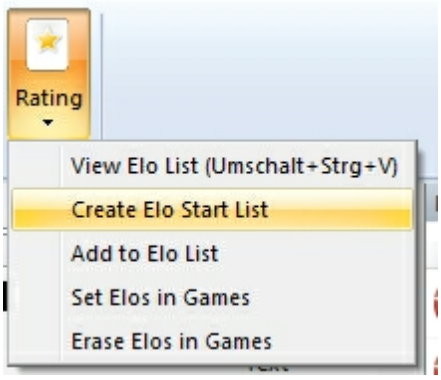
click them, then select "Add to Elo list" in the menu that appears. If no Elo list is open, then a file selector appears, allowing you to select a list to add games to.

3.11.2 The Elo start list

Database Window - Rating Create Elo Start List

Unix inventor and computer chess pioneer, *Ken Thompson*, has developed an algorithm which allows one to create an Elo rating list out of an arbitrary set of games. Any database of games can be treated as a gigantic tournament. Each player gets the same initial rating (e.g., 2400). After evaluating the results of all games in the database, each player gets a new rating. Using these new values, the games of the database are rated again. This is done over and over again, until the ratings of all players stabilize and the values remain constant.



The Elo management in our chess program was implemented mainly in order to evaluate engine tournaments. But it is very interesting to use it on human results as well. It can also be quite exciting to create Elo lists for historical game data. For the system to work properly, it is absolutely critical that the players' names are completely unified. We recommend using the large high-quality databases from ChessBase (e.g., MegaDatabase) for the creation of historical Elo lists. Most other databases contain player names with different spellings and other inaccuracies. In addition, databases which do not contain complete tournaments will distort the ratings. For instance if they only have the best games of certain players these players will achieve very high ratings from the program.

For engine ratings, a good Elo list should be based on at least 300 to 500 games. Implausible values in the start list are not a big problem, because after a few engine tournaments, the programs will approach their real ratings (underrated engines will shoot up, grossly overrated ones will lose point very quickly).
This is how to generate an Elo list

- First, select all the games in a database list that should be used for calculation. If you want to use the whole database, press **Ctrl-A** to select them all.

- Click *Database Ratings Create Elo Start List*.

- The program prompts you for a file name. If you use an existing Elo list, its contents will be overwritten.

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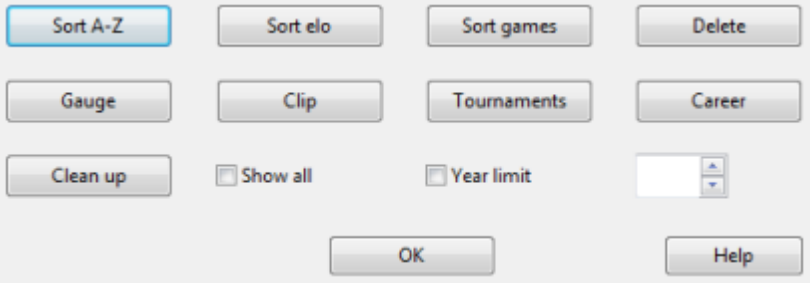
- If there are not enough games per player in the database, the program informs you, and does not calculate any ratings.

The Thompson algorithm calculates relative playing strengths. It assumes that the average rating of all the players in a rating list is 2400. This will normally not be the case. To get correct practical ratings, it is necessary to rescale or gauge the list by adding or subtracting a certain percentage from each player. The best way to do this is to take a very stable player with a known rating, and add or subtract an offset to make the rating equal his real rating. The program will then adjust the ratings of all other players accordingly.

3.11.3 Viewing the Elo list

At the bottom of the Elo list window there are a number of buttons. They allow you to sort the list alphabetically, according to ratings or number of games, etc.



Here are what the buttons in the Elo rating display do:

- **Sort A-Z:** Sorts the list alphabetically according to the players' names.
- **Sort Elo:** Sorts the list according to Elo rating (default).
- **Sort games:** Sorts the list according to the number of tournament games.
- **Delete:** Allows you to mark players and remove them from the list.
- **Gauge:** Allows you to rescale or gauge the list by adding or subtracting a certain percentage from each player.
- **Clip:** Copies the whole list to the Windows clipboard. You can then paste it into a word processor or spread sheet.
- **Tournaments:** Displays a list of all the tournaments which were used to create the list.
- **Career:** Displays a list of the tournaments in which the selected player participated.
- **Clean up**: Removes all players who have been inactive for more than six years, counted from the last tournament that was evaluated from the list.
- **Show all:** Displays all players who were evaluated, including those for whom the

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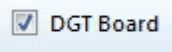
number of games were too small for a correct rating.

- **Year limit**: Allows you to restrict the list to tournaments played before a certain period.

3.12 External hardware

3.12.1 Connect hardware

Board DGT Board



The program makes contact with the outside world via a serial cable to the outside world. Currently, two drivers are included:

- **DGT-Board:** This driver allows you to use the intelligent sensor board produced by the Dutch company DGT. The board can identify different pieces (i.e., it can tell whether there is a white bishop or a black knight on a square). If you switch on "Announce moves" in the Tools – Options – Multimedia menu, the program announces its moves verbally, so you don't even have to look at the screen.

The connection between the board and the PC can be over 10 meters long, and many of the functions (new game, setup position) can be executed without touching the PC.

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The program can also be connected to the ***DGT XL Chess Clock***. This clock displays the time and also the moves that are played. This means you can play on the DGT board, with the clock attached, and you can read the moves of the chess engine off the display of the chess clock.

3.12.2 DGT Rabbit Plugin

Can you enter a position using the DGT-USB board and then carry on using it in ChessBase or Fritz?

You can play on from any position which has been entered if when entering the position you place the kings last on the electronic chess board. As for the colours, the king of the side which is on the move must be the last one to be placed on the board!

Should problems arise, please proceed as follows.

- The position is set up without kings.
- Then connect the DGT-board via the USB cable.
- In ChessBase check the box for Board – DGT board.
- This starts the "DGT Rabbit plugin".
- The position which has been set up appears in the Rabbit plugin and in ChessBase.
- The kings are then placed on the board one after the other and appear in ChessBase.

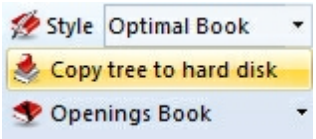
If at that point playing or analysing is not possible, the cause probably has to do with a setting in the Rabbit plugin.
In the "Rabbit Plugin" a box must be checked under "Extras" – "Use Start/Stop setup". This setting is sometimes missing. Check the box and the driver will work.
The position which has been set up then appears in the Rabbit plugin, in ChessBase you have the starting position.

The kings are then put in place one after the other and the position which has been set up appears in ChessBase. The position is then ready for play.

3.13 FAQ

3.13.1 Copy tree to hard disk not available

Menu Analysis - Copy tree to hard disk



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It only works when you have loaded a book from CD/DVD and does not yet exist on hard disk.

If you want to copy a book from CD/DVD drive, then load it first. You can do this by clicking on the tab "Openings book" on top of the annotation window.
If there is already a book loaded, right click on an empty spot in the window pane and select "Close book file". A button "Load book" appears.

Click on the button and select the book from CD. The file should have the extension ***. ctg**

After you have loaded the book, the function "*Copy tree to hard disk*" will be available.

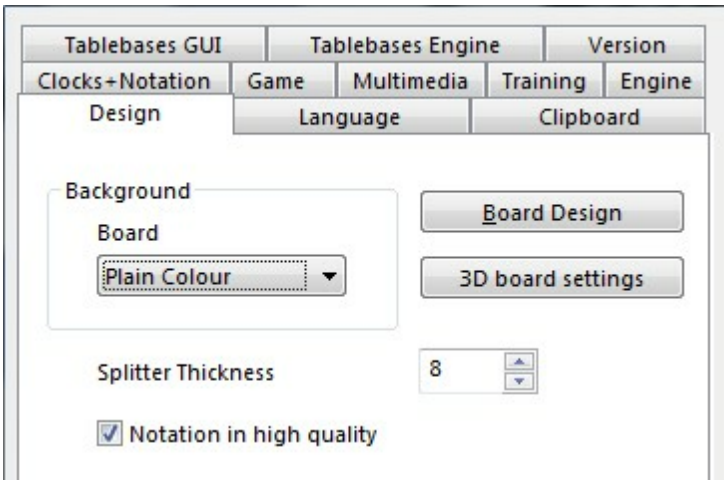
3.13.2 Problems in the display of the list window?

Menu File - Options - Design

In rare cases there can be problems with the display in the list windows or in the notation window.

If, e.g., what is printed in the lists does not appear until you have scrolled up or down the list or till you have used the **ALT - TAB key** combination, then a change in the options dialog for the program will help.

In the dialog box there is the option "*Notation in high quality*".



If you deactivate this setting, then the problems with text display which have been described will no longer occur.

3.13.3 3D board problems

Although the 3D board has been tested on a variety of different graphical cards, errors may occur on cards on which the program has not been tested. This part is rather complex and the programmer needs a lot of information in order to find a solution. For this reason, a special function has been build in the program which sents all the necessary information straight to the programmer.

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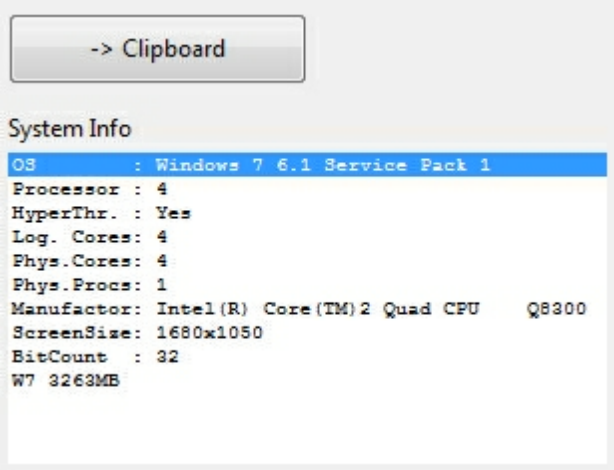
Below the 3D board is the button "*Settings*". In the dialog, click on tab "*Info*".



It is helpfull if you add a description of the problem in this mail before you actually sent it. Or use the -> Clipboard button. Open your mail program and use **Ctrl-V** to paste this information into the textfield.

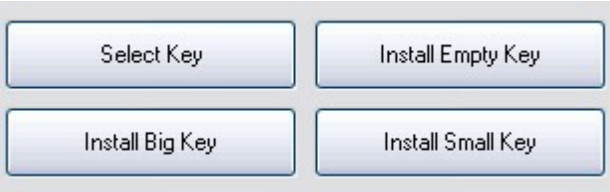
3.13.4 Letters on the board ?

You get letters on the board instead of pieces ? The Fonts are not installed correctly.

In case you notice letters instead of chess pieces on the board, please try to reinstall the program.

3.13.5 Reference database

You set a database as the Reference database in the Full analysis, but the program does not use it ?



The database which is used as the reference database needs to have an openings key installed.

You can easily check this in the database window. Click on the tab "Openings". If there is no key installed, you will see 4 buttons to install one. It is best to either select the Big key or install one from the Mega database, the Big database or the database which is delivered with the chess playing program.

If you click on the button "Select key" you will be looking for a file with the extension ***.cko** which should be present in one of the mentioned databases.

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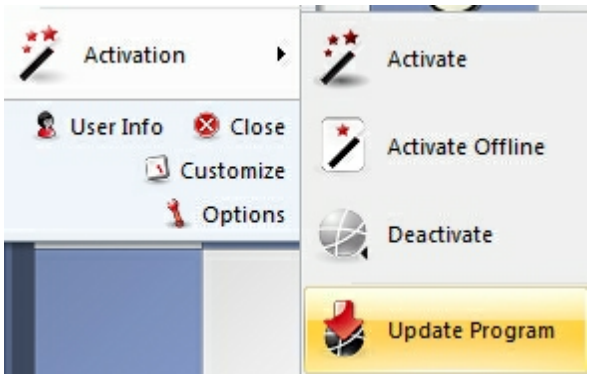
3.13.6 How do I upgrade my program ?

It is important that you use the last upgrade of the program for many reasons. Problems may be fixed in newer versions, but the functionality of the program can also be increased.

You must first activate your Program to get Program updates.



Click *Update Program*. As soon as you have done this, the program will inform you if an upgrade is available.

After the download of the upgrade file, the program will ask to log off. Do this and wait patiently until the program responds with the message "Internet upgrade ok".

3.13.7 Admin Tool

In the program folder you will find the separate program "*ChessBaseAdminTool.exe*".

[..]		<DIR>	29.10.2015 14:17	——
[Bitmaps]		<DIR>	26.10.2015 20:23	——
[Chatter]		<DIR>	26.10.2015 20:22	——
[GIF]		<DIR>	26.10.2015 20:23	——
[HTML]		<DIR>	26.10.2015 20:22	——
[Messages]		<DIR>	29.10.2015 14:17	——
[Prereqs]		<DIR>	26.10.2015 20:22	——
[Ribbons]		<DIR>	21.09.2015 15:20	——
ChangeLog	txt	13	21.11.2014 09:34	-a--
Chess32	dll	158.088	12.11.2015 19:46	-a--
ChessBaseAdminTool	exe	936.840	12.11.2015 19:42	-a--
ChessProgram15	exe	19.321.736	12.11.2015 19:48	-a--
ChessRes	dll	1.331.080	12.11.2015 19:42	-a--
Eco	cbcod	4.172.508	18.01.2011 10:04	-a--
ExpressionEncoder	dll	93.064	12.11.2015 19:48	-a--
FrameRes	dll	4.325.256	12.11.2015 19:42	-a--
Fritz Chess Benchmark	exe	533.480	03.03.2010 16:56	-a--
Fritz15BetaVersion	xml	1.687	10.09.2015 16:32	-a--
Fritz15Version	xml	1.673	10.09.2015 16:32	-a--
SView3	dll	1.359.752	12.11.2015 19:42	-a--
Textures3	dll	16.169.352	22.10.2015 18:45	-a--

This application is started automatically after the program is started and informs you about the activation status of the installed programs.

In the case of problems with the activation the program can be started manually by double cliclicking on the EXE file in the program folder.

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Activate starts the dialog for the program activation.

Activate Offline starts the dialog for the program activation on a computer without Internet access.

Deactivate deactivates the selected program version.

3.13.8 Improve the responsiveness of the computer while the engine runs

There are several ways to keep your computer more responsive while Kommodo is thinking:

- Run the engine at “Lower than normal” priority. Most chess GUI will provide this option, for example: Fritz/ChessBase has a "Priority Below Normal" checkbox in the dialog for creating the UCI engine.

- If you want to use your computer for other purposes while analyzing chess positions, set the "Threads" configuration option to a value smaller than the the number of physical cores of your computer - for example, use 3 on a quad-core computer. This will leave one core available for other applications while the chess analysis runs in the background.

3.13.9 Which Hash Size should I use at various time controls?

Forinfinite analysis or long Time Control matches you should use the largest hash possible - typically about half of the total RAM memory of your computer. For example, on a system with 4 GB of memory you can use up to 2048 MB hash size, on a 12 GB RAM system you can use up to 8192 MB.

For shorter games, e.g. 3 to 5 minute games, it’s better to use 256 MB or 512 MB as this will provide the best performance. For 16 min games 1024 or 2048 MB hash size should be fine.

If you know the average move time T (in seconds) and the average node speed of your hardware S (in kN/s), you can compute the optimal hash size with the formula: (T x S / 100) MB.

For example if you use a Time Control of 10 minutes for 40 moves repeating, the average move time T = 15 seconds. On hardware that produces about 2,000 kN/s the optimal hash size would then be approximately (15 x 2,000 / 100) = 300 MB, in other words 256 MB or 512 MB would be the recommended values.

3.13.10 Deep Position Analysis feature

If you use the Deep Position Analysis feature, it is possible that Kommodo analysis went down risky lines without taking note of drawing/equalizing chances almost every move. Is that to be expected?

If you want Kommodo to favor drawing lines, you should consider putting Houdini's "Contempt" value to 0.

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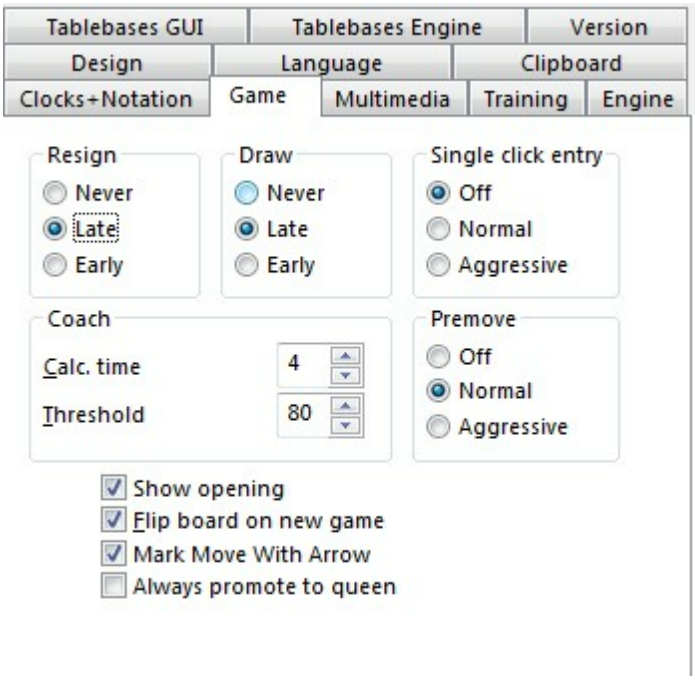
ChessBase runs its deep position analysis by simulating game conditions. This means that Houdini thinks that it's in a game instead of an analysis, and activates the contempt (default value 1). To avoid this, it's best to put the Contempt value to 0 when using the deep position analysis in ChessBase.

3.13.11 Examples

3.13.11.1 Optimising move entry

Menu File - Options - Game - "Premove"



This function helps save you time in blitz or rapid chess. Whilst it is your opponent's move and he is thinking about his reply, you can already execute the planned move on the board. This makes particular sense when you have obvious counter moves and it saves valuable seconds of thinking time in blitz or bullet games.

The counter move is displayed on the board with a green arrow. In an ending, it can make sense to enter several moves in succession, e.g. a pawn breakthrough such as e3-e4-e5-e6-e7-e8. In this case the moves are automatically executed as soon as your opponent has moved. When this is done, promotion is always to a queen.

Tip: If your opponent has not yet replied and you want to delete your entry, you can delete any pre-entered list of moves with a right click on the graphical chess board.

What is the effect of the individual parameters? The setting Off is easy to understand. It deactivates the function.

- **Normal** = With this setting, it is always the first move on the list which is executed. If the move is not a legal one, the list is deleted and you have to make your own reply.

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- **Aggressive** = With this setting, an attempt is always made to execute the first move on the list. If the move is not legal, then only this move is deleted and the next possible move from the list is played.

The feature and the logic behind it require some practice. It could also be said jokingly that this is a certain way to lose every game, and to do so unbelievably quickly.

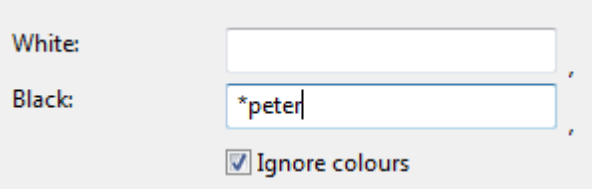
Tip: Before trying out this feature on the chess server and risking valuable ratings points, you should play with the function against a chess engine such as Kommodo. The option also works in classical play against chess engines.

3.13.11.2 Database search – watch out for small or capital letters

If you use the search mask in Kommodo to look for specific players, the program only selects from the database those entries is which the player's name begins with a capital letter. But when you play games on the chess server or get game data from the internet, then a lot of players' names are written with a lower case letter at the start. Is there any way to collect from the database entries for players whose names start with a lower case letter?

The search function in the program or ChessBase considers that all names start with a capital letter. If, e.g., you are looking for "*peter*", the program changes the search criterion to "*Peter*". This procedure actually offers a lot of advantages when you are searching for names.

But, since there are a lot of games in, e.g., the database MyInternetGames with names in lower case, there must be some way to home in on these and select them.



Solution: In your search, enter a * in front of the names. So in the aforementioned example, you should enter simply "*peter* into the search mask.

3.13.11.3 Displaying thinking time

The chess clock with Fritz displays elapsed thinking time for both sides.

The left hand clock is for White and the one on the right shows the time used by Black.

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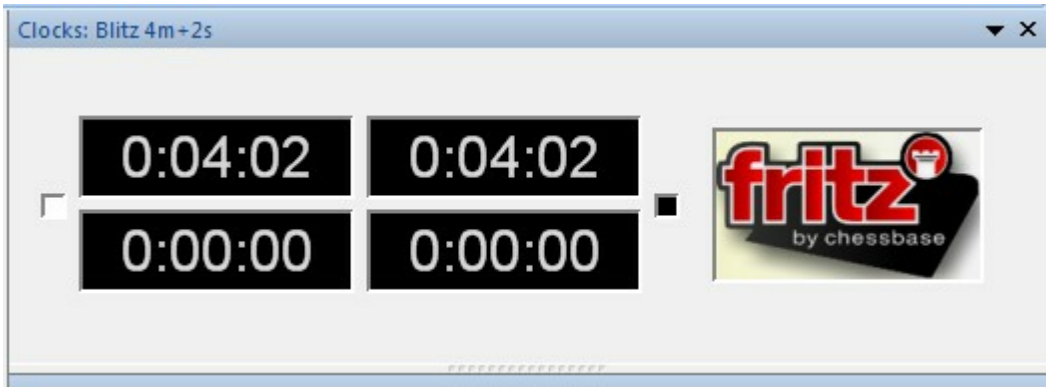
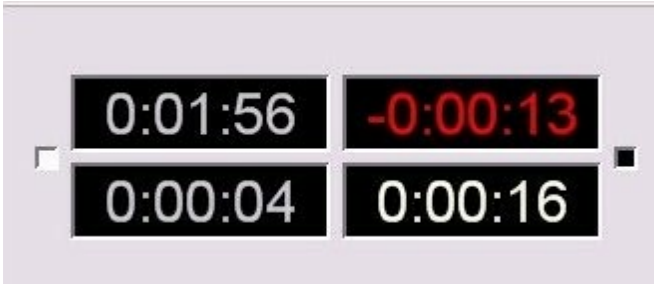


The program has two sorts of chess clock, digital and analog, and you can choose between them with a right click in the clock window. The window for the chess clock can also display the logo for the engine which is working (right click on the window). What is particularly informative is to make use of the chess clock with doubIe digital display. The simplest way to call this up is with a right click in the clock window when you will find the entry "Double digital" which displays it. The upper clock always shows the complete time and the lower one the time you are spending per move.

You can also choose to display on the clock the specific difference in thinking time between the two players, either when playing against Kommodo or on Playchess.com. This informative representation of difference in thinking time is especially useful when playing blitz or bullet games on Playchess.com.

The value displayed in green figures shows a positive value. In this display, White has a concrete time advantage of 20 seconds over his opponent. A similar negative value would be expressed in red figures.



This display can be set up either with a right click on the clock and via the context menu or alternatively via the options dialog under "*Menu File - Options Clocks + Notation*".

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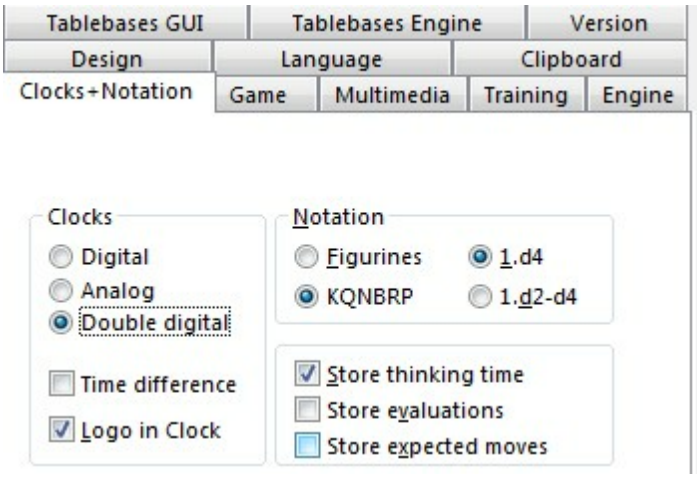
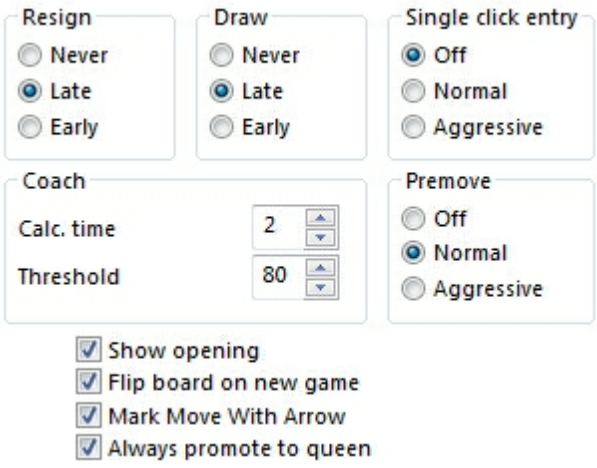


3.13.11.4 Correct promotion!

Problem: Every time it is your move, the program automatically promotes to a queen whenever a pawn reaches the eighth rank. The option of underpromotion is not offered, although you have deactivated the option "Always promote to queen" under *Menu File - Options - Game*.



A pawn is always promoted to a queen whenever the preset "*Single click entry - Aggressive*" has been selected. This makes sense especially in bullet games on the chess server, when you would not like to waste too much time responding.

You can always force the dialog for promotion by holding down Ctrl-Shift before moving the pawn to the final rank.

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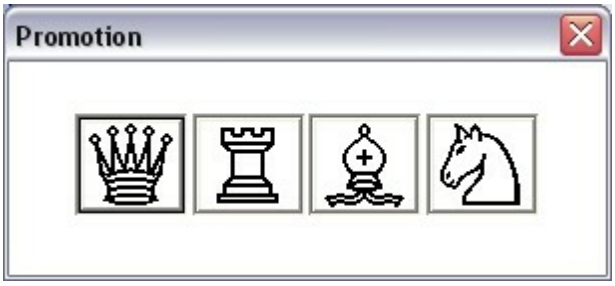

3.13.11.5 Notes on rated games

You can play rated games against the program. In this mode you can specify at which estimated Elo strength Kommodo should play.

You call up the dialog for rated games by *Training Rated Game*.

The point of rated games is that both sides start from the same conditions.

If, for a game, you set a human bonus of xx seconds per move, then, unlike in normal games, this is not taken into account in rated games. Nor is the taking back of moves accepted in games in this mode.

This is not a mistake; it has been done on purpose. In any serious match or tournament game, then the rules do not allow a time bonus to the advantage of one side or the other. If that were the case, then the idea of equal playing conditions and the point of rated games would not be respected.

3.13.11.6 Chess training with Theme Blitz

Chess training can be carried out efficiently with the option "Theme Blitz".

What is the point of this option? One recognised method of improving playing strength consists of acquiring as much experience as possible with specific types of position. This function allows you to play against the computer from specific positions. It does not matter whether these are positions from the opening, the middlegame or the endgame. The function is similar to opening training, except that in every case you start from the latest position on the board.

An interesting option here is "*Learn moves*". When this is activated the game starts from the very beginning, from the starting position.
If you enter a move which deviates from the opening moves which lead to the chosen position, the coach is called up, just as happens in Opening Training. The coach points out that a move has been played which does not fit into the particular variation which leads to the position you have selected.
If you deactivate the option "Learn moves", then each game will start directly from the basic position which you pre-defined during the dialog "Starting position".

The option "*Change sides*" also makes a lot of sense. You can deepen your understanding of how to treat specific types of position by getting to know the strategies employed by both sides. So with this function switched on, every time you start a new game you have to change sides.

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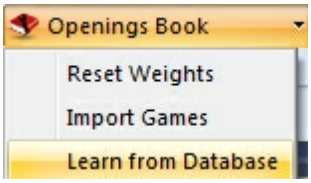
3.13.11.7 Fine-tuning openings books

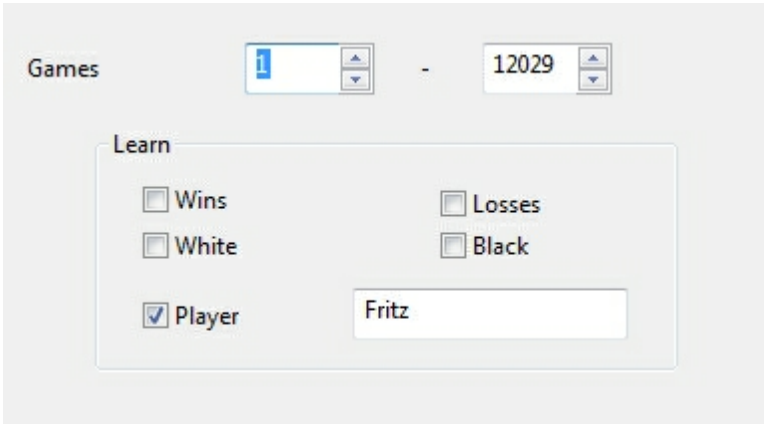
According to the opening, it can happen that a chess program does not perform at its best because it has fallen into an unfavourable opening variation.

Let us assume that over time you have put together a database of games in which a computer program was defeated by its opponent because of an unfavourable opening variation. So that this situation is not repeated, you can arm the engine against this line.

From the main screen we load Openings book and select from Edit – Openings Book the option *Learn from Database* .



You then enter into the dialog box the path of the database which contains the aforementioned defeats and the following dialog is called up:



We can now specify which information from the database Kommodo & Co should take into account. These options (which can all be combined) assimilate the weightings into the openings book, just as if the engine had itself played the games in question.

In normal circumstances the program alters the weightings given to each move in the openings book according to the experience gained from its own games. These weightings decide the probability with which any specific move will be played. This process of automatically adjusting these weightings after winning with a specific variation is called "*Learning*".

This feature has other practical uses. Many computer chess freaks are committed to playing with their chess engines in the engine room of the chess server playchess.com.

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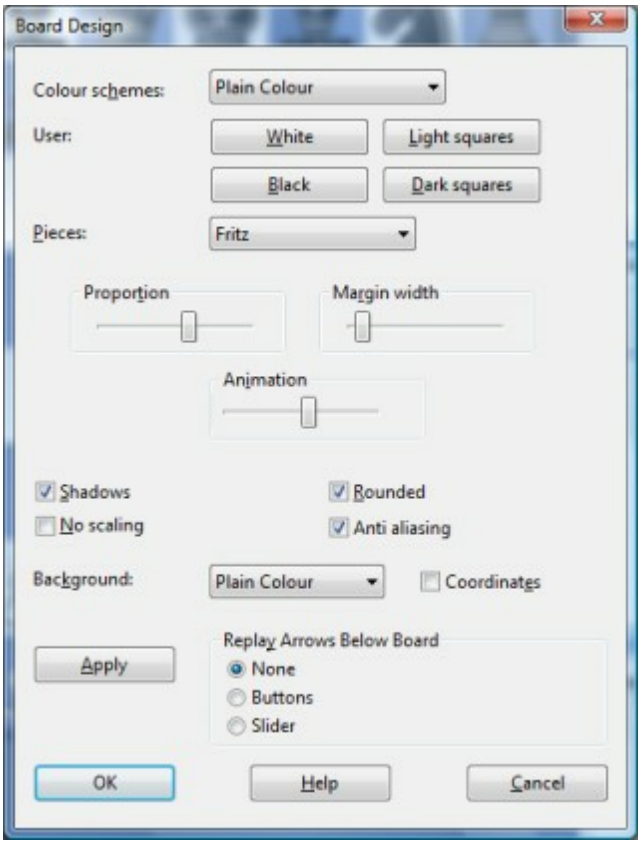
3.13.11.8 Alternative piece designs

In addition to the standard set of pieces, the program offers some alternative ways of displaying the pieces on the board. The simplest way to change them is by Right click -- Board Design from the board.

The Board design dialog contains the entry "*Pieces*".

This allows you to select the set of pieces you wish; it will then be used to display the pieces on the board.



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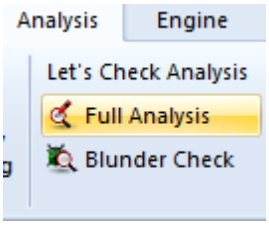
Under *Board - Pieces* you can select the pieces too.

3.13.11.9 Producing opening references

The program offers numerous innovative functions to help you analyse games effectively. Under the automated Full Analysis of games there is the option of integrating not only variations and text comments but also references to the opening being played.



For that there is the box "*Opening reference*".

With the help of a reference database, Kommodo can classify the game. The program integrates actual games for comparison and marks the point at which the game which is being analysed deviates from opening theory.

Some users have found it irritating when the entry for the reference database is greyed out and the function cannot be activated.

This option is only activated if you have selected a reference database, Click on the button *"Reference-DB*" and select a database from the list offered.

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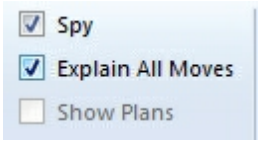
Note: The DVD ROM contains a large database of games which you can set as your reference database.

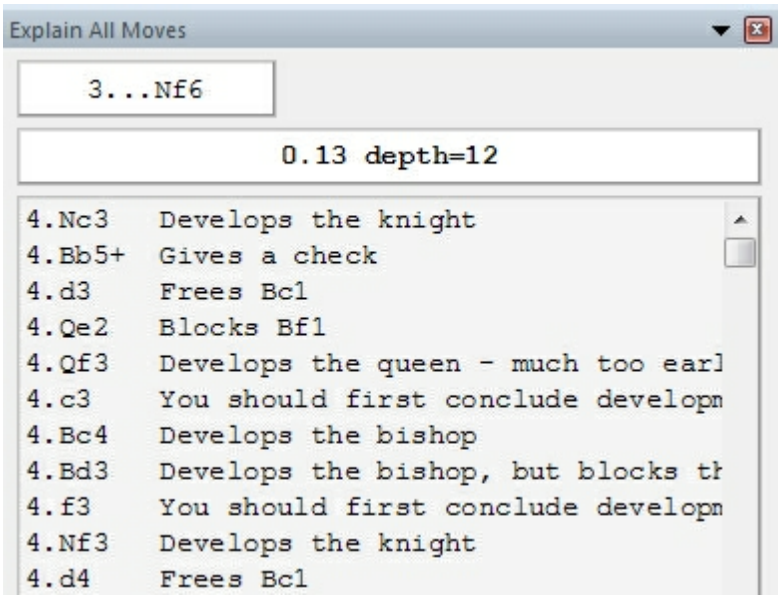
3.13.11.1 The move list

Under Training there is the function Explain All Moves.



This function offers you a list of all possible legal moves and short textual explanations.

Of course, this function is in the first place aimed at beginners. But it can also render useful service in the analysis of a position.



The order of the moves as listed is based on the quality of the continuations. The program puts the best moves at the top of the list, whereas the not so good continuations find their way to the bottom. That can, e.g., be helpful when analysing opening moves.

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4 Chess rules (FIDE)

4.1 Preface

FIDE Laws of Chess cover over-the-board play. The English text is the authentic version of the Laws of Chess which was adopted at the 67th FIDE Congress at Yerevan September-October 1996, coming into force on 1 July 1997. In these Laws the words 'he', 'him' and 'his' include 'she' and 'her'.
The FIDE Rules and Regulations and other official documents are the property of FIDE and the FIDE member federations and may be dealt with by each under their own national law. The General Assembly urges the member-federations to make the FIDE Rules and Regulations widely available in their countries in an appropriate manner. The name "Official / Authorized Rules and Regulations of FIDE" and the FIDE logo may not be used without the consent of FIDE.
FIDE stands for Federation Internationale D'Echecs.

Preface

The Laws of Chess cannot cover all possible situations that may arise during a game, nor can they regulate all administrative questions. Where cases are not precisely regulated by an Article of the Laws, it should be possible to reach a correct decision by studying analogous situations which are discussed in the Laws. The Laws assume that arbiters have the necessary competence, sound judgement and absolute objectivity. Too detailed a rule might deprive the arbiter of his freedom of judgement and thus prevent him from finding the solution to a problem dictated by fairness, logic and special factors.

FIDE appeals to all chess players and federations to accept this view.

A member federation is free to introduce more detailed rules provided they:

(a) do not conflict in any way with the official FIDE Laws of Chess
(b) are limited to the territory of the federation in question; and
(c) are not valid for any FIDE match, championship or qualifying event, or for a FIDE title or rating tournament.

4.2 1: Nature and objectives of chess

1.1. The game of chess is played between two opponents who move pieces alternately on a square board called a 'chessboard'. The player with the white pieces commences the game. A player is said to 'have the move', when his opponent's move has been completed.

1.2. The objective of each player is to place the opponent's king 'under attack' in such a way that the opponent has no legal move which would avoid the 'capture' of the king on the following move. The player who achieves this is said to have 'checkmated' the opponent and to have won the game. The opponent who has been checkmated has lost the game.

1.3. If the position is such that neither player can possibly checkmate, the game is drawn.

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4.3 2: Initial position on the chessboard

2.1. The chessboard is composed of an 8x8 grid of 64 equal squares alternately light (the 'white' squares) and dark (the 'black' squares). The chessboard is placed between the players in such a way that the near corner square to the right of the player is white.
2.2. At the beginning of the game one player has 16 light-coloured pieces (the 'white' pieces); the other has 16 dark-coloured pieces (the 'black' pieces).

These pieces are as follows:

A white king	A black king
A white queen	A black queen
Two white rooks	Two black rooks
Two white bishops	Two black bishops
Two white knights	Two black knights
Eight white pawns	Eight black pawns

2.3. The initial position of the pieces on the chessboard is as follows:

2.4. The eight vertical columns of squares are called 'files'. The eight horizontal rows of squares are called 'ranks'. A straight line of squares of the same colour, touching corner to corner, is called a 'diagonal'.

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4.4 3: The moves of the pieces

3.1. No piece can be moved to a square occupied by a piece of the same colour. If a piece moves to a square occupied by an opponent's piece the latter is captured and removed from the chessboard as part of the same move. A piece is said to attack a square if the piece could make a capture on that square according to Articles 3.2 to 3.5.

3.2. (a) The queen moves to any square along the file, the rank or a diagonal on which it stands.
(b) The rook moves to any square along the file or the rank on which it stands.
(c) The bishop moves to any square along a diagonal on which it stands.

When making these moves the queen, rook or bishop cannot move over any intervening pieces
.
3.3. The knight moves to one of the squares nearest to that on which it stands but not on the same rank, file or diagonal. It does not pass directly over any intervening square.

3.4. (a) The pawn moves forward to the unoccupied square immediately in front of it on the same file, or
(b) on its first move the pawn may advance two squares along the same file provided both squares are unoccupied, or
(c) the pawn moves to a square occupied by an opponent's piece which is diagonally in front of it on an adjacent file, capturing that piece.
(d) A pawn attacking a square crossed by an opponent's pawn which has advanced two squares in one move from its original square may capture this opponent's pawn as though the latter had been moved only one square. This capture can be made only on the move following this advance and is called an 'en passant' capture.
(e) When a pawn reaches the rank furthest from its starting position it must be exchanged as part of the same move for a queen, rook, bishop or knight of the same colour. The player's choice is not restricted to pieces that have been captured previously. This exchange of a pawn for another piece is called 'promotion' and the effect of the new piece is immediate.

3.5. (a)The king can move in two different ways, by:
(i) moving to any adjoining square that is not attacked by one or more of the opponent's pieces,
or
(ii) 'castling'. This is a move of the king and either rook of the same colour on the same rank, counting as a single move of the king and executed as follows: the king is transferred from its original square two squares towards the rook, then that rook is transferred over the king to the square the king has just crossed.
(1) Castling is illegal:
[a] if the king has already been moved, or
[b] with a rook that has already been moved
(2) Castling is prevented for the time being:
[a] if the square on which the king stands, or the square which it must cross, or the square which it is to occupy, is attacked by one or more of the opponent's pieces.
[b] if there is any piece between the king and the rook with which castling is to be effected.
(b) The king is said to be 'in check', if it is under attack by one or more of the

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opponent's pieces, even if such pieces cannot themselves move.
Declaring a check is not obligatory.
A player must not make a move which places or leaves his own king in check.

4.5 4: The act of moving the pieces

4.1. Each move must be made with one hand only.

4.2. Provided that he first expresses his intention (e.g. by saying "j'adoube"), the player having the move may adjust one or more pieces on their squares.

4.3. Except as provided in Article 4.2, if the player having the move deliberately touches on the chessboard
(a) one or more pieces of the same colour, he must move or capture the first piece touched that can be moved or captured, or
(b) one piece of each colour, he must capture the opponent's piece with his piece or, if this is illegal, move or capture the first piece touched which can be moved or captured. If it is unclear the player's own piece shall be considered to have been touched before his opponent's.

4.4. (a) If a player deliberately touches his king and a rook he must castle on that side if it is legal.
(b) If a player deliberately touches a rook and then his king he is not allowed to castle on that side on that move and the situation shall be governed by Article 4.3.
(c) If a player, intending to castle touches the king or king and a rook at the same time, but castling on that side is illegal, the player must choose either to castle on the other side, provided that castling on that side is legal, or to move his king. If the king has no legal move, the player is free to make any legal move.

4.5. If none of the pieces touched can be moved or captured, the player may make any legal move.

4.6. If the opponent violates Article 4.3 or 4.4 the player cannot claim this after he himself deliberately touches a piece.

4.7. When, as a legal move or part of a legal move, a piece has been released on a square, it cannot then be moved to another square. The move is considered to be made when all the relevant requirements of Article 3 have been fulfilled.

4.6 5: The completed game

5.1. (a) The game is won by the player who has checkmated his opponent's king with a legal move. This immediately ends the game.
(b) The game is won by the player whose opponent declares he resigns. This immediately ends the game.

5.2. The game is drawn when the player to move has no legal move and his king is not in check. The game is said to end in 'stalemate'. This immediately ends the game.

5.3. The game is drawn upon agreement between the two players during the game. This immediately ends the game. (See Article 9.1)

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5.4. The game may be drawn if the identical position is about to appear or has appeared on the chessboard three times. (See Article 9.2)

5.5. The game may be drawn if the last 50 consecutive moves have been made by each player without the movement of any pawn and without the capture of any piece. (See Article 9.3)

4.7 6: The chess clock

6.1. 'Chess clock' means a clock with two time displays, connected to each other in such a way that only one of them can run at one time. 'Clock' in the Laws of Chess means one of the two time displays.
'Flag fall' means the expiry of the allotted time for a player.

6.2. When using a chess clock, each player must make a certain number or all moves in an allotted period of time; or may be allocated an additional amount of time after each move. All this must be specified in advance. The time saved by a player during one period is added to his time available for the next period, except in the 'time delay' mode.
In the time delay mode both players receive an alloted 'main thinking time'. They also receive a 'fixed extra time' for every move. The count down of the main time only commences after the fixed time has expired. Provided the player stops his clock before the expiry of the fixed time, the main thinking time does not change, irrespective of the proportion of the fixed time used.

6.3. Each time display has a 'flag'. Immediately after a flag falls, the requirements of Article 8.1 must be checked.

6.4. The arbiter decides where the chess clock is placed.

6.5. At the time determined for the start of the game the clock of the player who has the white pieces is started.

6.6. The player shall lose the game if he arrives at the chessboard more than one hour after the scheduled start of the session (unless the rules of the competition specify or the arbiter decides otherwise).

6.7. (a) During the game each player, having made his move on the chessboard, shall stop his own clock and start his opponent's clock. A player must always be allowed to stop his clock. His move is not considered to have been completed until he has done so, unless the made move ends the game. (See Articles 5.1, 5.2 and 5.3)
The time between making the move on the chessboard and stopping his own clock and starting his opponent's clock is regarded as part of the time allotted to the player.
(b) A player must stop his clock with the same hand as that with which he made his move. It is forbidden to keep the finger on the button or to 'hover' over it.
(c) The players must handle the chess clock properly. It is forbidden to punch it forcibly, to pick it up or to knock it over. Improper clock handling shall be penalised in accordance with Article 13.4.

6.8. A flag is considered to have fallen when the arbiter observes the fact or when a valid claim to that effect has been made by either player.

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6.9. Except where Articles 5.1, 5.2 and 5.3 apply, if a player does not complete the prescribed number of moves in the allotted time, the game is lost by the player. However, the game is drawn, if the position is such that the opponent cannot checkmate the player by any possible series of legal moves (i.e. by the most unskilled counterplay).

6.10. Every indication given by the clocks is considered to be conclusive in the absence of any evident defect. A chess clock with an evident defect shall be replaced. The arbiter shall use his best judgement when determining the times to be shown on the replacement chess clock.

6.11. If both flags have fallen and it is impossible to establish which flag fell first, the game shall continue.

6.12. (a) If the game needs to be interrupted, the arbiter shall stop the clocks.

(b) A player may stop the clocks in order to seek the arbiter's assistance.
(c) The arbiter shall decide when the game is to be restarted.

6.13. If an irregularity occurs and/or the pieces have to be restored to a previous position, the arbiter shall use his best judgement to determine the times to be shown on the clocks.

6.14. Screens, monitors, or demonstration boards showing the current position on the chessboard, the moves and the number of moves made, and clocks which also show the number of moves, are allowed in the playing hall. However, the player may not make a claim based on anything shown in this manner.

4.8 7: Illegal positions

7.1. (a) If during a game it is found that the initial position of the pieces was incorrect, the game shall be cancelled and a new game played.
(b) If during a game it is found that the only error is that the chessboard has been placed contrary to Article 2.1, the game continues but the position reached must be transferred to a correctly placed chessboard.

7.2. If a game has begun with colours reversed then it shall continue, unless the arbiter rules otherwise.

7.3. If a player displaces one or more pieces, he shall re-establish the correct position on his own time. If necessary the opponent has the right to restart the player's clock without making a move in order to make sure the player re-establishes the correct position on his own time.

7.4. If during a game it is found that an illegal move has been made, or that pieces have been displaced from their squares, the position before the irregularity shall be re-instated. If the position immediately before the irregularity cannot be identified the game shall continue from the last identifiable position prior to the irregularity. The clocks shall be adjusted according to Article 6.13 and, in the case of an illegal move, Article 4.3 applies to the move replacing the illegal move. The game shall then continue.

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4.9 8: The recording of the moves

8.1. In the course of play each player is required to record his own moves and those of his opponent, move after move, as clearly and legibly as possible, in the algebraic notation (Appendix E), on the scoresheet prescribed for the competition.
A player may reply to his opponent's move before recording it, if he so wishes. He must record his previous move before making another. The offer of a draw must be recorded on the scoresheet by both players.(Appendix E.12) If a player due to physical or religious reasons, is unable to keep score, an amount of time, decided by the arbiter, shall be deducted from his allotted time at the beginning of the game.

8.2. The scoresheet shall be visible to the arbiter at all times.

8.3. The scoresheets are the property of the organisers of the event.

8.4. If a player has less than five minutes left on his clock and does not have additional time of 30 seconds or more added with each move, then he is not obliged to meet the requirements of Article 8.1. Immediately after one flag has fallen the player must update his scoresheet completely.

8.5. (a) If neither player is required to keep score under Article 8.4, the arbiter or an assistant should try to be present and keep score. In this case, immediately after one flag has fallen, the arbiter shall stop the clocks. Then both players shall update their scoresheets, using the arbiter's or the opponent's scoresheet.
(b) If only one player is not required to keep score under Article 8.4, he must update his scoresheet completely as soon as a flag has fallen. Provided it is the player's move, he may use his opponent's scoresheet. The player is not permitted to move until after he has completed his own scoresheet and returned his opponent's.
(c) If no complete scoresheet is available, the players must reconstruct the game on a second chessboard under the control of the arbiter or an assistant, who shall first record the actual game position before reconstruction takes place.

8.6. If the scoresheets cannot be brought up to date showing that a player has overstepped the allotted time, the next move made shall be considered as the first of the following time period, unless there is evidence that more moves have been made.

4.10 9: The drawn game

9.1. A player can propose a draw after making a move on the chessboard. He must do so before stopping his own clock and starting his opponent's clock. An offer at any other time during play is still valid, but Article 12.5 must be considered. No conditions can be attached to the offer. In both cases the offer cannot be withdrawn and remains valid until the opponent accepts it, rejects it orally, rejects it by making a move, or the game is concluded in some other way.
The offer of a draw shall be noted by each player on his scoresheet with the symbol (=).

9.2. The game is drawn, upon a correct claim by the player having the move, when the same position, for at least the third time (not necessarily by repetition of moves)

(a) is about to appear, if he first writes his move on his scoresheet and declares to the arbiter his intention to make this move, or

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(b) has just appeared.
Positions as in (a) and (b) are considered the same, if the same player has the move, pieces of the same kind and colour occupy the same squares, and the possible moves of all the pieces of both players are the same. Positions are not the same if a pawn could have been captured en passant or if the right to castle immediately or in the future has been changed.

9.3. The game is drawn, upon a correct claim by the player having the move, if
(a) he writes on his scoresheet, and declares to the arbiter his intention to make a move which shall result in the last 50 moves having been made by each player without the movement of any pawn and without the capture of any piece, or
(b) the last 50 consecutive moves have been made by each player without the movement of any pawn and without the capture of any piece.

9.4. If the player makes a move without having claimed the draw he loses the right to claim, as in Article 9.2 or 9.3, on that move .

9.5. If a player claims a draw as in Article 9.2 or 9.3 he shall immediately stop both clocks. He is not allowed to withdraw his claim.
(a) If the claim is found to be correct the game is immediately drawn.
(b) If the claim is found to be incorrect, the arbiter shall deduct half of the claimant's remaining time up to a maximum of three minutes and add three minutes to the opponent's remaining time. Then the game shall continue and the intended move must be made.

9.6. The game is drawn when a position is reached from which a checkmate cannot occur by any possible series of legal moves, even with the most unskilled play. This immediately ends the game.

4.11 10: Quickplay Finish

10.1. A 'quickplay finish' is the last phase of a game, when all the remaining moves must be made in a limited time.

10.2. If the player has less than two minutes left on his clock, he may claim a draw before his flag falls. He shall stop the clocks and summon the arbiter.
(a) If the arbiter is satisfied the opponent is making no effort to win the game by normal means, or that it is not possible to win by normal means, then he shall declare the game drawn. Otherwise he shall postpone his decision.
(b) If the arbiter postpones his decision, the opponent may be awarded two extra minutes thinking time and the game shall continue in the presence of the arbiter.
(c) Having postponed his decision, the arbiter may subsequently declare the game drawn, even after a flag has fallen.

10.3. Illegal moves do not necessarily lose. After the action taken under Article 7.4, for a first illegal move by a player the arbiter shall give two minutes extra time to his opponent; for a second illegal move by the same player the arbiter shall give another two minutes extra time to his opponent; for a third illegal move by the same player, the arbiter shall declare the game lost by the player who played incorrectly.

10.4. If both flags have fallen and it is impossible to establish which flag fell first the game is drawn.

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4.12 11: Scoring

11.1. A player who wins his game scores one point (1), a player who loses his game scores no points (0) and a player who draws his game scores a half point (½).

4.13 12: The conduct of the players

12.1. High standards of etiquette are expected of the players.

12.2. During play the players are forbidden to make use of any notes, sources of information, advice, or to analyse on another chessboard.
The scoresheet shall be used only for recording the moves, the times of the clocks, the offer of a draw, and matters relating to a claim.

12.3. No analysis is permitted in the playing room when play is in progress, whether by players or spectators. Players who have finished their games shall be considered to be spectators.

12.4. The players are not allowed to leave the 'playing venue' without permission from the arbiter. The playing venue is defined as the playing area, rest rooms, refreshment area, area set aside for smoking and other places as designated by the arbiter. The player having the move is not allowed to leave the playing area without permission of the arbiter.

12.5. It is forbidden to distract or annoy the opponent in any manner whatsoever; this includes the persistent offer of a draw.

12.6. Infraction of any part of the Articles 12.2 to 12.5 shall lead to penalties in accordance with Article 13.4.

12.7. The game is lost by a player who persistently refuses to comply with the Laws of Chess. The opponent's score shall be decided by the arbiter.

12.8. If both players are found guilty according to Article 12.7, the game shall be declared lost by both players.

4.14 13: The role of the arbiter

13.1. The arbiter shall see that the Laws of Chess are strictly observed.

13.2. The arbiter shall act in the best interest of the competition. He should ensure that a good playing environment is maintained and that the players are not disturbed. He shall supervise the progress of the competition.

13.3. The arbiter shall observe the games, especially when the players are short of time, enforce decisions he has made and impose penalties on players where appropriate.

13.4. Penalties open to the arbiter include:
(a) a warning,
(b) increasing the remaining time of the opponent,
(c) reducing the remaining time of the offending player,

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(d) declaring the game to be lost,
(e) expulsion from the event.

13.5. The arbiter may award either or both players additional time in the event of external disturbance of the game.

13.6. The arbiter must not intervene in a game to indicate the number of moves made, except in applying Article 8.5, when at least one player has used all his time. The arbiter shall refrain from informing a player that his opponent has made a move, or that he has failed to press his clock.

13.7. Spectators and players in other games are not to speak about or otherwise interfere in a game. If necessary, the arbiter may expel offenders from the playing room.

4.15 14: FIDE

14.1. Member federations may ask FIDE* to give an official decision about problems relating to the Laws of Chess.
* FIDE = Federation Internationale D'Echecs.

4.16 A: Adjourned games

A1. (a) If a game is not finished at the end of the time prescribed for play, the arbiter shall require the player having the move to 'seal' that move. The player must write his move in unambiguous notation on his scoresheet, put his scoresheet and that of his opponent in an envelope, seal the envelope and only then stop his clock without starting the opponent's clock. Until he has stopped the clocks, the player retains the right to change his sealed move. If, after being told by the arbiter to seal his move, the player makes a move on the chessboard, he must write that same move on his scoresheet as his sealed move.
(b) A player having the move, who adjourns the game before the end of the playing session, shall be considered to have sealed at the nominal time for the end of the session.
A2. The following shall be indicated upon the envelope:
(a) the names of the players
(b) the position immediately before the sealed move
(c) the time used by each player
(d) the name of the player who has sealed the move
(e) the number of the sealed move
(f) the offer of a draw, if the proposal was made before the adjournment of the game
(g) the date, time and venue of resumption of play.
A3. The arbiter shall check the accuracy of the information on the envelope and is responsible for the safe-keeping of it.
A4. If a player proposes a draw after his opponent has sealed his move, the offer is valid until the opponent has accepted it or rejected it as in Article 9.1.
A5. Before the game is to be resumed, the position immediately before the sealed move shall be set up on the chessboard, and the times used by each player when the game was adjourned shall be indicated on the clocks.
A6. If prior to the resumption the game is agreed drawn, or if one of the players notifies the arbiter that he resigns, the game is concluded.
A7. The envelope shall be opened only when the player who must reply to the sealed

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move is present.
A8. Except in the cases mentioned in Article 6.9 and 9.6, the game is lost by a player whose recording of his sealed move
(a) is ambiguous, or
(b) is false, in such a way that its true significance is impossible to establish, or
(c) is illegal.
A9. If, at the agreed resumption time
(a) the player having to reply to the sealed move is present, the envelope is opened, the sealed move made on the chessboard and his clock started.
(b) the player having to reply to the sealed move is not present, his clock shall be started. On his arrival, he may stop his clock and summon the arbiter. The envelope is then opened and the sealed move made on the chessboard. His clock is then restarted.
(c) the player who sealed the move is not present, his opponent has the right to record his reply on the scoresheet, seal his scoresheet in a fresh envelope, stop his clock and start his opponent's clock instead of making his reply in the normal manner. If so, the envelope shall be handed to the arbiter for safe-keeping and opened on the opponent's arrival.
A10. The game is lost by the player who arrives more than one hour late for the resumption of an adjourned game. However, if the player who made the sealed move is the late player, the game is decided otherwise, if:
(a) the absent player has won the game by virtue of the fact that the sealed move is checkmate, or
(b) the absent player has produced a drawn game by virtue of the fact that the sealed move is stalemate, or a position as described in Article 9.6 has arisen on the chessboard, or
(c) the player present at the chessboard has lost the game according to Article 6.9.
A11. (a) If the envelope containing the sealed move is missing, the game shall continue from the adjourned position, with the clock times recorded at the time of adjournment. If the time used by each player cannot be re-established the clocks shall be set by the arbiter. The player who sealed the move makes the move he states he sealed on the chessboard.
(b) If it is impossible to re-establish the position, the game is annulled and a new game must be played.
A12. If, upon resumption of the game, either player points out before making his first move, that the time used has been incorrectly indicated on either clock, the error must be corrected. If the error is not then established the game continues without correction unless the arbiter feels that the consequences will be too severe.
A13. The duration of each resumption session shall be controlled by the arbiter's time piece. The starting time and finishing time shall be announced in advance.

4.17 B: Rapidplay

B1. A 'rapidplay game' is one where all the moves must be made in a fixed time between 15 to 60 minutes.

B2. Play shall be governed by the FIDE Laws of Chess, except where they are overridden by the following Laws.

B3. Players do not need to record the moves.

B4. Once each player has made three moves, no claim can be made regarding incorrect piece placement, orientation of the chessboard or clock setting.

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B5. The arbiter shall make a ruling according to Articles 4 and 10, only if requested to do so by one or both players.

B6. The flag is considered to have fallen when a valid claim to that effect has been made by a player. The arbiter shall refrain from signalling a flag fall.

B7. To claim a win on time, the claimant must stop both clocks and notify the arbiter. For the claim to be successful, the claimant's flag must remain up and his opponent's flag down after the clocks have been stopped.

B8. If both flags have fallen, the game is drawn.

4.18 C: Blitz

C1. A 'blitz game' is one where all the moves must be made in a fixed time less than 15 minutes.

C2. Play shall be governed by the Rapidplay Laws as in Appendix B except where they are overridden by the following Laws.

C3. An illegal move is completed once the opponent's clock has been started. The opponent is then entitled to claim a win before making his own move. Once the opponent has made his own move, an illegal move cannot be corrected.

C4. In order to win, a player must have 'mating potential'. This is defined as adequate forces eventually to produce a position legally, possibly by 'helpmate', where an opponent having the move cannot avoid being checkmated in one move. Thus two knights and a king against a lone king is insufficient, but a rook and king against a knight and king is sufficient.

C5. Article 10.2 does not apply.

4.19 D: Quickplay finishes with no arbiter

D1. Where games are played as in Article 10, a player may claim a draw when he has less than two minutes left on his clock and before his flag falls. This concludes the game. He may claim on the basis
(a) that his opponent cannot win by normal means, or
(b) that his opponent has been making no effort to win by normal means.
In (a) the player must write down the final position and his opponent verify it.
In (b) the player must write down the final position and submit an up-to-date scoresheet which must be completed before play has ceased. The opponent shall verify both the scoresheet and the final position.
The claim shall be referred to an arbiter whose decision shall be final.

4.20 E: Algebraic notation

Description of the Algebraic System

E1. Each piece is indicated by the first letter, a capital letter, of its name. Example: K = king, Q = queen, R = rook, B = bishop, N = knight. (In the case of the knight, for the

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sake of convenience, N is used.)

E2. For the first letter of the name of a piece, each player is free to use the first letter of the name which is commonly used in his country. Examples: F = fou (French for bishop), L = loper (Dutch for bishop). In printed periodicals, the use of figurines for the pieces is recommended.

E3. Pawns are not indicated by their first letter, but are recognized by the absence of such a letter. Examples: e5, d4, a5.

E4. The eight files (from left to right for White and from right to left for Black) are indicated by the small letters, a, b, c, d, e, f, g and h, respectively.

E5. The eight ranks (from bottom to top for White and from top to bottom for Black) are numbered 1, 2, 3, 4, 5, 6, 7 and 8, respectively. Consequently, in the initial position the white pieces and pawns are placed on the first and second ranks; the black pieces and pawns on the eighth and seventh ranks.

E6. As a consequence of the previous rules, each of the sixty four squares is invariably indicated by a unique combination of a letter and a number.

E7. Each move of a piece is indicated by (a) the first letter of the name of the piece in question and (b) the square of arrival. There is no hyphen between (a) and (b). Examples: Be5, Nf3, Rd1. In the case of pawns, only the square of arrival is indicated. Examples: e5, d4, a5.

E8. When a piece makes a capture, an x is inserted between

(a) the first letter of the name of the piece in question and
(b) the square of arrival.
Examples: Bxe5, Nxf3, Rxd1.
When a pawn makes a capture, not only the square of arrival but also the file of departure must be indicated, followed by an x. Examples: dxe5, gxf3, axb5. In the case of an "en passant" capture, the square of arrival is given as the square on which the capturing pawn finally rests and "e.p." is appended to the notation.

E9. If two identical pieces can move to the same square, the piece that is moved is indicated as follows:
(1) If both pieces are on the same rank: by
(a) the first letter of the name of the piece,
(b) the rank of the square of departure, and
(c) the square of arrival.
(2) If both pieces are on the same file: by
(a) the first letter of the name of the piece,
(b) the rank of the square of departure, and
(c) the square of arrival.
(3) If the pieces are on different ranks and files, method (1) is preferred. In the case of capture, an x must be inserted between (b) and (c).
Examples:
(1) There are two knights, on the squares g1 and d2, and one of them moves to the square f3: either Ngf3 or Ndf3, as the case may be.
(2) There are two knights, on the squares g5 and g1, and one of them moves to the square f3: either N5f3 or N1f3, as the case may be.

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(3) There are two knights, on the squares h2 and d4, and one of them moves to the square f3: either Nhf3 or Ndf3, as the case may be.
If a capture takes place on the square f3, the previous examples are changed by the insertion of an x:
(1) either Ngxf3 or Ndxf3,
(2) either N5xf3 or N1xf3,
(3) either Nhxf3 or Ndxf3, as the case may be.

E10. If two pawns can capture the same piece or pawn of the opponent, the pawn that is moved is indicated by
(a) the letter of the file of departure,
(b) an x,
(c) the square of arrival.
Example: If there are white pawns on squares c4 and e4 and a black pawn or piece on the square d5, the notation for White's move is either cxd5 or exd5, as the case may be.

E11. In the case of the promotion of a pawn, the actual pawn move is indicated, followed immediately by the first letter of the new piece. Examples: d8Q, f8N, b1B, g1R.
Essential Abbreviations:
0-0 : castling with rook h1 or rook h8 (kingside castling)
0-0-0 : castling with rook a1 or rook a8 (queenside castling)
x : captures
+ : check
++ : checkmate
e.p. : captures "en passant"
Sample game: 1.d4 Nf6 2.c4 e6 3.Nc3 Bb4 4.Bd2 0-0 5.e4 d5 6.exd5 exd5 7.cxd5 Bxc3 8.Bxc3 Nxd5 9.Nf3 b6 10.Qb3 Nxc3 11.bxc3 c5 12.Be2 cxd4 13.Nxd4 Re8 14.0-0 Nd7 15.a4 Nc5 16.Qb4 Bb7 17.a5 ... etc.

E12. The offer of a draw shall be marked as (=).

4.21 F: Visually handicapped players

These rules are to be applied as a supplement to FIDE Rules to accomodate the needs of the visually impaired in competitive games between visually impaired and sighted players, and between visually handicapped players.

Tournament directors shall have the power to adapt the following rules according to local circumstances. In competitive chess between sighted and visually handicapped players (legally blind) either player may demand the use of two boards, the sighted player using a normal board, the visually handicapped player using one specially constructed.

The specially constructed board must meet the following requirements:

(a) At least twenty centimeters by twenty centimeters;
(b) The black squares slightly raised;
(c) A securing aperture in each square;
(d) Every piece provided with a peg that fits into the securing aperture;
(e) Pieces of Staunton design, the black pieces being specially marked.

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GENERAL RULES

1. The moves shall be announced clearly, repeated by the opponent, and executed on his board. To make the announcement as clear as possible, the use of the following names are suggested instead of the corresponding letters, the algebraic notation to be used:
A~Anna B~Belia C~Ceasar D~David
E~Eva F~Felix G~Gustav H~Hector
Ranks from white to black receive the German numbers:
1~Eins 2~Zwei 3~Drei 4~Vier
5~Fuenf 6~Sechs 7~Sieben 8~Acht
Castling is announced "Lange Rochade" (German for long castling) and "Kurtze Rochade" (German for short castling).
The pieces bear the names: Koenig, Dame, Turm, Laeufer, Springer, Bauer.
When promoting a pawn the player must announce which piece is chosen.
2. On the visually handicapped player's board a piece shall be considered "touched" when it has been taken out of the securing aperture.
3. A move shall be considered "executed" when:
(a) In the case of capture, the captured piece has been removed from the board of the player whose turn it is to move;
(b) A piece is placed into a different securing aperture;
(c) The move has been announced.
Only then shall the opponent's clock be started.
As far as points 2 and 3 are concerned the normal rules are valid for the sighted player.
4. A specially constructed chess clock for the visually handicapped shall be admissible. It shall incorporate the following features:
(a) A dial fitted with reinforced hands, with every five minutes marked with one dot, and every fifteen minutes by two raised dots.
(b) A flag that can be easily felt. Care should be taken that the flag is so arranged as to allow the player to feel the minute hand during the last five minutes of the full hour.
5. The visually handicapped player must keep score of the game in Braille, or longhand, or record the moves on a tape recorder.
6. A slip of the tongue in the announcement of a move must be corrected immediately and before the clock of the opponent is started.
7. If during a game different positions arise on the two boards, they must be corrected with the assistance of the controller, and by consulting both players' game scores. If the two game scores correspond with each other, the player who has written the correct move, but executed the wrong one, must adjust his position to correspond with the move on the game scores.
8. If, when such differences occur and the game scores are found to differ, the moves shall be retracted to the point where the two scores agree, and the controller shall readjust the clocks accordingly.
9. The visually handicapped player shall have the right to make use of an assistant who shall have any or all of the following duties:
(a) Make either player's move on the board of the opponent.
(b) Announce the moves of both players.
(c) Keep the game score of the visually handicapped player and start his opponent's clock (Note Rule 3.c).
(d) Inform the visually handicapped player, only at his request, of the number of moves completed, and the time used up by both players.
(e) Claim the game in cases where the time limit has been exceeded and inform the controller when the sighted player has touched one of his pieces.

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(f) Carry out the necessary formalities in case the game is adjourned.
10. If the visually handicapped player does not make use of an assistant, the sighted player may make use of one who shall carry out the duties mentioned under points (9. a) and (9.b).
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Index

- " -

"Notation 66

- 3 -

3D board 40, 45, 46
3D board – settings 44
3D board problems 382
3D Boards in Fritz 17 47
3D boards with Direct X 11 43
3D GPU Hardware raytracing (DX12) 55
3D Raytraced board 48

- A -

A tip for Full analysis 226
Activation problems 384
Adjust thinking time 58
Admin Tool 384
Advanced Engine settings 342
Alternative piece designs 392
Analysing several games 220
Analysis 227
Archive database 208
Assisted Analysis 120
Assisted Calculation 306
Attack, Check, Defence Training 313
Autosave database 200

- B -

Backup database 209
Benchmark 373
Bid Dialog 302
Blindfold play 309
Blitz & train on Playchess.com 235
Blitzgame 129
Blundercheck 229
Board design 40
Board window with provided engine 273

- C -

Calculating Elo ratings retrospectively 246
Calculation Training 304
Can a text commentary be edited or deleted? 268
Can Let's Check be used anonymously? 266
Can senseless moves be input and analysed? 267
Can variations and evaluations be manipulated? 266
Chatter window 88
Chess 960 144
Chess Benchmark 373
Chess clocks 82
Chess coach 109
Chess films 330
Chess Media System 332
Chess notation 73
Chess problems - mate search 245
Chess rules 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 408
Chess training with Theme Blitz 390
ChessBase 212
Clear notation with coloured highlights 75
Clearing hashtables 349
Clipboard 64
Clocks 82, 206
Cloud Engine Match 292
Cloud Engines on Let`s Check 291
Cloud Engines on Playchess.com 288
Coloured highlights in the repertoire 165
Columns List windows 182
Commentaries in the LiveBook 258
Commentary symbols 322
Commentary symbols in the Fritz Blunder search 231
Commentator Index 186
Connect hardware 395
connection window Engine Cloud 275
Contempt 360
Contributing an engine 262
Copy openings book to hard disk 154
Copy tree to hard disk not available 381
Copying Games 198
Correct promotion! 389
Correcting notation 76

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Customize keyboard 106

- D -

Database 190
Database Browser 178
Database search – watch out for small or capital letters 387
Database text 210
Database window 175, 190
Deactivation 11
Deep Analysis 256
Deep position analysis 227
Delete Training Results 318
Deleting a game from the Book 158
DGT Rabbit Plugin 381
Different displays in the engine window 74
different versions 339
display of the balance of material 78
Displaying thinking time 387
Docking Windows 32
Ducats 303
Dynamic Hints 117

- E -

Easy Game 131
Edit and annotate game 99, 319
Elements of commentary 324
Elo list 378, 379
End Game Table Base support 364
Endgame databases 365, 372
Endgame Training 312, 316
Engine Cloud Autoplayer 275
Engine evaluations beside the chess board 114
Engine Interface 374
Engine management 349
Engine parameters 340
Engine parameters Housini Engine 360
Engine tournaments 353
Engine window 83
Engine/Game Correlation 255
Engines 83, 334, 340, 343, 350
Enter & Analyse 213
Entering moves on the keyboard 96, 104
Entering moves with single click 92
Evaluation of the position 218
Evaulation Profile 87
Expected move 359
Explain all moves 112
Exporting a game 328
Extend training database 317
Extended Book Display 149
Extended Engine Information 218
Extended Options in the Engine Window 365
Extending the openings book manually 156
Extending your repertoire 163

- F -

Fat Fritz Engine 336
Fees Engine Cloud 283
FiftyMoveDistance 360
Find and test Talk 62
Find position 202, 207
Fine-tuning openings books 391
Fischer Chess 144
Font problems 73
Free Drill 173
Friend mode 135
Fritz 17 engine 336
Fritz Coach 109
Full analysis / Tactical Analysis 220

- G -

Game analysis with Let's Check 263
Game Titel 189
game’s Hotness 113
Games 20, 130, 141, 190, 200, 201
Games list 179
Gaviota Endgame Databases 365
Graphic commentary 327
Graphic info 46

- H -

Hard Probe Depth 360
Hash File 360
Hash tables 347
Help and coaching 24, 107
Hint 110

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Honours Lists 264
How are the Let's Check honours lists created? 267
How do I upgrade my program ? 384
How should a game be analysed with Let's Check? 253
How to deinstall an UCI Engine 346
How to register with Fritz15 or CB14 376
HTML 328

- I -

Import old book 154
Importing games to the openings book 155
Infinite analysis 213
Infinite Analysis with a Cloudengine 295
Infoboards in the LiveBook 248
Information about the ChessBase Account 376
Information in the Chat window 256
Is my analysis always sent to Let's Check? 265

- K -

Keyboard input for commentary symbols 104
Kibitzer 86, 126, 241

- L -

Language 68
Let`s Check Start 250
Let's Check context menu 255
Let's check description 246
Let's Check Server Statistics 255
Letters on the board ? 383
Levels of skill 25, 128
Like or Don't Like in LiveBook 258
Likes 264
List View Engine Cloud 269
List views 183
LiveBook 248
Login 19
Long (tournament) games 25, 128, 130

- M -

Mate Search 360
Mate Training 315
Mate-O-Meter 113
Maximum size of the tree of positions 159
Measurements during a game 113
Medals 324
Memorising opening variations 171
miniature boards LiveBook 248
Monte Carlo 239
Mouse 116
Mouse wheel 97
Mouse wheel not working? 98
Move indicator 127
Move Input 93
My Moves 162

- N -

Nalimov 365, 372
Networked Analysis 262
New board sounds 47
Notation 73
Notation in high quality 382
Notes for the providers of public engines 279
Notes on rated games 390

- O -

Offering a public Cloud Engine 279
Opening Classification 118
Opening Training 160
Openings book 145, 157
Openings display 89
Openings training 145, 311
Optimise playing strength 145
Optimising move entry 386
Options 60, 61, 62, 64
Options – Clipboard 64
Options – Design 66
Options – Tablebases/Version 69
Options – Training 66
Options Book display 150
Options Engine 70
Owerview Settings Providers 297

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- P -

Pane Icons 36, 90
Player Index 184
Players database 199
Playing 20
Playing a Friend Game 139
Playing games 290
Position Learning 360
Position setup 27, 101
Position tutor 114
Preview window 178
Probing Frequency 364
Problems in the display of the list window? 382
Process test set 356
Producing opening references 393
Program Activation 11
Providers of Cloud Engines 287
Public Cloud Engines 276

- R -

Rated games 141
Rating List Engine Cloud 303
Recent Databases 175
Reference database 383
Renting of a Cloud Engine for a fixed price 283
Renting of a Cloud Engine with an auction 283
Repertoire deletion 175
Replace Game 194
Ribbons 29
right mouse button 96
Rookie 111

- S -

Save and load layouts 59
Save Game 192
Save Mask Annotators/Team 197
Saving games 194
ScorpioCache 360
ScorpioPath 360
Search booster 207
Search for game commentary 204
Search for medals 205
Search for names, tournaments, etc. 201
Search for Time Controls 206
Server Engine-Cloud.com 268
Set Move Number 103
Set UCI Priority 346
Setting Cloud Engine 297
Settings 50, 343
Settings Hardware Configuration Cloud 298
Settings Ignored Users 301
Settings Private Users 301
Settings Revenue 299
Shared Analysis 237
Shootout 233
Show Plans 242
Simple games 131
Slider 37
Smart CPU usage 342
Soft Probe Depth (for Gaviota or Scorpio) 360
Solve Test Sets with Cloudengines 294
Sorting by columns 182
Spoken comments via microphone 332
Standard layouts 35
Standard Repertoires 168
Start 10
Startscreen 374
Suggestion 110
Summary 338
Switch off engine 343
Symbol Palette 322
System requirements 13
Syzygy EGTB 369
Syzygy Endgame Turbo 372
Syzygy table bases 360

- T -

Team Index 187
Test set 356
Text commentary 321
The “OpenCL” version 338
The Analysis board 242
The evaluation display in Fat Fritz 339
The move list 394
The starting screen 14
Thematic chess 316
Theme Blitz 316

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Theme Keys 189
Threat 126
Time control 129
Time difference 82
Toolbar in the notation 328
Tournament Index 185
Tournament move 79, 147, 153
Training 24, 66, 107, 311, 312, 317
Training questions 237

- U -

UCI Engines 344
Use of Cloud Engines Hints 286
User Info 70
User Information 256
user license of the software 297
Using a Cloud Engine privately 275
Using the LiveBook as the Openings Book 260

- V -

Value of the pieces 26
Variation board 244
various symbols to the left of the engine's name 269
Viewing your opening repertoire 173
Visualize Search 242

- W -

What difference does the power of my computer make? 266
What do the two diagrams in the LiveBook window mean? 267
What does Let`s Check cost? 266
What engines are allowed? 266
Which Hash Size? 385
Why does the progress bar often jump back after reaching 100%? 254
Window Pane Icons 36, 90
Windows 71
Windows Vista 374
Working with a repertoire 167

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