



Houdini 3

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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

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

1.2 Playing a game

After you install the program it is automatically set to play games against you. So you can immediately start entering moves.

Menu File New game



The pieces 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.



Help

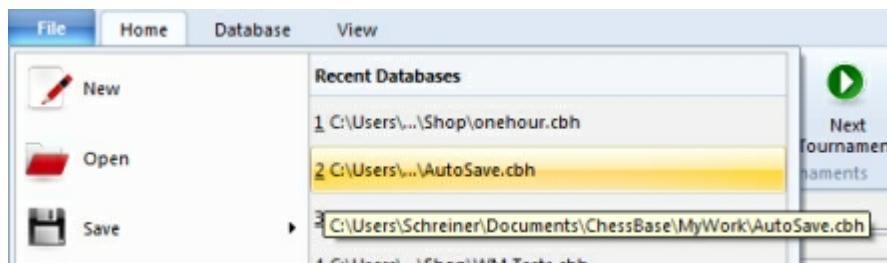
This program is a tough cookie, even for strong grandmasters. You will probably want to use some of the chess help available during the game. You should also try the special Friend mode, in which the program tries to play at exactly your level of skill. If you really want to destroy the program, you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



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 *MyInternetGames*.

1.3 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.
Threatened squares	Displays attacked and threatened squares in colour
Spy	Shows the plan or threat automatically with a coloured arrow
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	Possibilities for attack and defence manoeuvres are shown for every square when you move the mouse cursor over it
Opening Hints	If this option is selected, the program uses green arrows to show the most important opening moves
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

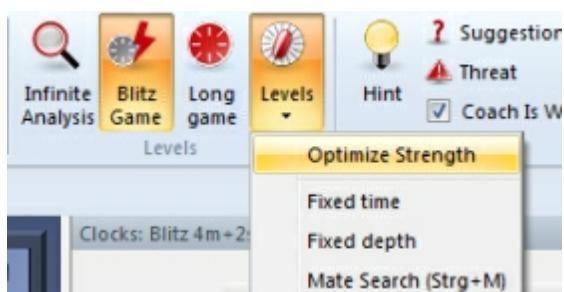
Every position that has been analysed by anyone at any time is voluntarily saved on a server.

1.4 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.



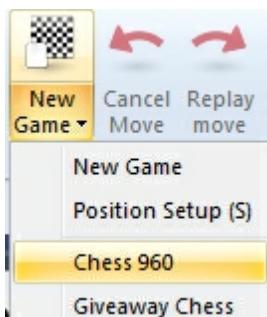
Reduced playing strength levels

- ▶ Friend mode
- ▶ Sparring
- ▶ Handicap and fun

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

- ▶ Giveaway 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.

1.5 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
Pawn	1.0
Knight	3.0
Bishop	3.0
Rook	5.0

Queen 9.0

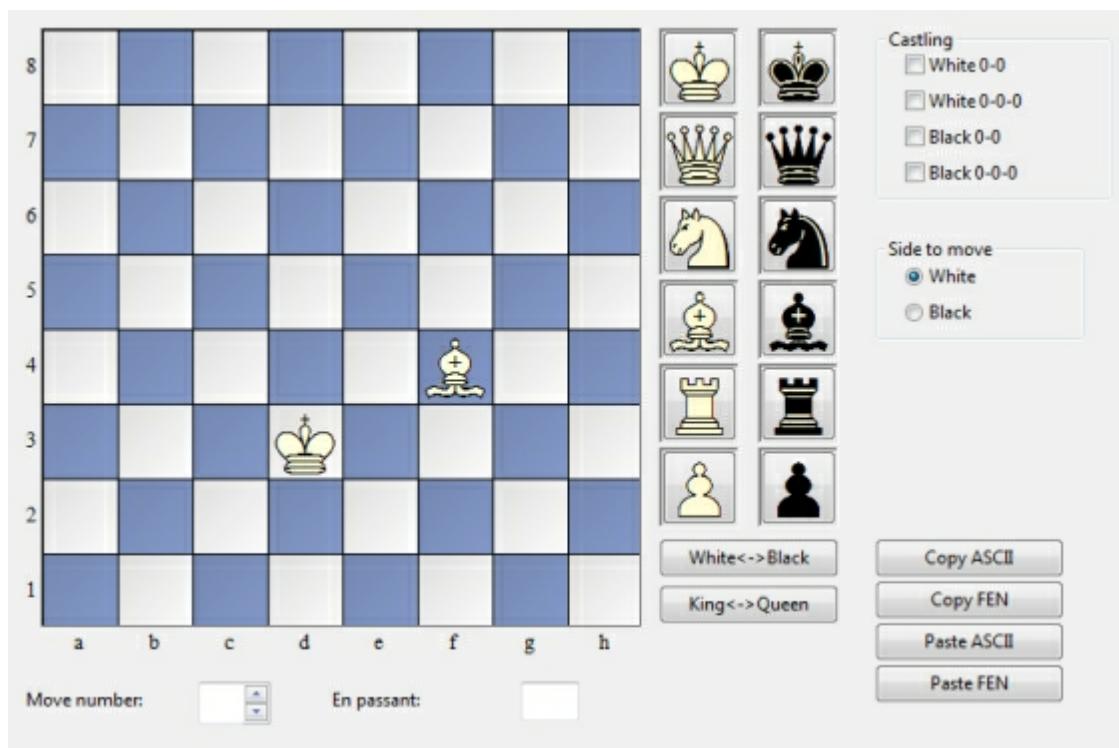
The program give its positional evaluation in pawn units, always from the point of view of White. If the program is displaying a value of +1.30 this means that it considers the white position to be better by the equivalent of 1.3 pawns. If White is actually a pawn up then the additional 0.3 is the result 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.

1.6 Position setup

Insert Position setup



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



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

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 position in two ways:

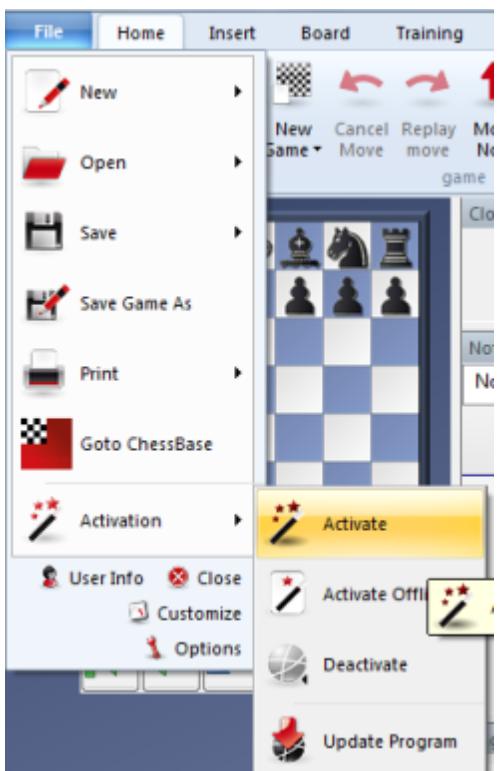
- ▶ White <-> Black mirrors the position vertically, i.e. between white and black, and changes the side to move.
- ▶ King <-> Queen mirrors the position horizontally, so that the pieces on the left are moved to the right and those on the right to the left.

2 General operation

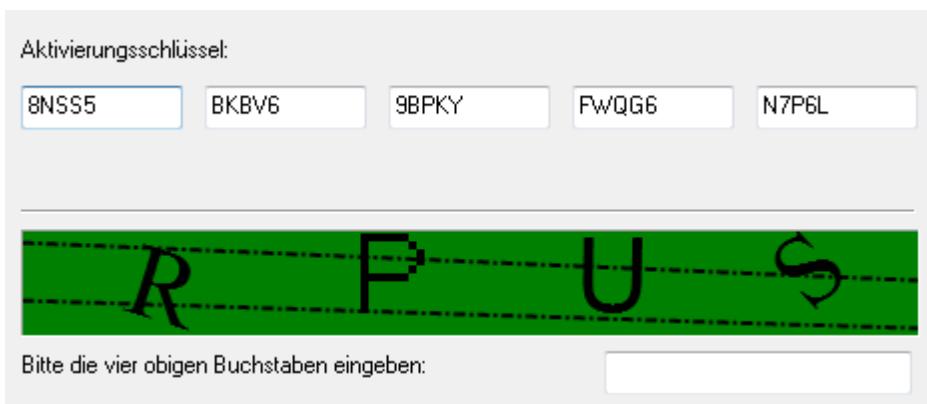
2.1 Program Activation

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**.



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 activating 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.

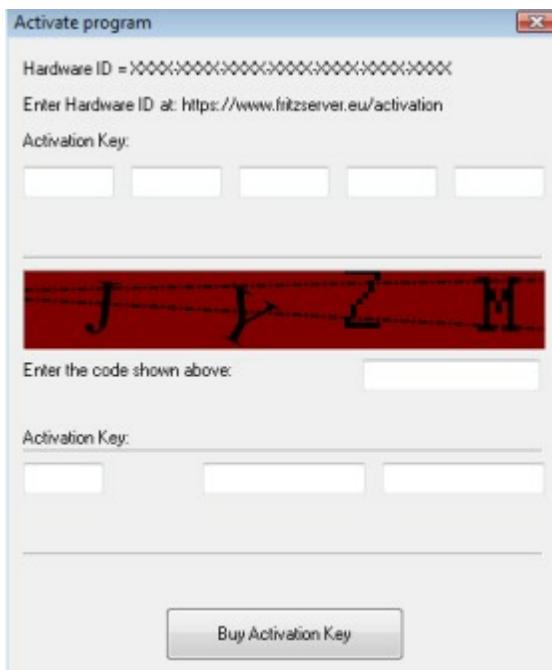
Note: If you make significant changes to your computer's system configuration you must also deactivate the program and activate it again.

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 Houdini and select the option „Activate Offline“ from the user menu.

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



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 Houdini serial number for one account on Playchess.com. Enter it under *Account - Enter Serial number* and get one year of basic access.

2.2 Ribbons

The program offers a completely new 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.

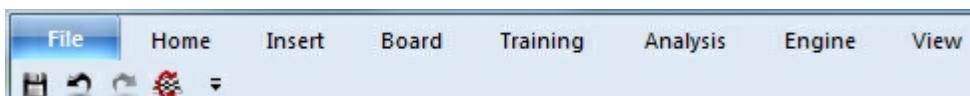


This means the end of the days in which users had to click through levels of menus and submenus to find functions. Instead of this simple icons are displayed for the program functions depending on the context the program is currently in. In the window's header words are listed – just as in traditional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

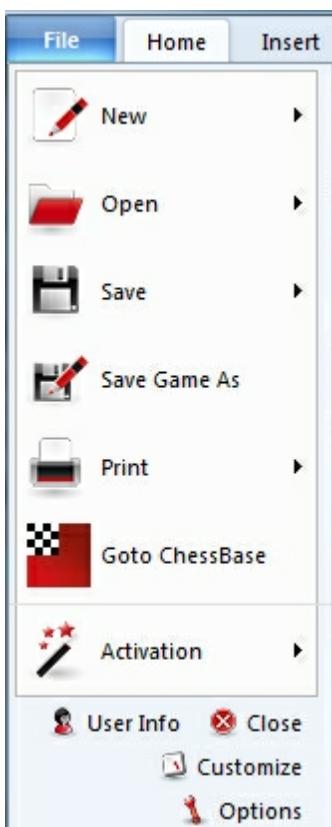


The ribbon takes up more room on the screen than the classical combination of menus and icons. The symbols are grouped within the ribbon depending on the monitor's resolution and the size of the window. Since additional commands can be added to the ribbons it is rarely necessary to use dialog boxes.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



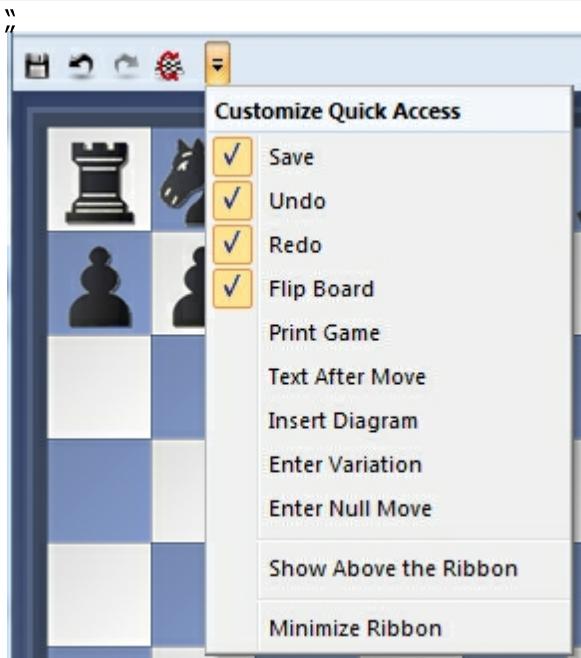
This leaves the command words on the screen, but removes the icon list until they are clicked.

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.



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.

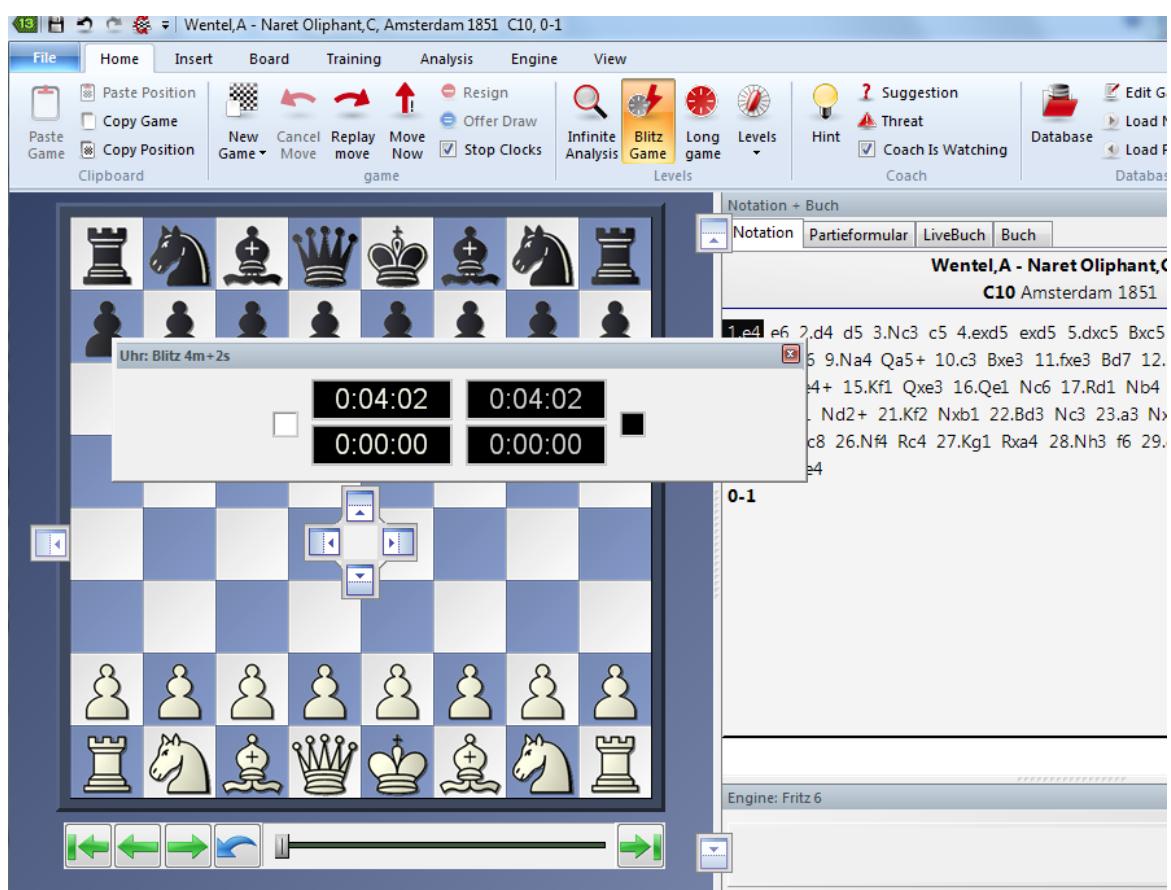


This example shows the selection of the different 3D views. Clicking on the small arrow opens a submenu with additional functions.

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.

2.3 Docking Windows

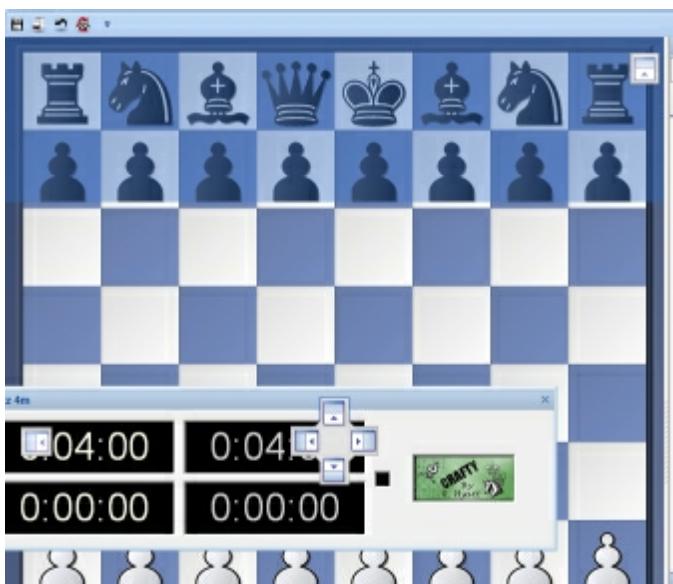
The program now offers a new way of docking and undocking windows more intuitively. To do this click on the handle (the top bar) of a pane and hold the mouse key while dragging it round the window. This undocks the window. In the following example the clock has been positioned directly above the board.



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.

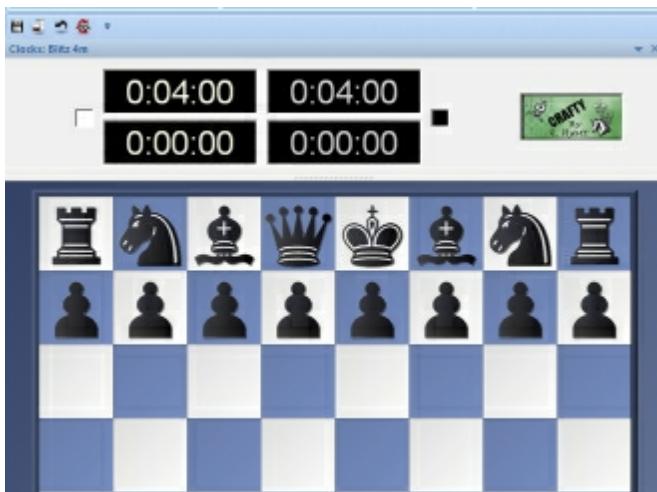


To dock a window move the mouse over the shaded part of a button while keeping the mouse button held. This will display the new position of the window before releasing the mouse button.



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.

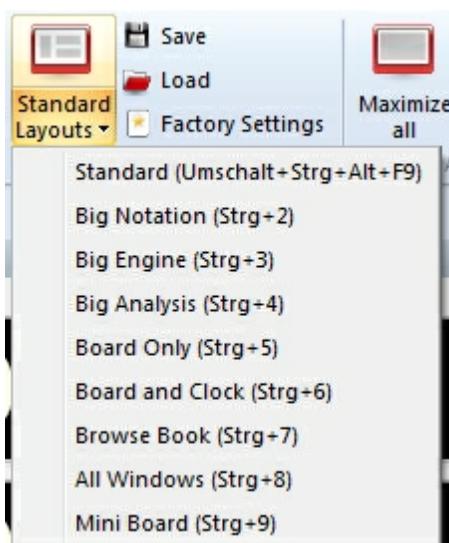
This places the clock in the exact position which was shaded.



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.

2.4 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 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.

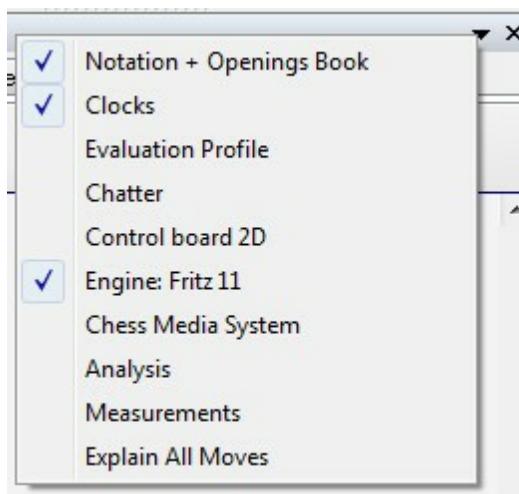
2.5 Window Pane Icons

The program has additional icons for the important window panes.



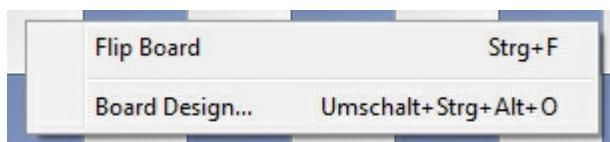
Clicking on the **X symbol** closes the window.

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.

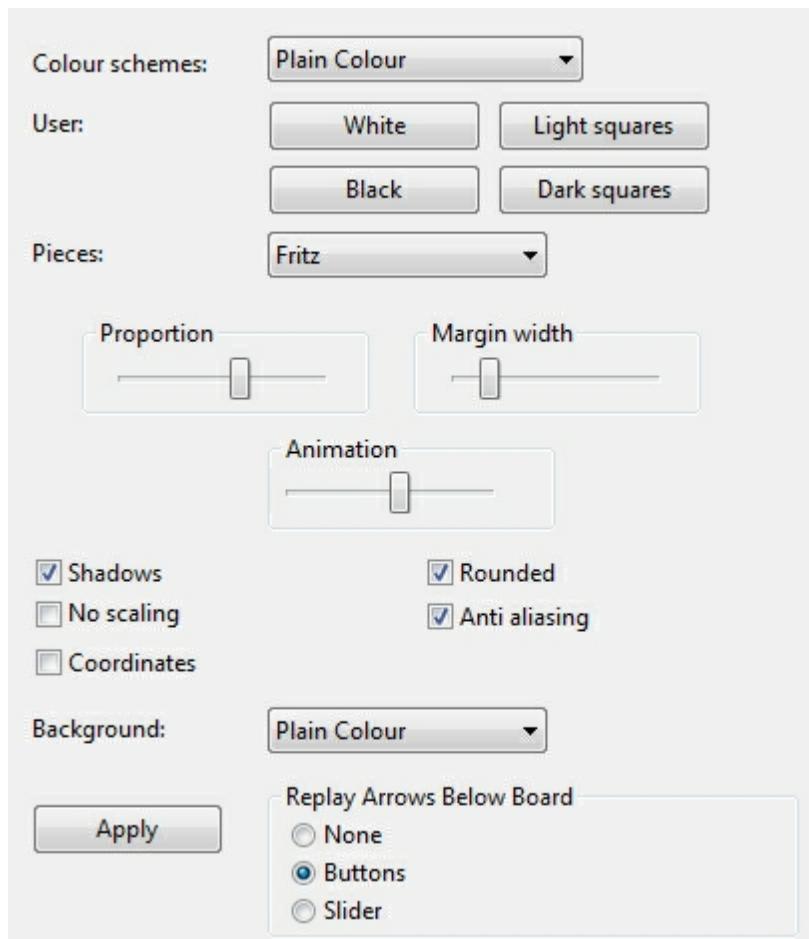


2.6 Board design – 2D board

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.

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).

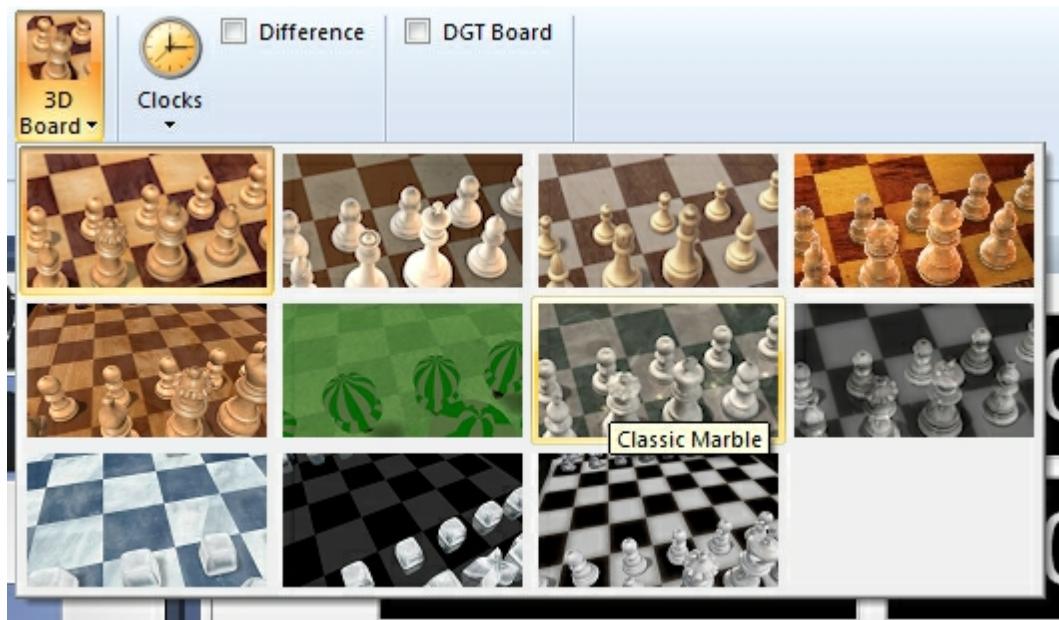
Navigating games with the slider

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 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**.

2.7 Board design – 3D

View Board 3D

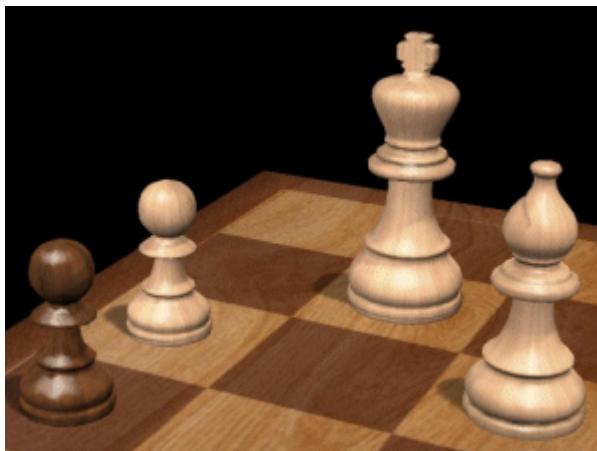




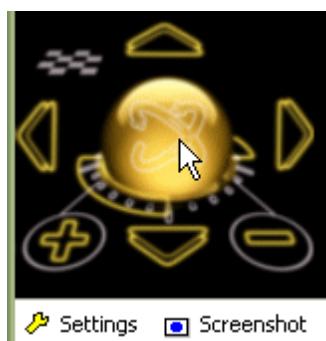
This switches to a photo-realistic three-dimensional chessboard. The high-resolution textured virtual reality board requires DirectX 9.0 or higher and a graphic accelerator.



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.



- ▶ 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.

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.



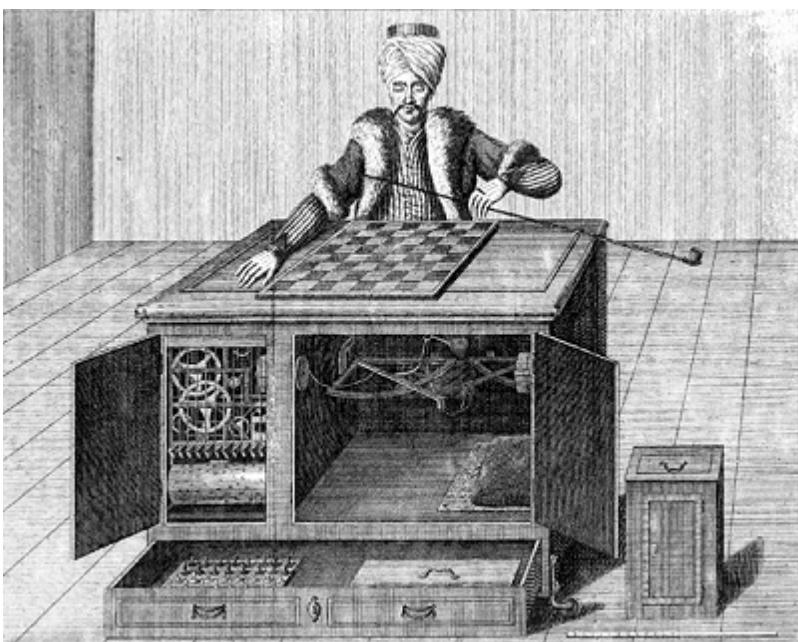
Here is a short description of what some of the main categories are. Note that you may find additional boards in your Settings dialog, especially after major updates.

- ▶ 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.

► 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).



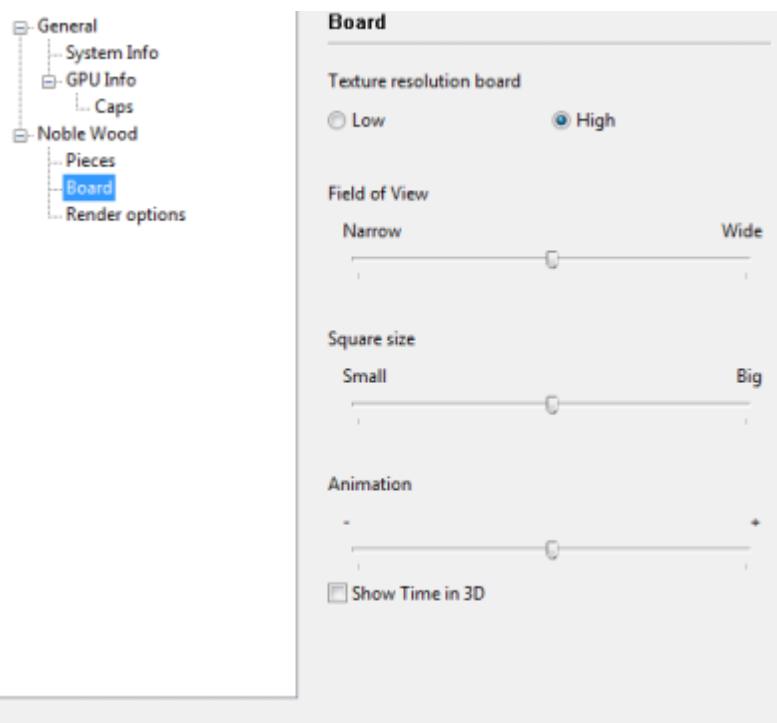
Contemporary copper engraving of von Kempelen's Turk

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.

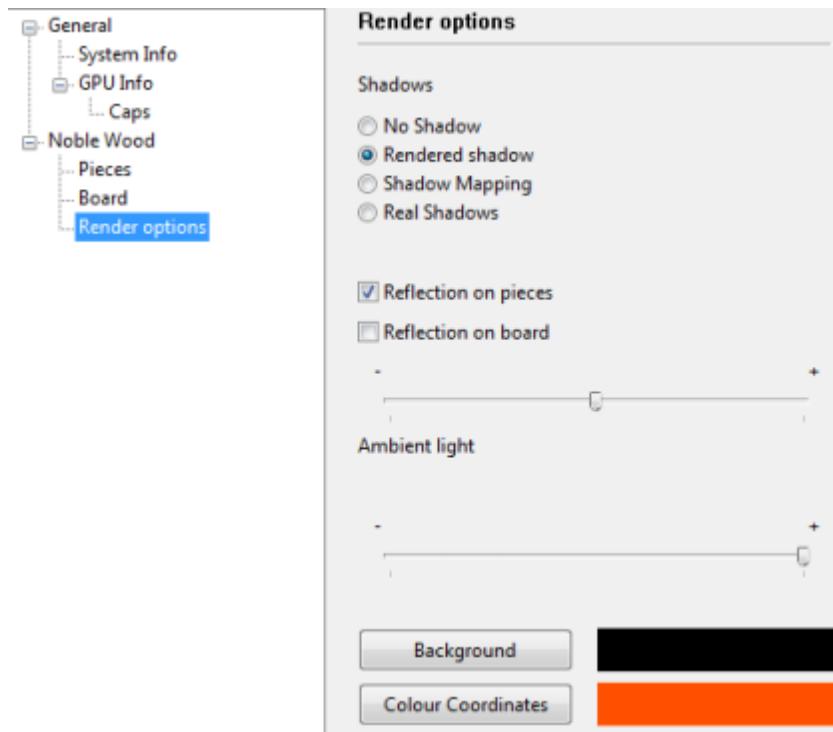


Show Time in 3D – This option in the "Board" settings displays a 3D clock below the front edge of the board.

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

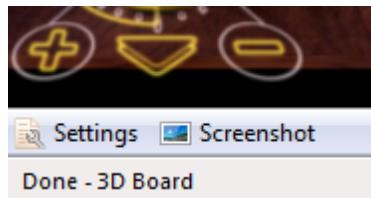
3D Settings Render Options



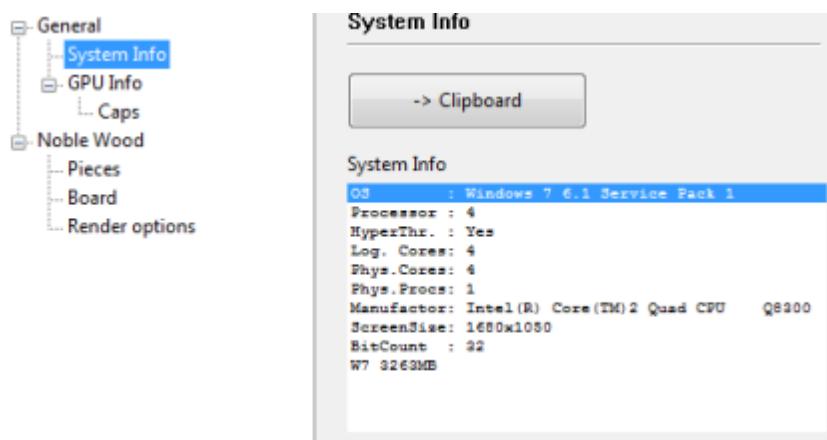
Here you can change a number of general 3D effects. You can switch piece shadows on or off, make them rendered or calculated in real time. You can also switch on reflections on the pieces or on the board. Experiment with these settings to get a really nice display. The final quality is dependent on the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



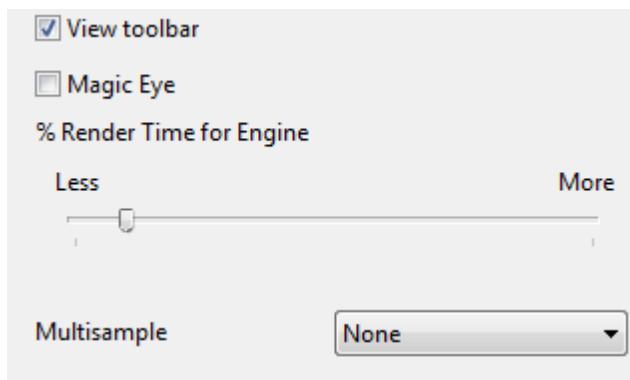
-> Clipboard will copy the values to the Windows clipboard so you can paste it into other applications (e.g. a word processor or email client). It is important that you send this in to ChessBase technical support in case you have problems with the 3D functions. The support address is info@chessbase.com.

2.12 Adjust thinking time

Houdini'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.

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.

2.13 Save and load layouts

Menu View Save layout / Load layout

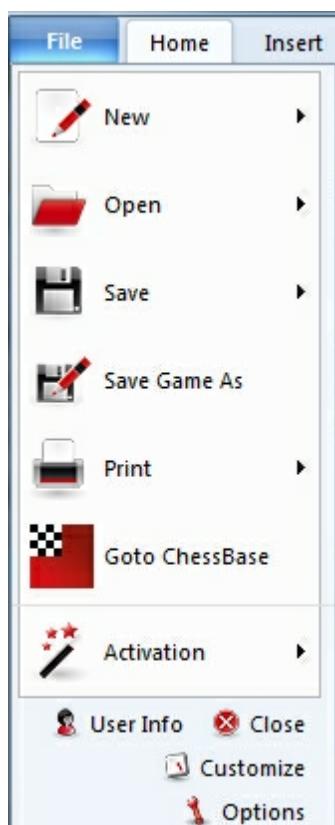


If you have created your own ideal layout, you can save it and load it again later. Enter a name for the layout when the save box appears. You can save as many layouts as you want.

2.14 Options

2.14.1 Options – Clocks and Notation

Menu File Options Clocks and Notation

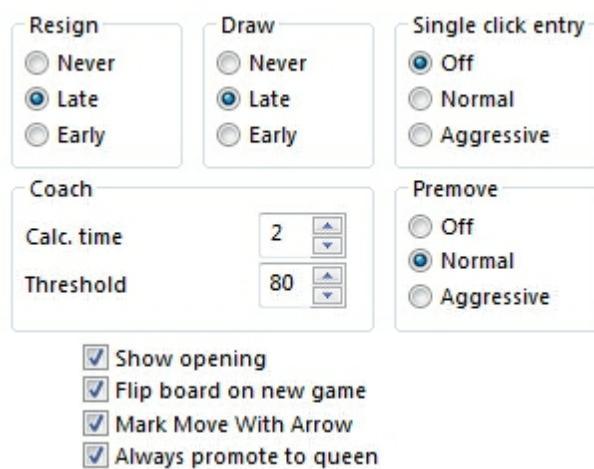


Tablebases GUI		Tablebases Engine		Version
Design	Clocks+Notation	Language	Multimedia	Clipboard
Game	Training	Engine		
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> Clocks <ul style="list-style-type: none"> <input type="radio"/> Digital <input type="radio"/> Analog <input checked="" type="radio"/> Double digital <ul style="list-style-type: none"> <input type="checkbox"/> Time difference <input checked="" type="checkbox"/> Logo in Clock </div> <div style="width: 45%;"> Notation <ul style="list-style-type: none"> <input type="radio"/> Figurines <input checked="" type="radio"/> 1.d4 <input type="radio"/> KQNBRP <input type="radio"/> 1.d2-d4 <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Store thinking time <input type="checkbox"/> Store evaluations <input type="checkbox"/> Store expected moves </div> </div>				

- **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 / KQNBKP:** 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 a beginner when you install the program. In short algebraic the start square is not given if the move is unambiguous.
- **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.

2.14.2 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 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 openings: 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.

2.14.3 Options – Multimedia

Menu File Options Multimedia

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



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

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

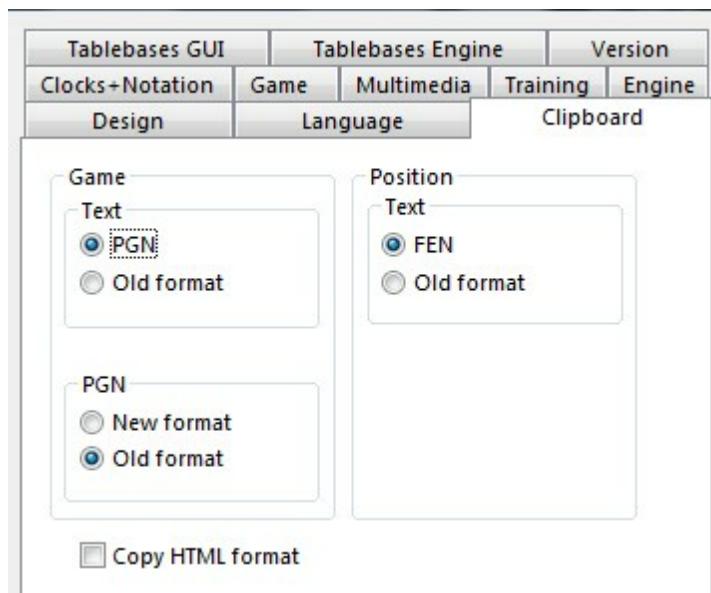
The "Talk" files consist of spoken remarks the program uses during the game. They are normally run from the CD. If you have enough hard disk space you can copy them there, using the following procedure:

- 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.

2.14.4 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 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)} 1-0
```

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 formats 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.

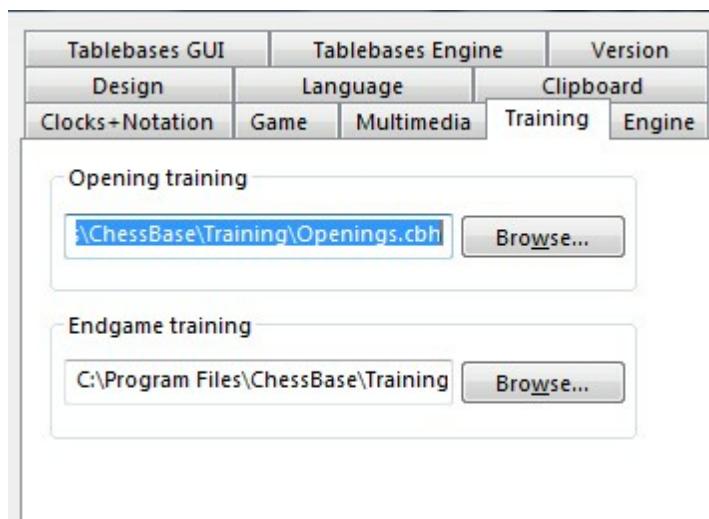
Below you can see what the HTML code looks like in the clipboard. The background colour is a pale yellow, the game header is in headline size three, and the moves are in

a separate paragraph without line breaks. The output should look very nice

```
<HTML>
<HEAD>
<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>
```

2.14.5 Options – Training

Menu File Options Training



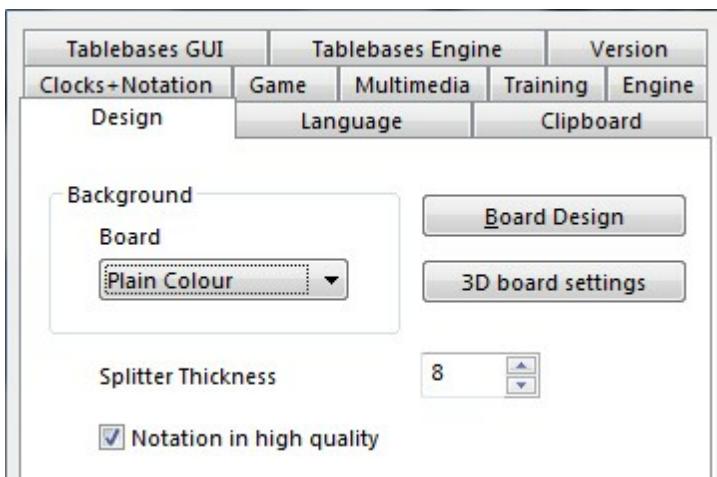
You can create your own databases for the openings and endgame training. These can be stored anywhere on your hard disk. But you must tell the program where they are.

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

2.14.6 Options – Design

Menu File Options Design

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



- ▶ **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.

2.14.7 Options – Language

Menu File Options Language

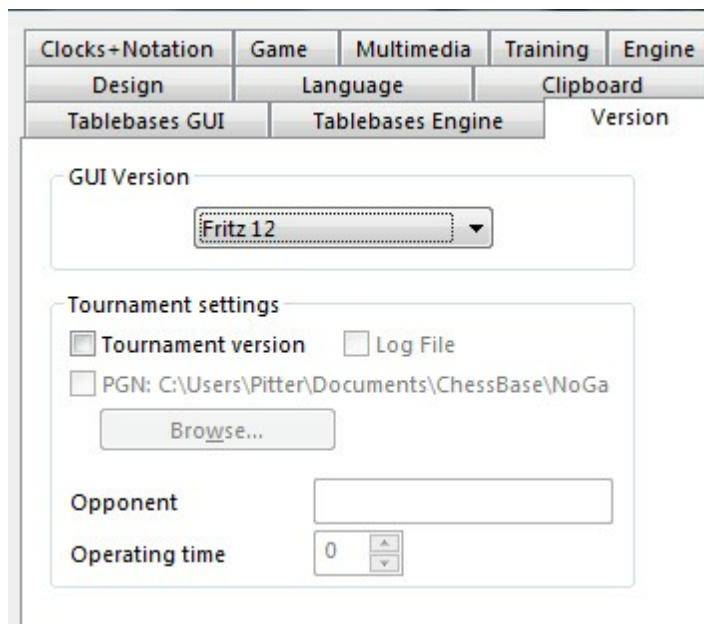


You can set the language you want for the program, and for game commentary (when you enter text commentary you can specify in which language you are annotating the game).

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.

2.14.8 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.

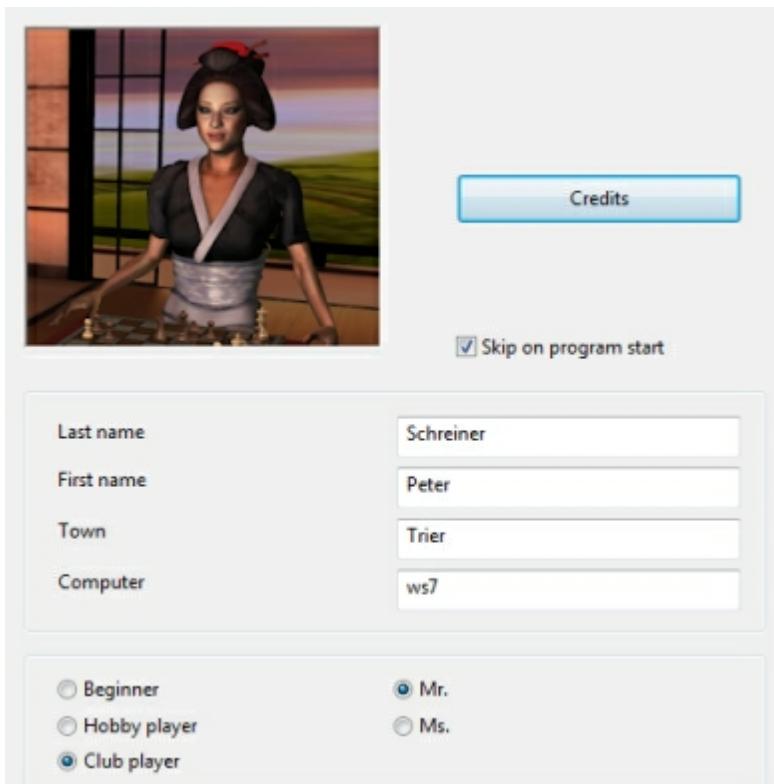
Log file: this causes the program to keep a log file of the game, so that everything can be checked meticulously after an important tournament games. The file can be printed out and given to the arbiter.

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).

2.14.9 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.

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.

2.14.10 Visualize Search

Menu File - Options - Engine Visualize Search

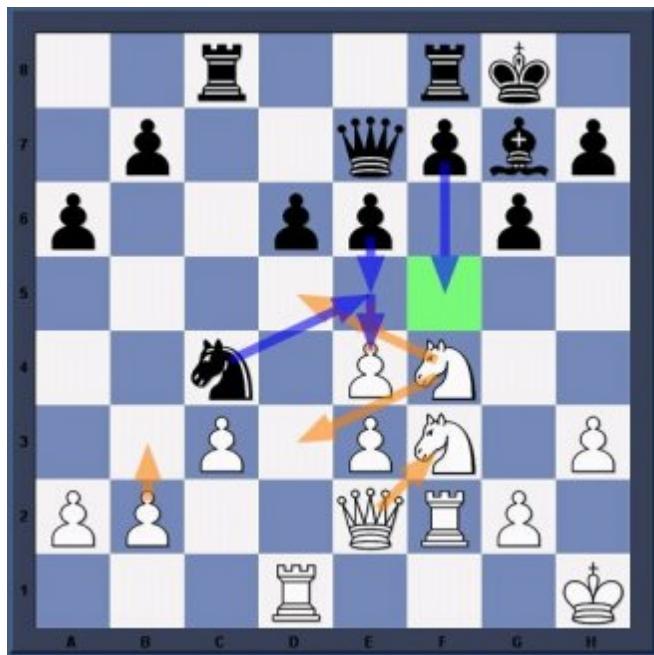
- Show Plans
- Coach Is Watching
- Spy
- Threatened Squares

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 program 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 results will be.

Below the engine window the currently examined variation line is always displayed.

The screenshot shows a chess board with the following moves and position information:

Game Position:

```

20.Sd3 Lh6 21.Sf4 b5 22.b3 Se5 23.Dd2 Tfd8 24.Sxe5 dxe5 25.Sd3 Dh4 26.Tf3
+ (-0.86) Tiefe: 15/15 00:00:00 73kN

```

Analysis Window:

```

20.Sd3 Tcd8 21.b3 Sa3 22.c4 b5 23.Sf4 f5 24.-- fxe4 25.Sd4 Sxc4 26.bxc4 bxc4
B52: Sizilianisch (Rossolimo-Variante)

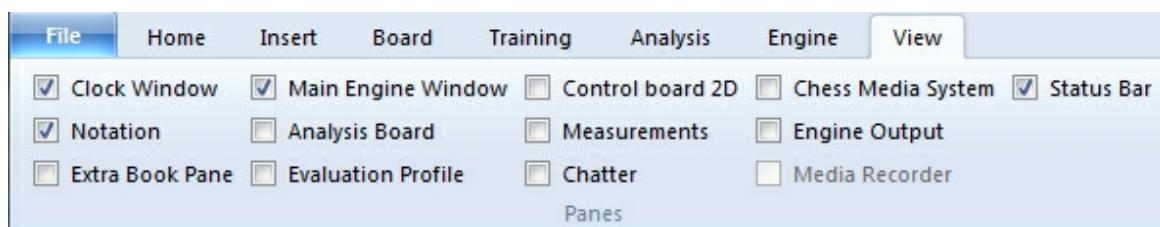
```

In this example the Fritz engine is thinking about how to react if 20.Nd3 is answered by 20...Rcd8, even though the best line is 20...Bh6. The advantage of this display is that it is kept up to date even if the best line remains unchanged for a long time.

2.15 Program windows

2.15.1 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.

2.15.2 Notation window

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



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.

Notation + Openings Book			
Notation	Score sheet	LiveBook	Openings Book
□ Anderssen, Adolf		■ Mayet, Carl	
Tournament Berlin m1			
Round	Date 1851		Result 1-0
ECO C52: Evans Gambit Accepted: 5 c3 Ba5			
1 e4 e5	21 Nx e5 Qf6	41	
2 Nf3 Nc6	22 Ng4! f x g4	42	
3 Bc4 Bc5	23 Re7+!	43	
4 b4 Bxb4	24	44	
5 c3 Ba5	25	45	
6 d4 exd4	26	46	
7 0-0 d3	27	47	
8 Ng5 Nh6	28	48	
9 e5 Nx e5?!	29	49	
10 Re1 Qe7	30	50	
11 f4! Bb6+	31	51	
12 Kh1 Nhg4	32	52	
13 Nh3! d6	33	53	
14 Bxd3 0-0	34	54	
15 fxe5 Nx e5	35	55	

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.

2.15.3 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).

Notation + Openings Book						
	N	%	Av	Perf	Fact	Prob [%]
Fritz12.ctg	2580	52.9	2583	2543		
3...Bc5	1538	54.2	2590	2536	0	49.3 54.0
3...Nf6	946	32.1	2575	2558	0	42.0 46.0
3...d6?	35	1.2	2575	2632	0	4.0 0
3...Be7?	64	2.1	2573	2476	0	3.6 0
3...g6?	2	0.1	2717	2843	0	1.1 0
3...f5?	3	1.1	-	-	0	0 0
3...h6?	2	0.8	-	-	0	0 0
3...Qe7?	1	0.4	-	-	0	0 0
3...Nd4?	0	0	-	-	0	0 0
3...a6?	0	0	-	-	0	0 0
3...Qf6?	0	0	-	-	0	0 0

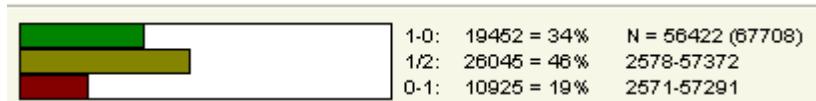
1-0: 599 = 39% N = 1538 (1750)
1/2: 468 = 30% 2565-2620 (941)
0-1: 471 = 31% 2590-2536 (937)

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 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

2.15.4 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:



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.



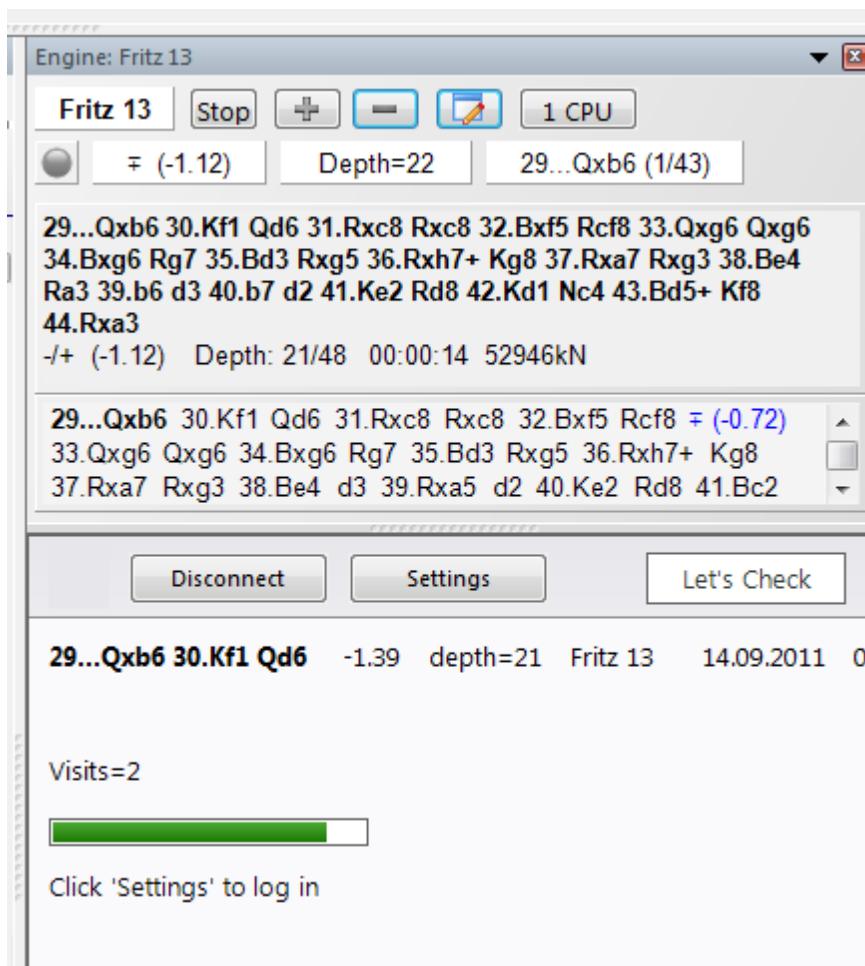
- ▶ **Note:** You can set the time controls for "Blitz" or "Long games" by right-clicking the chess clocks.

2.15.5 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 ...

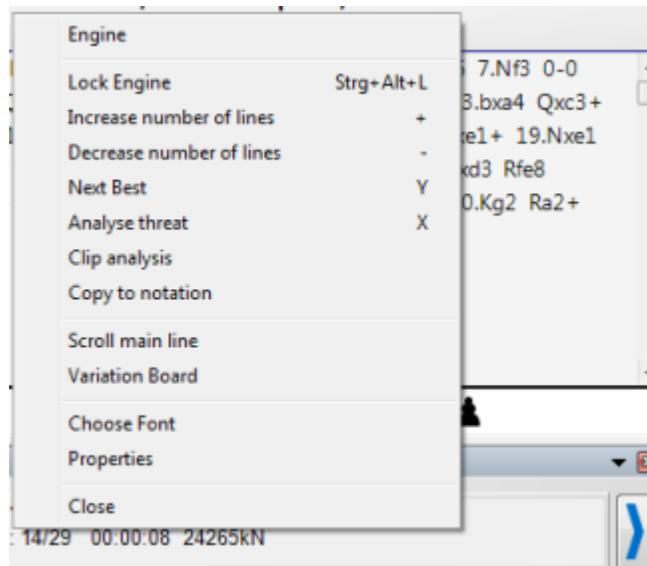


Note: Clicking on a line in the engine window enters this move on the chess board immediately. This works the same way as clicking on a move in the openings book.

- ▶ 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 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 its resources 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.

2.15.6 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.

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.

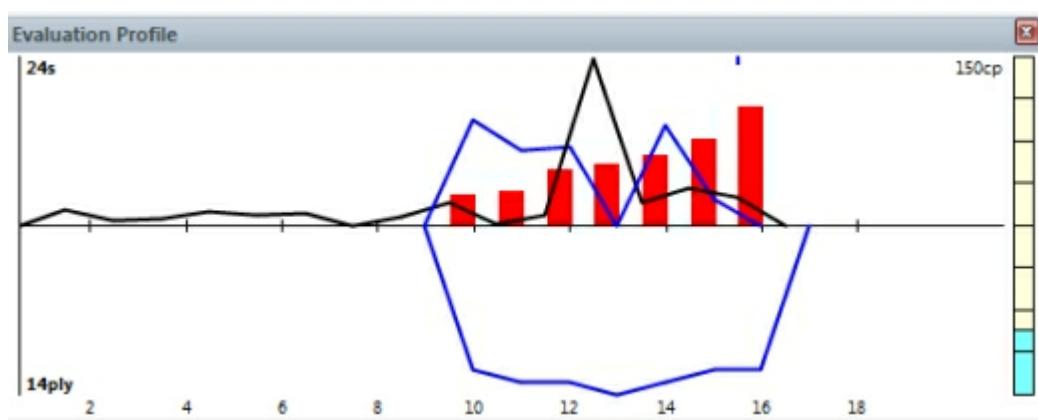
2.15.7 Evaluation profile

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

View - Evaluation Profile

Evaluation Profile

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.

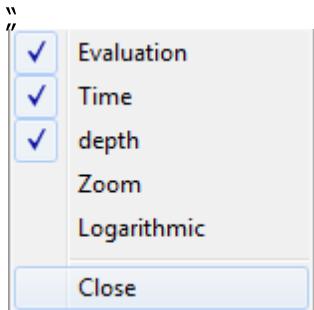
Superimposed in the evaluation profile is the time each side has used.

Blue graph: time used by White

Black graph: time used by Black

The scale is in seconds.

Right clicking on the evaluation offers different views:



The new option is the *Logarithmic* 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.

2.15.8 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.

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!"

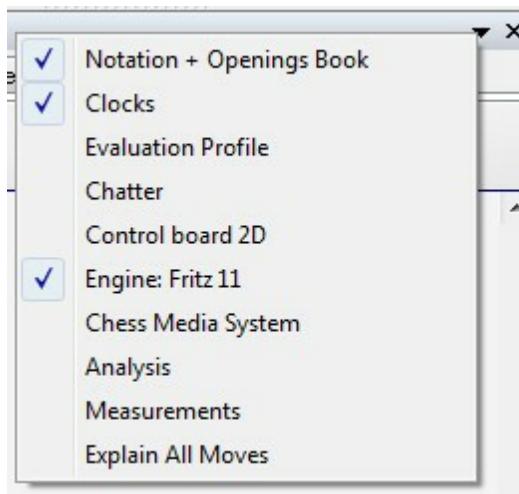
2.15.9 Window Pane Icons

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.



2.16 Move entry

2.16.1 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

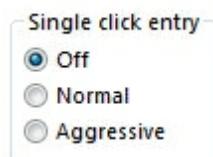
The initial for pawns is omitted, only the move co-ordinates are given.

- ▶ 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.
- ▶ 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**.

2.16.2 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

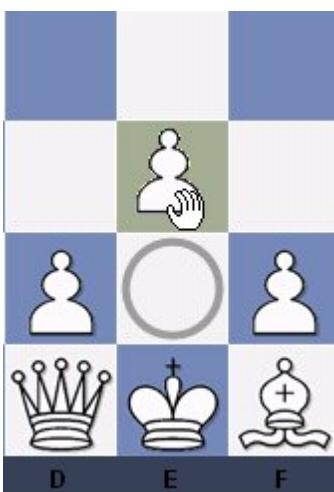
While your opponent is thinking you can already enter one or more moves, especially when they are obvious. It is marked with a green arrow and immediately executed when it is your turn. This saves a lot of time and is especially useful in endgames, where you might pre-enter an entire series like a2-a4-a5-a6-a7-a8. Note that right-clicking the board will delete clear all pre-moves.

2.16.3 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.



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.

2.16.4 Entering moves on the keyboard

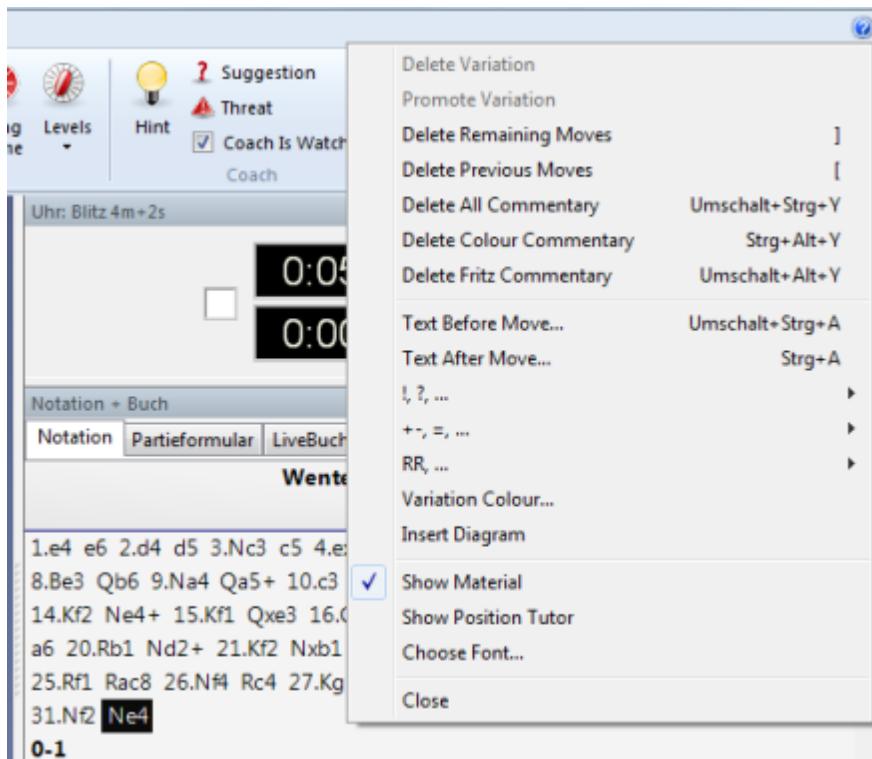
Because of the beautiful graphical interface of the program, you will probably want to enter moves using the mouse. There is, however, an interesting alternative. You can type in moves on the keyboard, a facility some experienced chessplayers might prefer.



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

2.16.5 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 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.

Takes back material
 Black has no isolated pawn any more on: a5
 White should play on the king side
 Black should play on the queen side



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.



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

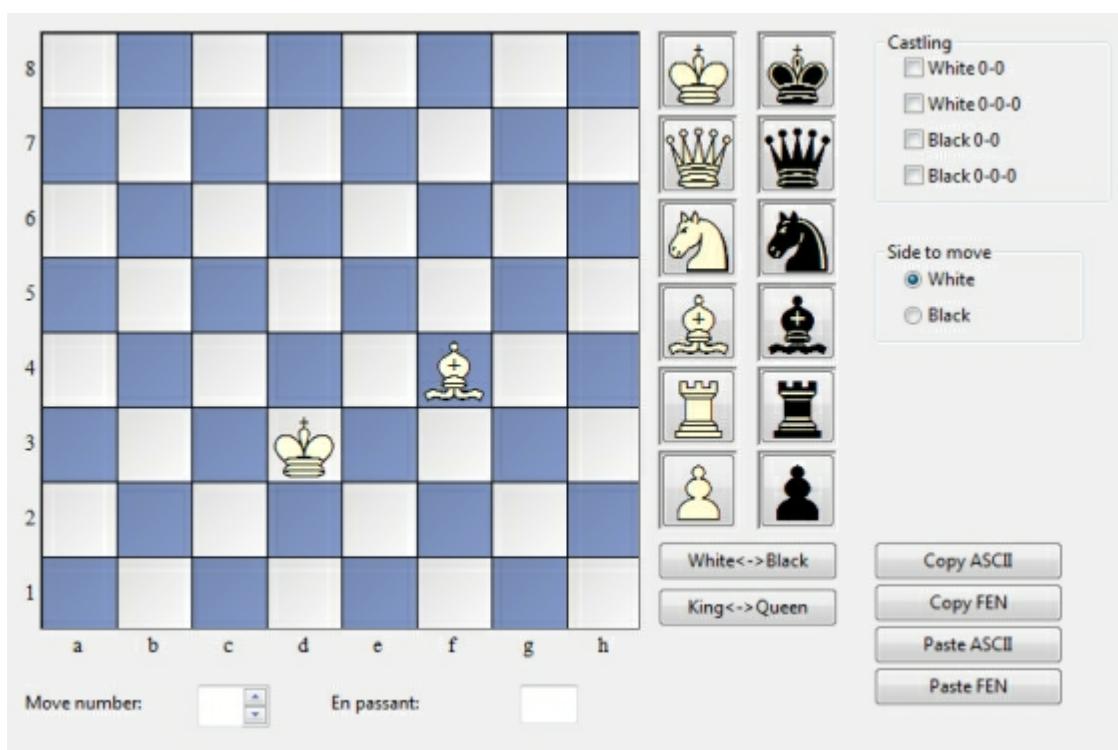
combination of mouse and keyboard. Press the Alt key and click a square or draw a line from one square to another. This will give you a green square or arrow. Alt+Ctrl does the same in yellow, use Alt+Shift for red. Clicking on the area around the board will remove the arrows and colored squares. All of this is great for chess lectures.

2.16.6 Position setup

Insert Position setup



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



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

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.

2.17 Keyboard

2.17.1 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.

2.17.2 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
♘	Ctrl-N	Knight
♗	Ctrl-B	Bishop
♖	Ctrl-R	Rook
♙	Ctrl-P	Pawn
→	Ctrl-A	with attack

↑	Ctrl-I	with initiative
⇄	Shift-Ctrl-C	with counterplay
Δ	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
田	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
½	Ctrl-Alt-R	draw
♂	Shift-Ctrl-P	passed pawn
○	Ctrl-.	isolated pawn

2.17.3 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.

Shortcuts

Commands:	Current key:
3D - Photorealistic 3D board using DirectX 8.1 or better	<input type="text"/>
3D Board - Select a 3D board style	<input type="text"/>
3D Board Options - Select 3D Board or Character, rendering quality	<input type="text"/>
About - About this program	<input type="text"/>
Accept Draw - Accept your opponents draw offer	<input type="text"/>
Activate - Activate Program	<input type="text"/>
Add Kibitzer - Add a Kibitzer engine pane to analyse or assist in a game	<input type="text"/>
Add Priority Analysis - Add analysis from annotated games as high priority	<input type="text"/>
Adjudicate Game - Adjudicate current game	<input type="text"/>
Admin (internal) - TeraBrain administration functions (internal only)	<input type="text"/>
All Windows - Show all Fritz windows	<input type="text"/>
Always promote to queen - Automatically promote queen	<input type="text"/>
Analyse threat - Calculate for the other side, analysing the threat	<input type="text"/>
Analysis Board - Toggle the Analysis Board window on/off	<input type="text"/>
Annotations - Open a palette with annotation symbols	<input type="text"/>
Attack Training - Click all white and black pieces that can be taken	<input type="text"/>
Big Analysis - Set a layout with a big analysis board	<input type="text"/>
Big Board - Set a layout with maximum board size	<input type="text"/>

Input new shortcut:

Currently assigned to: [unassigned]

Assign **Defaults**

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

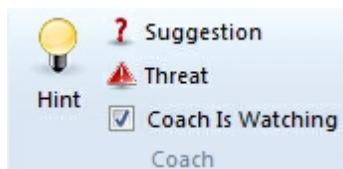
3.1.1 Help and coaching

During a game you can ask the program for advice:

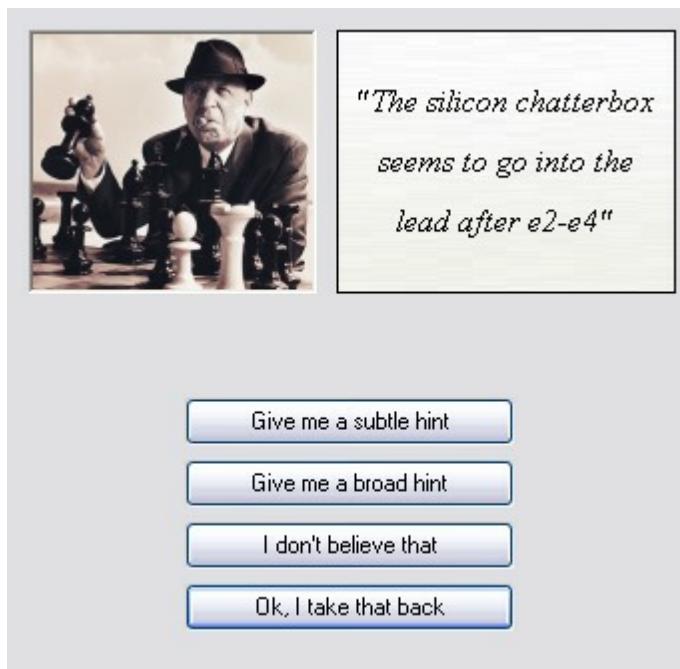
Hint	The program will analyse the position and offer advice
Suggestion	The program will suggest a move
Threat	Displays the direct threat
Explain all moves	Shows a list of all legal moves and what they achieve
Position tutor	Generates a brief strategic description of the current board position.
Threatened squares	Displays attacked and threatened squares in colour
Spy	Shows the plan or threat automatically with a coloured arrow
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	Possibilities for attack and defence manoeuvres are shown for every square when you move the mouse cursor over it
Opening Hints	If this option is selected, the program uses green arrows to show the most important opening moves
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.

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.



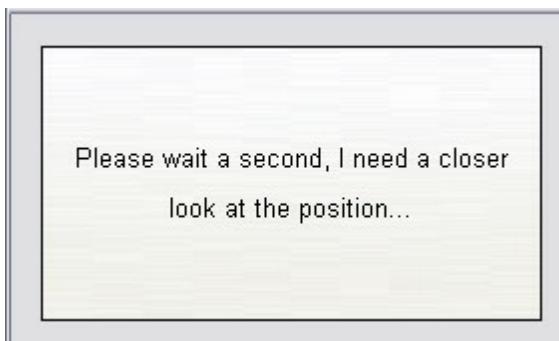
- ▶ The coach also gives move suggestions.
- ▶ If you make a blunder or a poor move, the coach appears and offers to help. You can switch this function on and off under *Home Coach is watching*.

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.

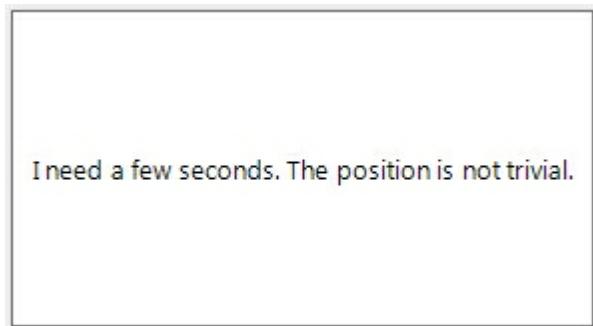
The quality of the hint assistance depends on the search depth, which you can adjust in the "Game" options.

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.



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

3.1.5 Explain all moves

Training Explain all moves.



This will open 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.

3.1.6 Measurements during a game

Using the menu *View - Measurements* you can open a window with two displays for the game's 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.



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.

3.1.7 Position tutor

Right click notation window "Show position tutor"

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

Show explanations for the current position

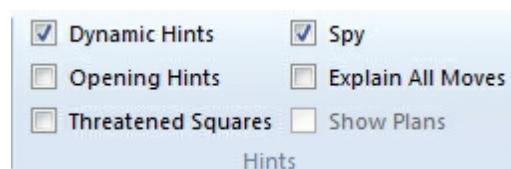
It generates a brief strategic description, in plain text, of the current board position. The information is displayed at the bottom of the notation window.

[15.Bd2?? Nxd3 16.Rxe7 Ndf2+ ;
15.Bc2 Nf2+ 1
 Black forks: d1+h1



3.1.8 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*.

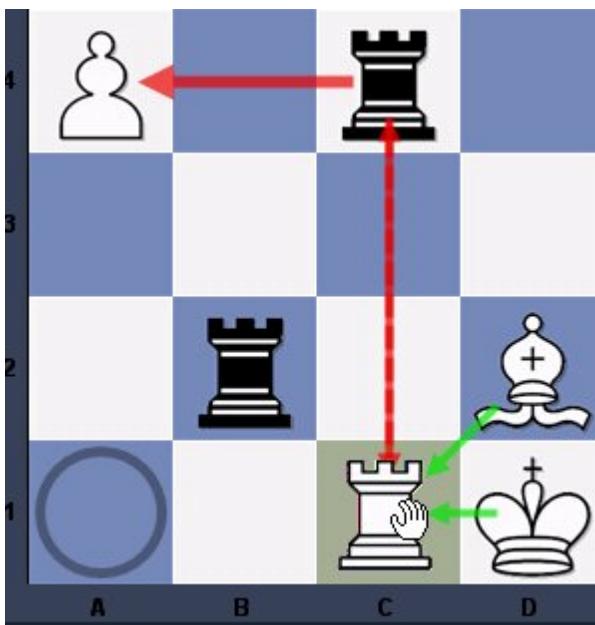


Possibilities for attack and defence manoeuvres are shown for every square when you move the mouse cursor over it. This "mouseover" effect gives assistance in understanding the balance of power on the board.

This information is shown in two colours. Green arrows are defensive manoeuvres, 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.

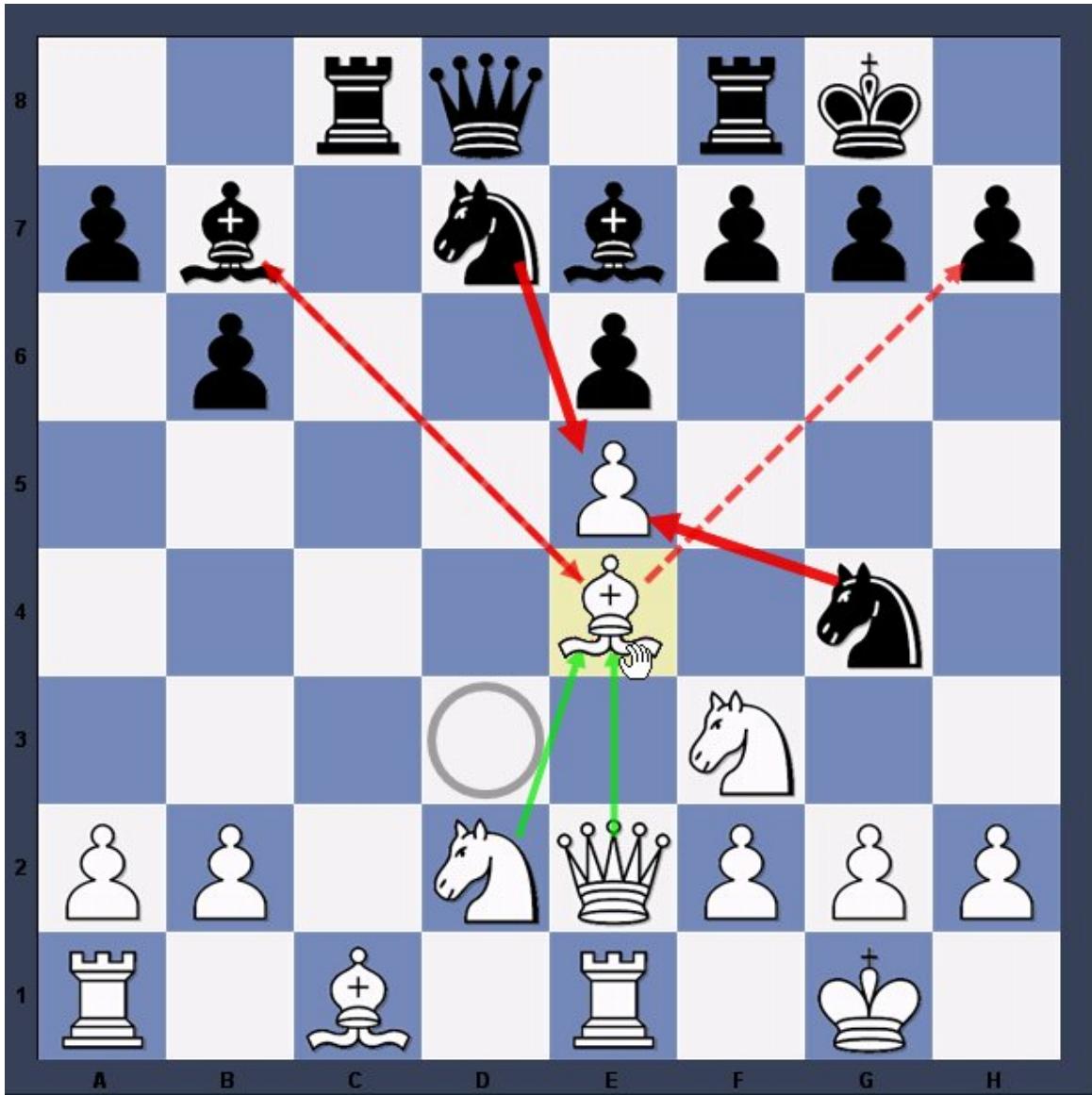


In this example the player has moved his rook from a1 (marked with a circle) to c1, and he has left his mouse cursor hovering over c1. The green arrows from the bishop and the king show that the rook on c1 is sufficiently defended.

The dotted line from c1 to c4 shows that White has the possibility of capturing the black rook if he does not make a move to avoid it.

The thick red arrow from c4 to a4 shows that the pawn can be captured immediately, winning material for Black.

Here is another example with a "full board":



White has moved his bishop from d3 to e4 without releasing the left mouse button. d3 is marked by a circle, e4 is marked by a coloured background.

The green arrows show that the knight on d2 and the queen on e2 are defending the bishop..

The dotted red line between b7 and e4 show capture possibilities. Since both bishops have a chance to capture each other the line has two arrow heads.

There is also a dotted red line from e4 to h7, showing that the bishop has the chance to capture the pawn in the next move.

There are thick red arrows from d7 and g4 to e5. This shows that after the white bishop has been dropped on e4 (by releasing the mouse button) either one of the knights can capture the pawn.

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

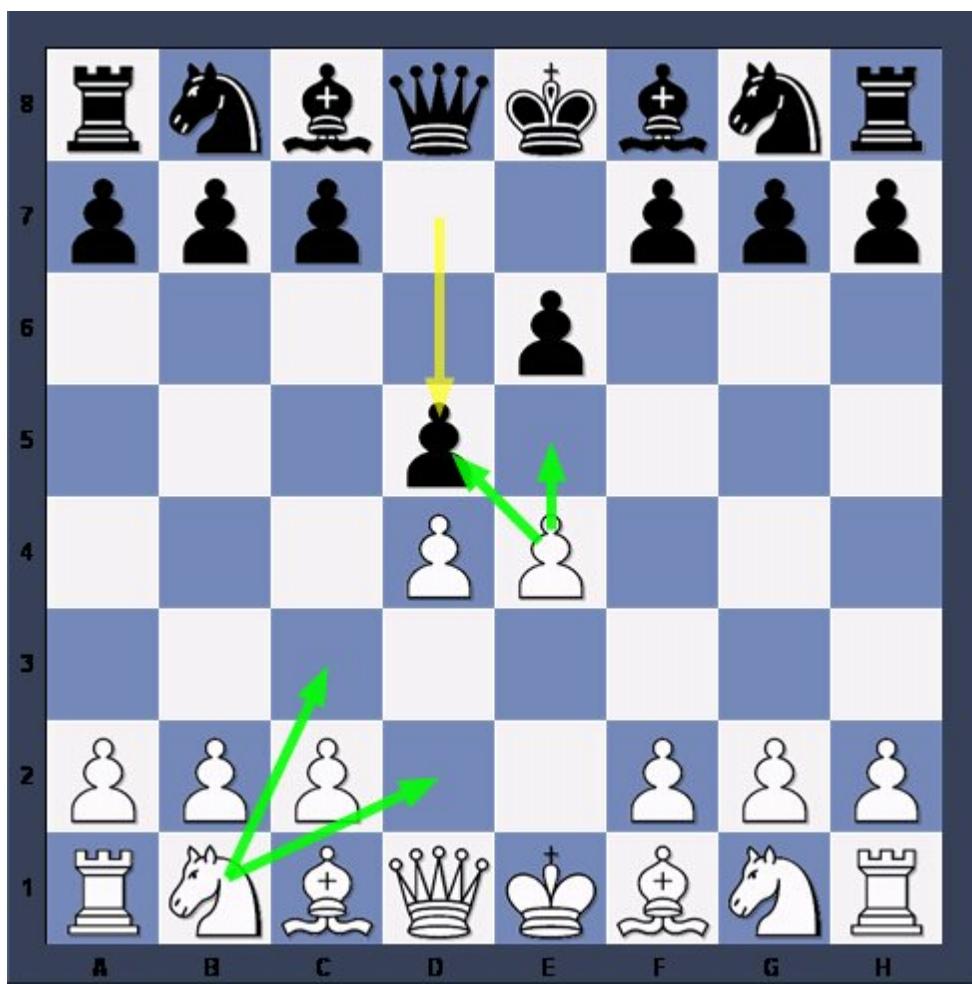
3.1.9 Opening Hints

The menu *Training - Opening Hints* can be used to display useful information in the beginning of a chess game. This phase is usually called the "opening".



Note: This is only possible if an openings book has been loaded.

If this option is selected during the opening, the program uses green arrows to show the most important moves in the position.



This example shows the board after the first moves of the French defence, 1.e4 e6 2.

d4 d5. It is now White's turn, and the green arrows show four plausible moves he can make.

Note: The arrows are not based on calculations made by the program, but on data read from the openings book. For this reason the Opening Hints can only be displayed when an openings book has been loaded.

3.1.10 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*.

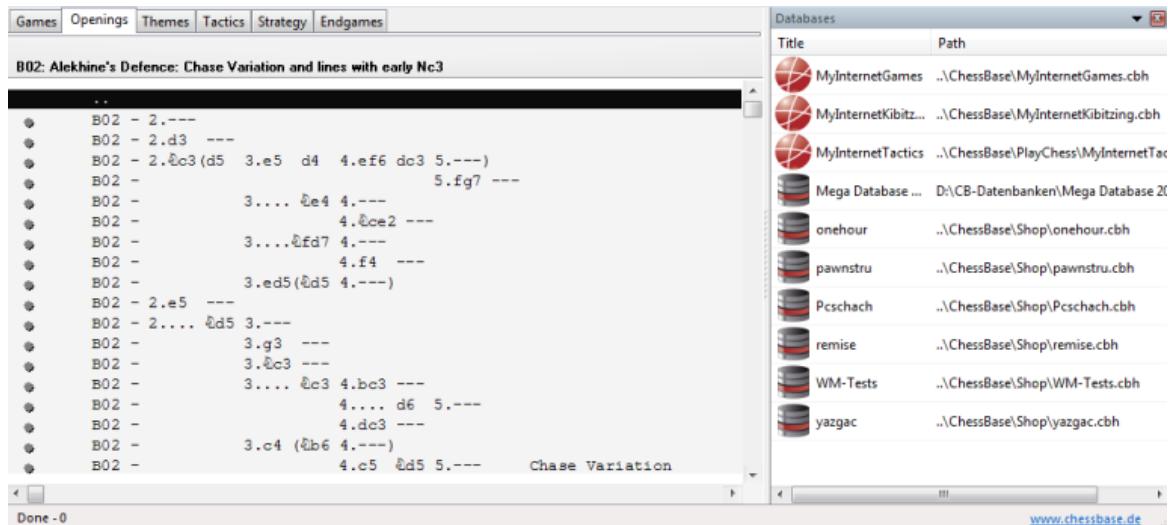


Select this function during a game's opening. The following example shows the result:



The program examines the board and compares it with classification positions. In this example it was possible to make an exact correlation 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.



3.1.11 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".

3.1.12 Threatened squares

Training Threatened squares



Displays the status of each piece on the board.

- ▶ A red square means that the piece is under attack and not sufficiently defended, or that it is being attacked by a piece of lesser value. This is usually a pretty serious danger signal and means you must take active measures to avoid losing a piece.
- ▶ Yellow means that the piece is under attack, but it is just sufficiently defended. You must be careful about removing any defending piece.
- ▶ Green means the piece has enemy contact but is well defended. Usually it is okay to remove a defending piece.

Help with your moves

With the “threatened squares” function switched on, the program will, in addition, help you with the move you are about to make. When you click a piece, all squares to which it can legally move are displayed in the corresponding colour codes:

- ▶ red for danger squares on which you will almost certainly lose material,
- ▶ yellow for contested squares, and
- ▶ green for safe ones.

3.1.13 Spy

Training Spy



In “spy” mode the program uses a red arrow to display what it is planning to do on its

next move. This feature helps beginners and intermediate players avoid dropping pieces or getting thrashed quickly. It is highly recommended as a training tool. Games played in spy mode tend to achieve a higher level of play.

The Spy uses coloured arrows to show the threats in the current board position. In contrast to the function „Show Threat“ this function also displays what will happen in the following move.

This function is not only useful for beginners, because it helps avoid elementary tactical errors. Games played with the spy function active are of a much better quality. This function has been improved and now the Spy only shows strong unmistakable threats.



In this position Black can take the pawn on d4 with his queen. This is shown by the orange arrow. After this White will move his bishop to put Black in check, as shown by the green arrow. After Qxd4 and Bd3-b5+ the unprotected black queen can be taken by White.

Note: If simple combinations are possible these are shown by a blue arrow on the chess board.

See the following example.



3.1.14 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.

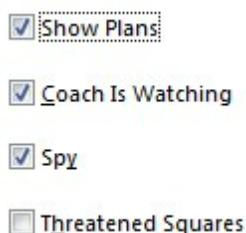
A new engine window appears in which it can work parallel to the one already loaded. You can use one or more kibitzers (up to six) to help you in your game against the primary engine, or you can use them for a second opinion on a position you are analysing. Remember that they will be sharing the processor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

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

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

3.1.15 Visualize Search

—
Menu File- Options - Engine Visualize Search



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 program 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 results will be.

Below the engine window the currently examined variation line is always displayed.

```
20.Sd3 Lh6 21.Sf4 b5 22.b3 Se5 23.Dd2 Tfd8 24.Sxe5 dxe5 25.Sd3 Dh4 26.Tf3
+ (-0.86) Tiefe: 15/15 00:00:00 73kN
< > [ ]
```

20.Sd3 Tcd8 21.b3 Sa3 22.c4 b5 23.Sf4 f5 24.-- fxe4 25.Sd4 Sxc4 26.bxc4 bxc4

B52: Sizilianisch (Rossolimo-Variante)

In this example the Fritz engine is thinking about how to react if 20.Nd3 is answered by 20...Rcd8, even though the best line is 20...Bh6. The advantage of this display is that it is kept up to date even if the best line remains unchanged for a long time.

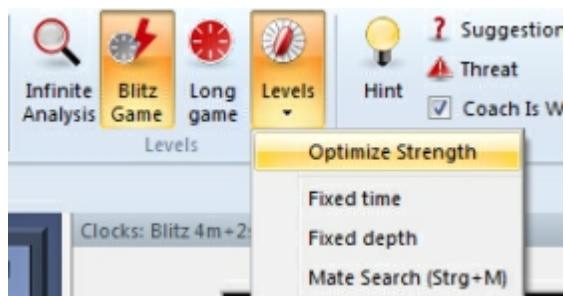
3.2 Levels of skill

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.



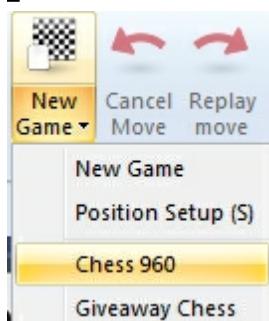
Reduced playing strength levels

- ▶ Friend mode
- ▶ Sparring
- ▶ Handicap and fun

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

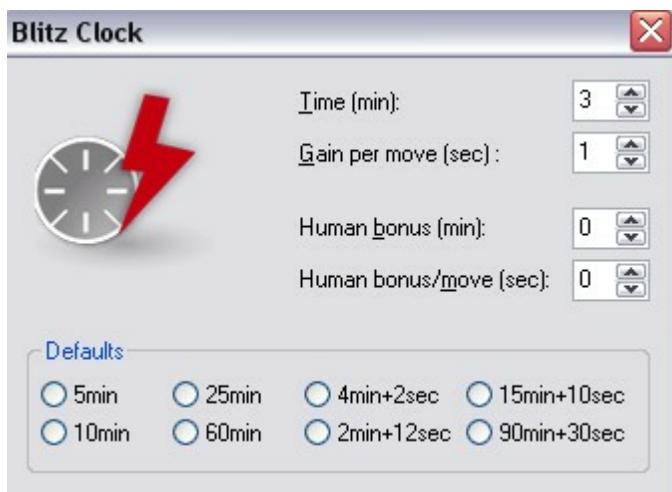
- ▶ Givaway chess
- ▶ Chess 960



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.

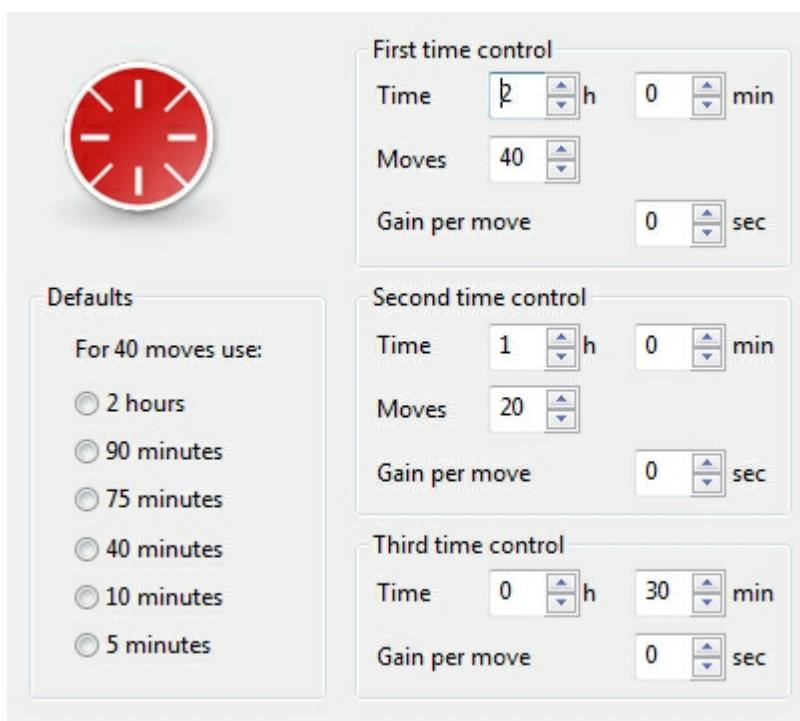
Note: You can set the time controls by right-clicking the chess clocks and selecting either "Blitz" or "Long game".

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

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 Sparring

Training Sparring

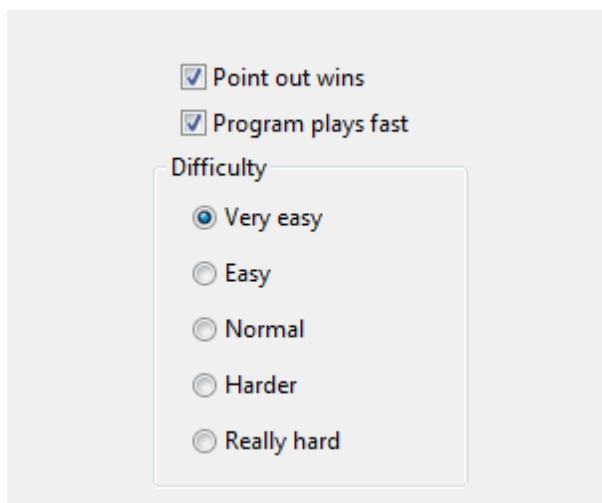


Sparring is an excellent training level for moderately advanced players.

The program plays a reasonably strong game, but at the same time makes tactical errors. If the program finds a move that allows the opponent to gain a tactical advantage in a clever way, it will play that move. It is a very realistic human style, the kind you encounter in a chess club.

You can select the grade of difficulty of the tactics that will be offered. Very easy is for players with an Elo of around 1400 and usually involves finding forks and two move combinations. Normal is meant for players between 1700 and 1900, and very hard is for players from 1900 all the way up to GMs.

When you use the "Sparring" mode, there is a choice from very easy to really hard. You can also specify whether the program should "point out wins" (i.e., flash a red light below the board when there is a good move available for you).

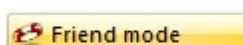


Alternately, the program will not warn you, but the message "you missed something" appears in the notation. This allows you to play through the game later and see where you missed a chance.

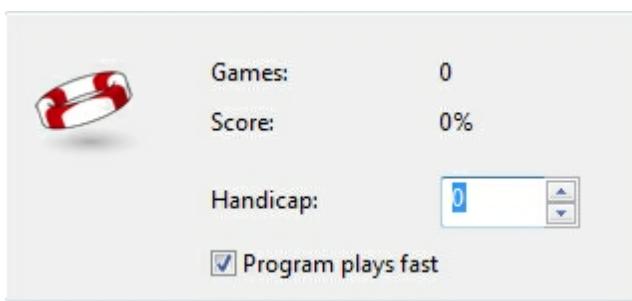
Sparring is good for moderately advanced players to top club players. The chess clock only records the time in sparring mode, and has no further relevance, so you can think for as long as you like.

3.2.5 Friend mode

Training Friend mode



In this mode the program automatically adjusts its level of play to match that of the opponent. When you start, it asks you for your *Handicap*. This is similar to golf and is measured in 100ths of a pawn. If you give a high value (e.g., 200 = two pawns) the program will reduce its strength considerably.

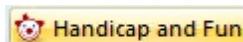


Afterwards the program will adjust your handicap to reflect your real playing strength. The smaller your handicap, the stronger you are. Top players will indeed achieve a negative handicap. If after about six games the program sets your handicap to below -400 (= minus four pawns), you are advised to practice elementary chess tactics and to concentrate on avoiding material loss. You should consider using the coach functions "Threatened squares" and "Show threat".

The *Friend mode* can be used by beginners and strong players alike. The chess clock only records the time and has no further relevance, so you can think for as long as you like.

3.2.6 Handicap and Fun

Training Handicap and fun



On a fast computer, this program is stronger than 99.99% of all chess players. If you are a beginner or an occasional player this would normally mean merciless beatings in every single game. That can be pretty frustrating, and indeed put you off chess.

For this reason, there are a number of predefined handicap levels in which you can reduce the playing strength and modify the style of the engine in many different ways. By moving the sliders you can increase or decrease the base strength, force king attacks and piece trading, influence the direction of play, etc.



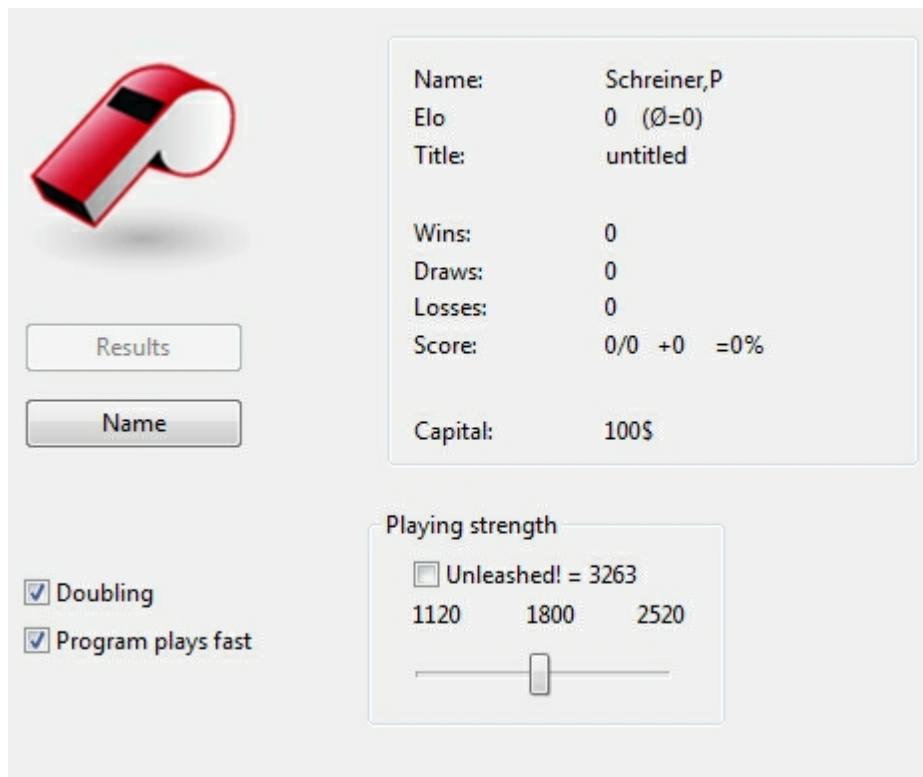
- ▶ **Predefined opponents:** You can pick from a list of pretty weird opponents (moron, patzer, drunk, fraidy cat, desperado, etc.). Each has his own personality and displays a different kind of strategic blindness.
- ▶ **Playing strength:** You can set a base playing strength in Elo rating points. Unfortunately, it is not possible to go down as far as would sometimes be necessary. You can, however, load the Fritz 1.20 engine which is weaker than all the other engines.
- ▶ **King's attack:** This determines whether the program will be primarily concerned with attacking your king, even if it means neglecting its own safety.
- ▶ **Piece trading:** Should the program trade pieces at every opportunity?
- ▶ **Playing direction:** Should it keep moving forward or keep retreating its pieces?
- ▶ **King and queenside:** The pieces are moved towards the king or queen side of the board.
- ▶ **King's defence:** Should the program be concerned about its king's safety, or should it simply ignore this?
- ▶ **Piece play:** You can specify which pieces the program should use. The slider at the bottom determines how often the program should move these pieces.
- ▶ **Blunder range:** You can specify how much material the program should be willing

to sacrifice for the opportunity to fulfil the other criteria. For instance, if you have set maximum piece play with the queen and a blunder range of 1.0, this means that the program will sometimes sacrifice a pawn in order to be able to move the queen. A setting of 3.0 or more will make it sacrifice a whole piece for the privilege.

The chess clock only records the time and has no further relevance, so you can think for as long as you like.

3.2.7 Rated games

Training Rated game



This switches the program into a special mode for serious tournament games which gives you an objective assessment of your playing strength.
In rated games, you will not be able to take back moves or receive any help from the program. You can only offer a draw or resign.



The only buttons available during a rated game are: Stop, draw offer, resign, Contra!, J'adoube

All rated games are automatically saved in the directory \ChessBase\CompBase\AutoSave. After a certain number of games you will

w get an evaluation of your performance and, if the evaluation is good, a title award from the computer.

In the rated game dialog box you can set the playing strength. If you set "unleashed" you will be playing against the program at its highest playing strength, and can gain Elo points fastest. But if you are not a very strong player, it is advisable to select a playing strength that is close to your own. You can also choose a weaker engine and set the strength of that down if the normal engine is too strong for you.

Doubling

In rated games you can play for (virtual) money, starting with \$100. If the *Doubling* option is on, you can double the stake at any stage of the game, just as one can in the game of backgammon. When you double, you offer your computer opponent the choice between resigning or continuing with the stake doubled. Of course, the program has the same right and will offer to double the stake at strategic moments.

In the beginning, any side may double. After the first double offer, the right goes to the other side. If your opponent doubles and you accept, only you may double again, now offering to play for the fourfold sum. Your "account" (the amount of money you have left) is displayed in the rated game dialog box.

3.2.8 Titles in rated games

w After you have played a certain number of rated games you will be awarded a title. The one you receive depends on the number of games and the results. For instance, if you are able to score over 2200 in more than 30 games, you will receive the title of Candidate master. The program also displays your Elo rating based on the performance in these games. This rating is constantly updated.

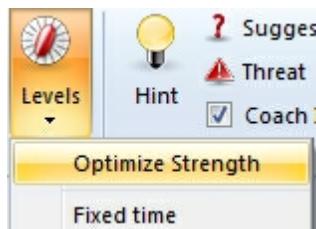
If you click the *More* button in the Rated game dialog box, the individual results you have achieved so far appear.

Title	Games	Elo rating
Amateur, hobby player	5	0
Ambitious hobby player	10	1200
Strong hobby player	16	1300
Club player	20	1350
Serious club player	24	1500
Experienced club player	24	1600
Strong club player	28	1700
Club tournament winner	28	1800
Club champion	30	1900
City champion	30	2000
District champion	30	2100
Candidate master	30	2200
FIDE master	30	2300
International Master	40	2400
Grandmaster	40	2500
Super-Grandmaster	40	2600

World championship candidate	40	2700
World champion	40	2800
Computer world champion	50	3000

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 from success and defeat.

Notation + Openings Book						
	N	%	Av	Perf	Fact	Prob [%]
Fritz12 ctq	207736	56.7	2578	2623		
1.e4	89963	56.5	2573	2621	0	33.4 40.8
1.d4	82088	57.0	2580	2623	0	31.8 38.9
1.c4	15831	57.7	2588	2629	0	16.6 20.3
1.Nf3	17961	56.4	2581	2626	-1*	16.8 0
1.g3?	1109	54.1	2579	2614	0	1.0 0
1.f4?	285	47.7	2531	2527	0	0.2 0
1.b3?	277	49.3	2579	2580	0	0.2 0
1.Nc3?	62	53.2	2589	2604	0	0 0
1.e3?	58	39.7	2537	2470	0	0 0
1.b4?	45	43.3	2565	2539	0	0 0
1.a3?	26	46.2	2560	2542	0	0 0
1.d3?	16	31.3	2555	2427	0	0 0
1.c3?	11	63.6	2529	2652	0	0 0
1.g4?	2	25.0	2509	2383	0	0 0
1.Nh3?	1	100.0	-	-	0	0 0
1.h3?	1	0.0	-	-	0	0 0

 1-0: 32124 = 36% N = 89963 (107128)
 1/2: 37421 = 42% 2573-2621 (85238)
 0-1: 20418 = 23% 2575-2529 (85310)

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

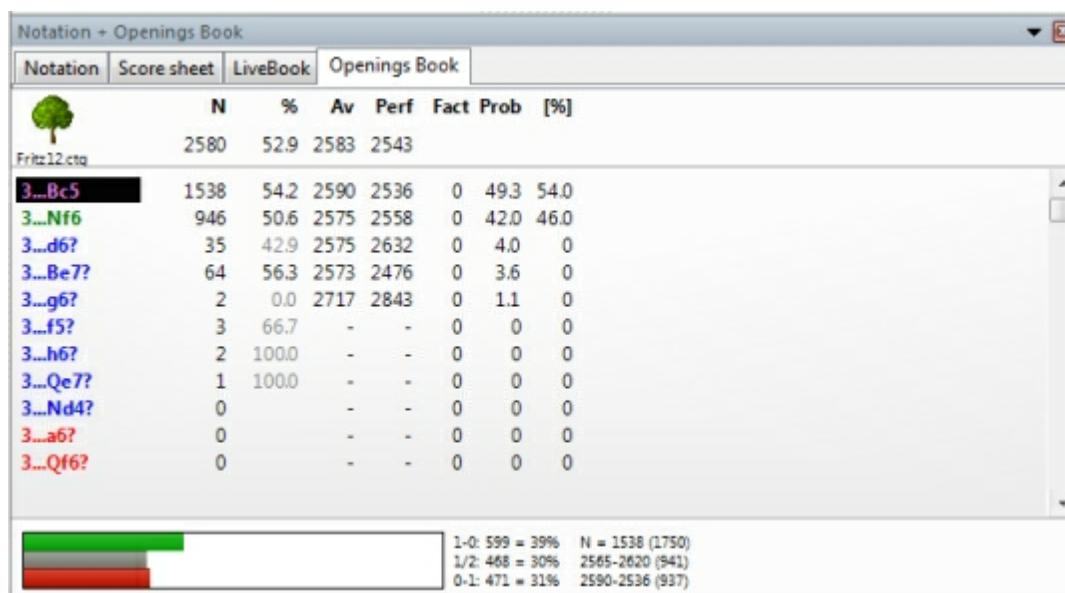
the program. Otherwise the operating system will try to back up the giant files every time you close the program.

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).



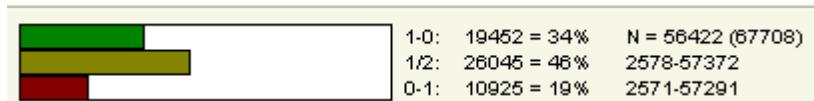
Extended Book Display

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.
- ▶ **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.

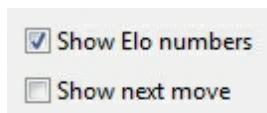
How to navigate the tree

- ▶ 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

3.3.3 Extended Book Display

In the book options you can use „Display 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.

Notation + Openings Book						
	N	%	Av	Perf	Fact	Prob [%]
	207736	56.7	2578	2623		
Fritz12.ctg						
1.e4 89963 56.5%	1...c5 37469 56.3%	1...e5 28465 55.8%	1...d5 971 63.2%	1...h5 0		
1.d4 82088 57.0%	1...Nf6 51599 56.6%	1...d5 22895 57.2%	1...f5 1281 58.7%	1...c5 349 60.0%		
1.c4 15831 57.7%	1...Nf6 5235 59.1%	1...e6 2382 59.0%	1...c5 2039 59.1%	1...f5 274 59.9%		
1.Nf3 17961 56.4%	1...Nf6 9521 56.6%	1...d5 4639 56.0%	1...c5 2088 55.7%	1...f5 281 61.9%		
1.g3? 1109 54.1%	1...d5 440 52.6%	1...g6 216 62.3%	1...e5 186 48.9%	1...Nf6 115 55.7%		
		1-0: 32124 = 36% N = 89963 (107128) 1/2: 37421 = 42% 2573-2621 (85238) 0-1: 20418 = 23% 2575-2529 (85310)				

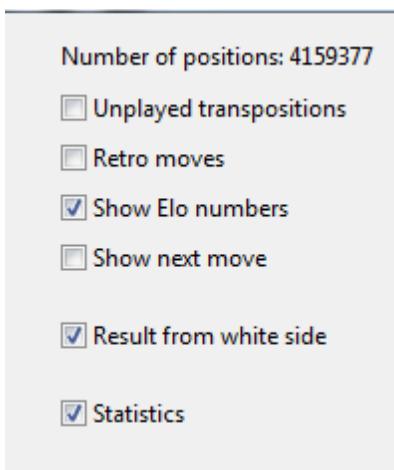
Inside each box a move is displayed, the number of games in which this move was displayed, and the success rate as a percentage.

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.

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

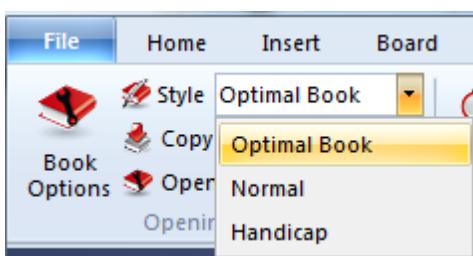
Statistics will produce exact details for each move as a bar graphic at the bottom of the screen. It shows in how many games the move occurred and what percentage of these games were won, drawn or lost. The graphics make it easy to take in the information at a glance.

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



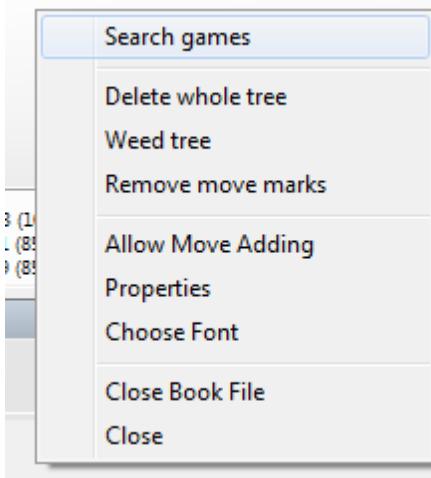
- ▶ **Optimal book** instructs the program not to play moves that have been excluded

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

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



- ▶ Search games displays a list of all games 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.

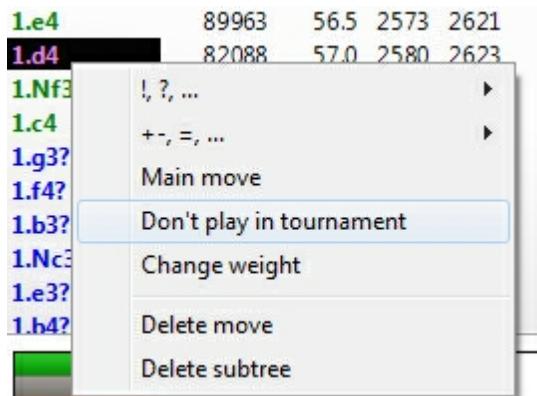
3.3.6 Tournament move

A tournament move appears as green in the openings tree window

	Notation	Score sheet	LiveBook	Openings Book				
	N	%	Av	Perf	Fact	Prob	[%]	
Fritz12.ctg	207736	56.7	2578	2623				
1.e4	89963	56.5	2573	2621	0	33.4	33.9	
1.d4	82088	57.0	2580	2623	0	31.8	32.3	
1.Nf3	17961	56.4	2581	2626	0	16.8	17.0	
1.c4	15831	57.7	2588	2629	0	16.6	16.8	
1.g3?	1109	54.1	2579	2614	0	1.0	0	
1.f4?	285	47.7	2531	2527	0	0.2	0	
1.b3?	277	49.3	2579	2580	0	0.2	0	
1.Nc3?	62	53.2	2589	2604	0	0	0	
1.e3?	58	39.7	2537	2470	0	0	0	
1.b4?	45	43.3	2565	2539	0	0	0	

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, Fajerowicz 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**.

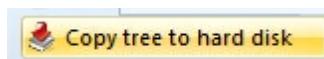
The program can create an openings key based on the ECO code.



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

3.3.8 Copy openings book to hard disk

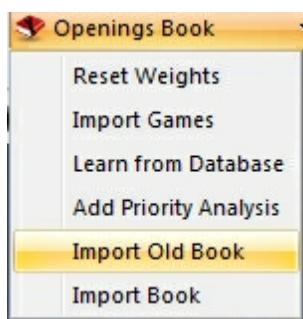
Analysis Copy tree to hard disk



This will copy an openings tree from the CD 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

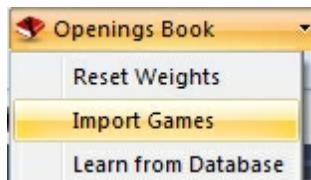


- ▶ *Import book* merges the contents of a different book into the current one.
- ▶ *Import old book* converts a book in the older (FBK) format and imports the contents.

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.

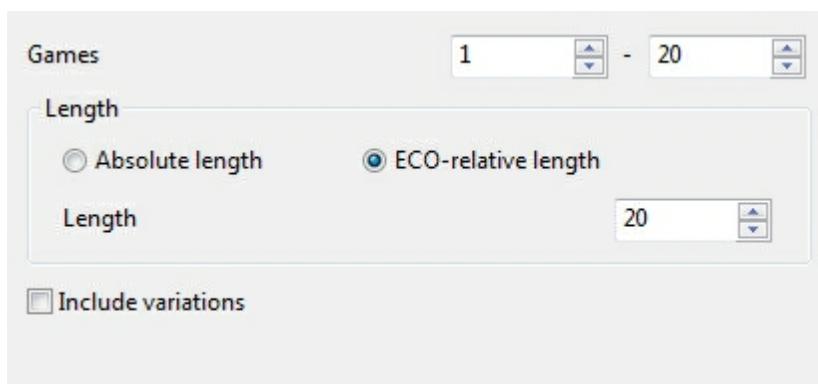
3.3.10 Importing games to the openings book

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.

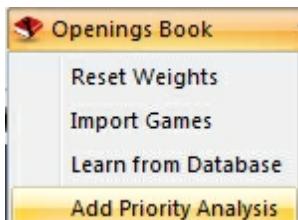
1. You can specify that every variation should be "n" moves long.
2. It is more sensible to limit the variations relative to the ECO classification. This results in long variations for theoretical main lines (ECO classification position found late in the game) and short variations for side lines (i.e., 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.

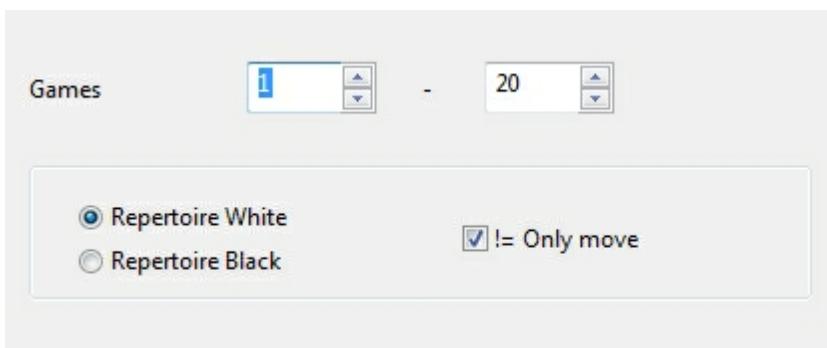
You can also include variations (i.e., analysis that might be included in the games), but these are not included in the statistical analysis.

3.3.11 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.



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).

3.3.12 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.

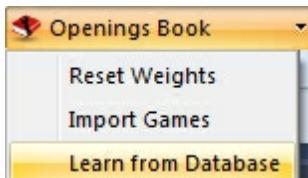
- ▶ Import old book converts a book in the old (FBK) format and imports the contents.
- ▶ Import games merges the games of a selected database into the tree, including full statistics.
- ▶ Learn from database adds the statistics from a selected database without actually importing the moves into the tree.
- ▶ 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.

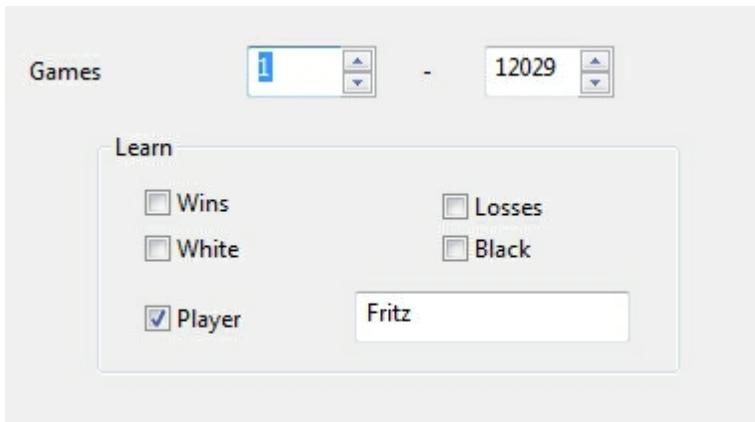
Learning from a database

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



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.

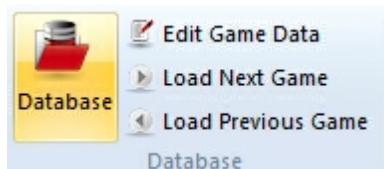
3.4 Database functions

3.4.1 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.

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.

The screenshot shows the ChessBase 12 interface. The main window displays a list of chess games in a tournament table format. The columns include Player names, Tournament names, and game details like date, result, and round. A vertical scroll bar is visible on the right side of the main list. To the right of the main window is a separate 'Databases' browser window. This browser lists various databases with their titles and paths. The databases shown include 'MyInternetGames' (..\\ChessBase\\MyInternetGames), 'MyInternetKibitzing' (..\\ChessBase\\MyInternetKibitzing), 'Mega Database ...' (D:\\CB-Datenbanken\\MegaDatabase), 'onehour' (..\\ChessBase\\Shop\\onehour), 'pawnstru' (..\\ChessBase\\Shop\\pawnstru), 'Pcschach' (..\\ChessBase\\Shop\\Pcschach), 'remise' (..\\ChessBase\\Shop\\remise), 'WM-Tests' (..\\ChessBase\\Shop\\WM-Tests), and 'yazgac' (..\\ChessBase\\Shop\\yazgac). The 'Open Database' option is highlighted in yellow.

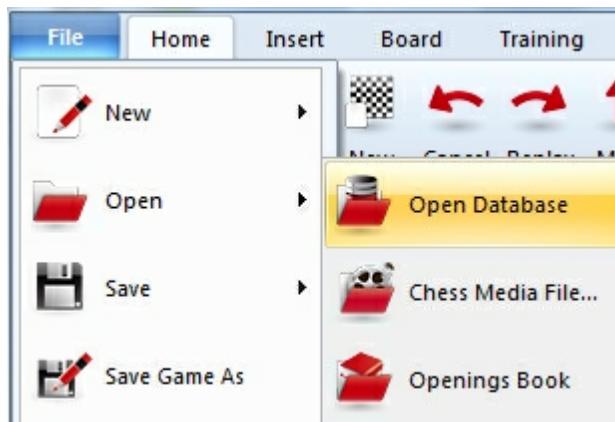
You can also get there from the main board by pressing F12 or Esc. These keys will get you back to the board window.

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.

Here are the main functions:

File Menu Open Database (or Ctrl-0)

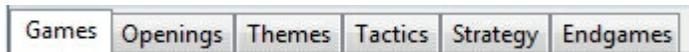


Use this command to browse for the database you want. The databases can be in many different formats – CBH, CBF, PGN, etc. You can convert games from one format to another by copying them into a database with the format you require.

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.

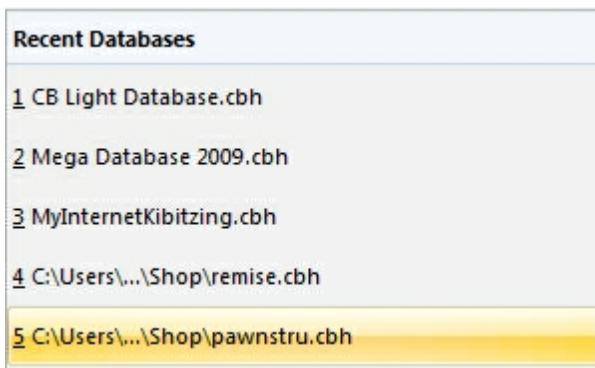


- ▶ Games gives you the simple games list.
- ▶ Openings produces a list of openings. Double-click an opening to go to the sub-lines or the games of that opening. If you are not familiar with the “ECO” openings index you can click *New Openings index* and choose a descriptive (“coarse”) classification with well-known names like “Sicilian”, “Pirc”, “French Defence”, etc.
- ▶ Themes gives you an index of middlegame themes (“critical positions”, “pawn structures”, etc.).
- ▶ Tactics is an index of tactical themes, like sacrifices, checkmates or brilliant moves.
- ▶ Strategy contains indexes like outposts, winning ideas, pushing pawns, etc.
- ▶ Endgames has different common endgame categories.

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.

3.4.2 Preview window

Database window - Menu View - Database Browser



A preview window has been integrated into the database window.

Databases	
Title	Path
MyInternetGames	..\ChessBase\MyInternetGames.cbh
MyInternetKibitz...	..\ChessBase\MyInternetKibitzing.cbh
MyInternetTactics	..\ChessBase\PlayChess\MyInternetTac
Mega Database ...	D:\CB-Datenbanken\Mega Database 20
onehour	..\ChessBase\Shop\onehour.cbh
pawnstru	..\ChessBase\Shop\pawnstru.cbh
Pcschach	..\ChessBase\Shop\Pcschach.cbh
remise	..\ChessBase\Shop\remise.cbh
WM-Tests	..\ChessBase\Shop\WM-Tests.cbh
yazgac	..\ChessBase\Shop\yazgac.cbh

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.

3.4.3 Games list

Title	Path
MyInternetGames	..\\ChessBase\\MyInternetGames
MyInternetKibitzing	..\\ChessBase\\MyInternetKibitzing
Mega Database ...	D:\\CB-Datenbanken\\MegaDatabase.1
onehour	..\\ChessBase\\Shop\\onehour
pawnstru	..\\ChessBase\\Shop\\pawnstru
Pcschach	..\\ChessBase\\Shop\\Pcschach
remise	..\\ChessBase\\Shop\\remise
WM-Tests	..\\ChessBase\\Shop\\WM-Tests
yazgac	..\\ChessBase\\Shop\\yazgac

In the games list, you can see the game numbers, names of the players, their ratings (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:

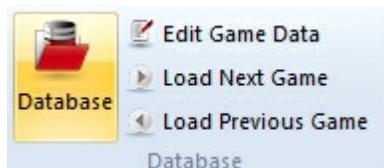
- V = the game contains variations (alternate lines)
- C = the game contains text commentary
- A = it contains graphic annotations (coloured squares and arrows)
- F = the game contains correspondence chess commentary
- I = critical positions (special annotation) are marked in the game
- T = the game 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. For instance "Vca" means a lot of variations, but relatively little text commentary and graphic annotation.

3.4.4 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 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.

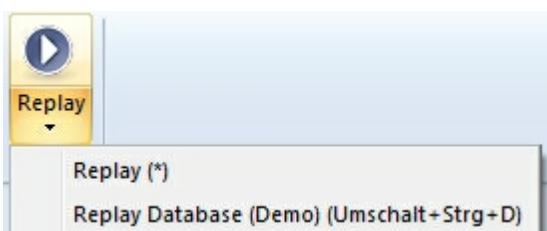
If there are no replay buttons beneath the board, right-click the board or area around it and select "Replay arrows below board".

Navigating games with the slider

The program has an 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.

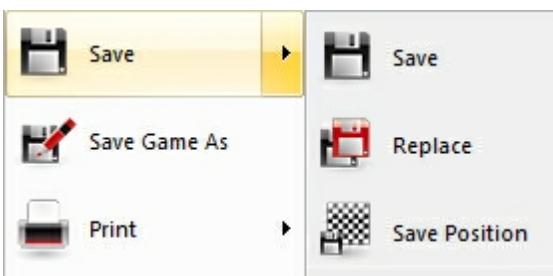
Analysis – Replay game



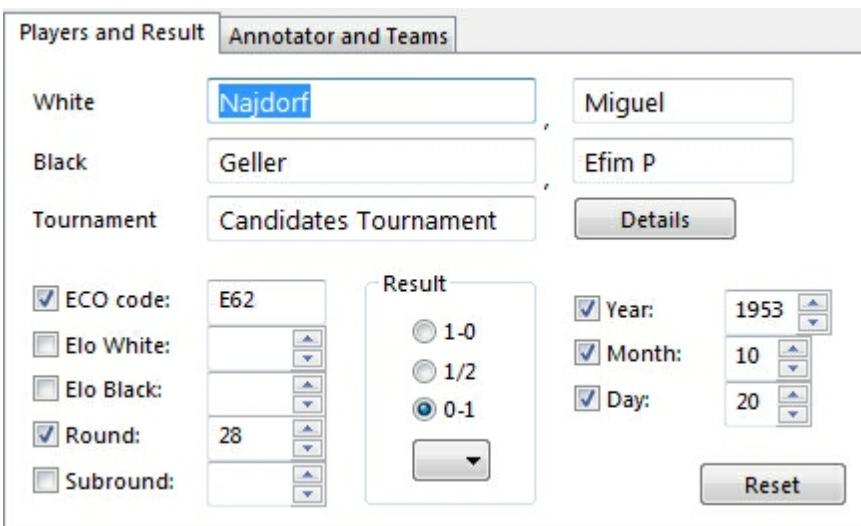
This will automatically play through the moves of the current game. You can adjust the speed in the control window that appears.

3.4.5 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 names of internationally known players. To facilitate the standardization of names you can use 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.

► 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.

3.4.6 Copying Games

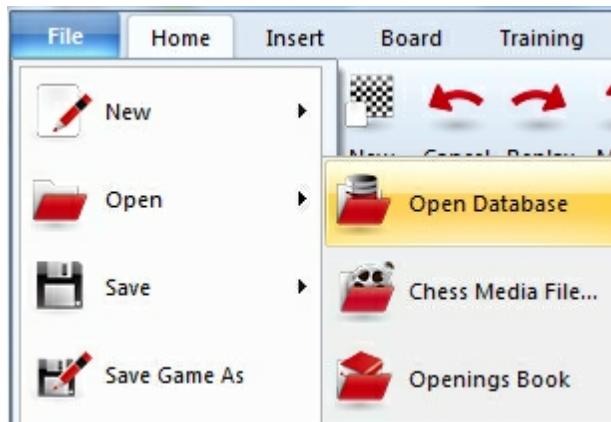
We're going to look at how to copy games from one database to another. It works very much like the process of copying files in Windows Explorer or copying text in a word processor.

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*.

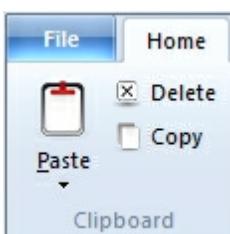


Highlight the games you want to copy; there are a number of ways to do this. You can hold down the CTRL key on your keyboard and single-click on the individual games you'd like to copy. If the games are in a "block" (that is, adjacent to each other in the database), you can hold down the SHIFT key and use the down cursor (down arrow) 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.

	Games	Openings	Themes	Tactics	Strategy	Endgames	
	Players					Tournament	
355	De Labourdonnais,Louis Charles Mahe	- M	London m1 (17)			D20 1834 1-0 29 c	
356	McDonnell,Alexander	- De Labourdonnai	London m1 (18)			C33 1834 0-1 30 c	
357	De Labourdonnais,Louis Charles Mahe	- M	London m1 (19)			C23 1834 0-1 54 c	
358	McDonnell,Alexander	- De Labourdonnai	London m1 (20)			C33 1834 0-1 20 c	
359	De Labourdonnais,Louis Charles Mahe	- M	London m1 (21) [ChessBase]			C24 1834 0-1 39 Vc	
360	McDonnell,Alexander	- De Labourdonnai	London m1 (22)			C33 1834 0-1 46 c	
361	De Labourdonnais,Louis Charles Mahe	- M	London m1 (23)			D00 1834 0-1 36 c	
362	McDonnell,Alexander	- De Labourdonnai	London m1 (24)			C23 1834 0-1 30 c	
363	De Labourdonnais,Louis Charles Mahe	- M	London m1 (25)			A03 1834 1-0 54 c	
364	Wayte,William	- Williams,Elijah	England			C58 1835 0-1 21	
365	De Labourdonnais,Louis Charles Mahe	- B	Paris			C51 1836 1-0 33	
366	Deschapelles,Alexandre	- De Labourdon	Paris			1836 1-0 5 P	

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.

3.4.7 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.

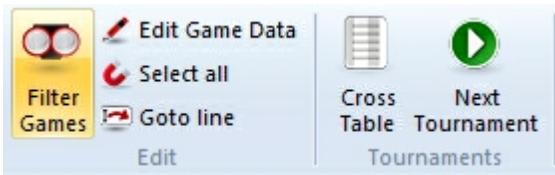
3.4.8 Autosave database

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.

3.4.9 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

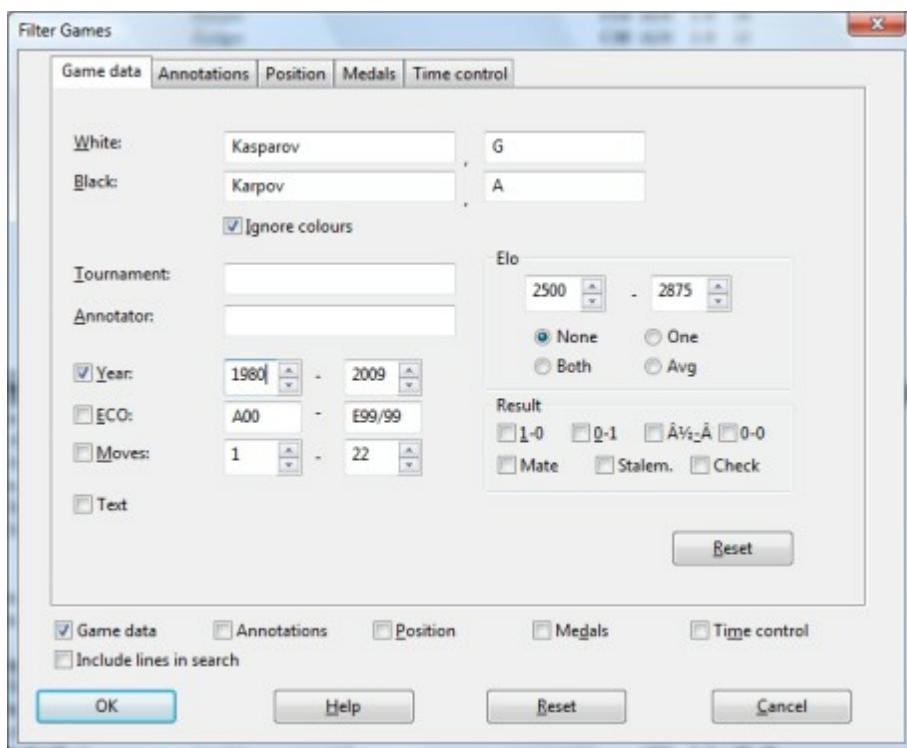
- ▶ Search for positions or position fragments
- ▶ Search for medals

Note: In the database window, pressing the Tab key will switch the search filter on and off.

3.4.10 Search for names, tournaments, etc.

Menu: View 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.



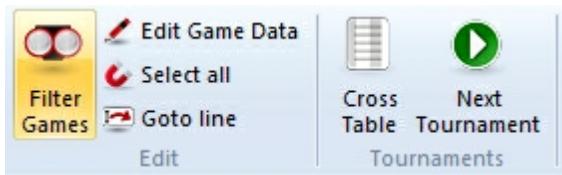
- ▶ **White/Black:** Enter the name or part of it (“kasp” is sufficient to find Kasparov’s games). You can use wildcards: “*asparov” will get you all Kasparov’s games as well. The search is case sensitive, but typing a small letter at the beginning will work, since it is automatically changed into a 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.

- ▶ **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.

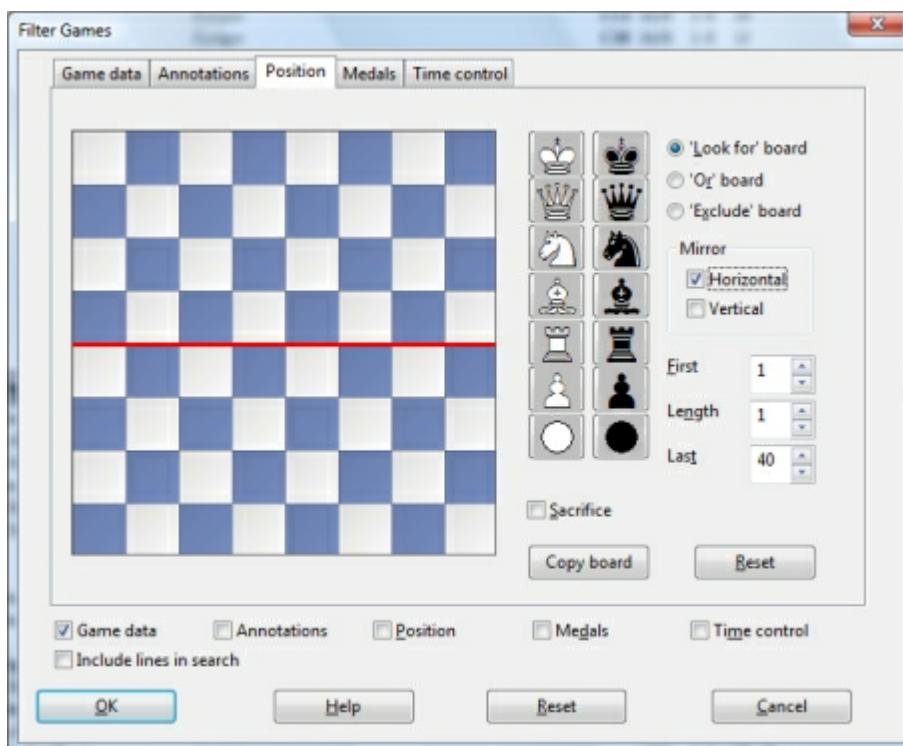
It is possible to search in a database for games with no result. Clicking the box **0-0** makes the program search the database for games which have been listed in the database with no result.

3.4.11 Search for positional fragments

Database Window - Home - Filter games (or Ctrl-F)



Produces a "search mask". Click "Position" to look for games which contain specific positions or positional fragments.



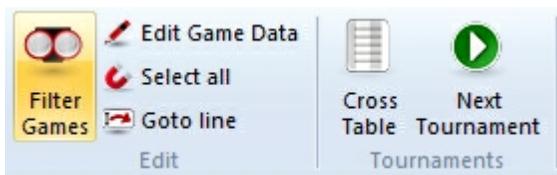
To deposit pieces on the board, click a piece type on the right and then a square on the board. Clicking with the right mouse button deposits a piece of the opposite colour. The two "jokers" at the bottom can be used to indicate that any piece of that colour should be present.

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.

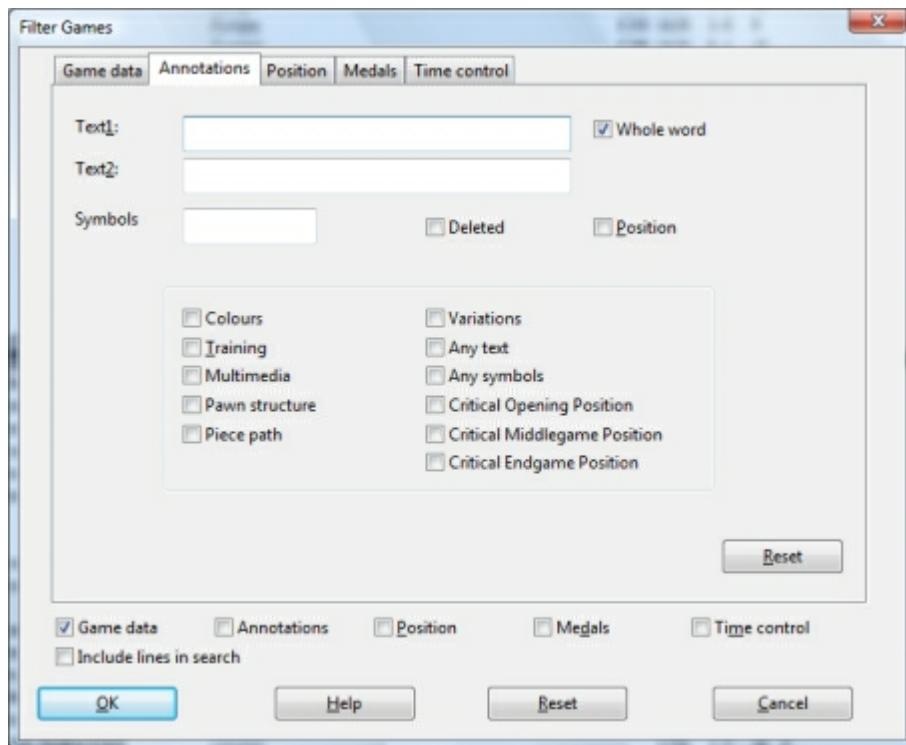
- ▶ **Look for, Exclude and Or boards:** You can enter different pieces for each of these. In the first case the program will look for the positional fragment. In the second it will make sure the positional fragment did not occur in the games it retrieves. On this board you can enter multiple pieces 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.

3.4.12 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.

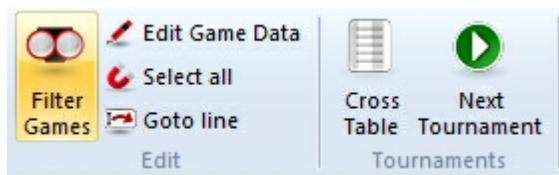
- ▶ **Text1, Text2:** Enter two text strings and the program will search for all games in which either occurred.
- ▶ **Whole word:** Check this to search for an exact match only. In the example on the right, the program will not find “brilliantly”.
- ▶ **Symbols:** Enter commentary symbols like “!” and “!?”.
- ▶ **Deleted:** Check to retrieve deleted games.

- ▶ **Position:** List games that start from a special position (e.g., problems and studies).

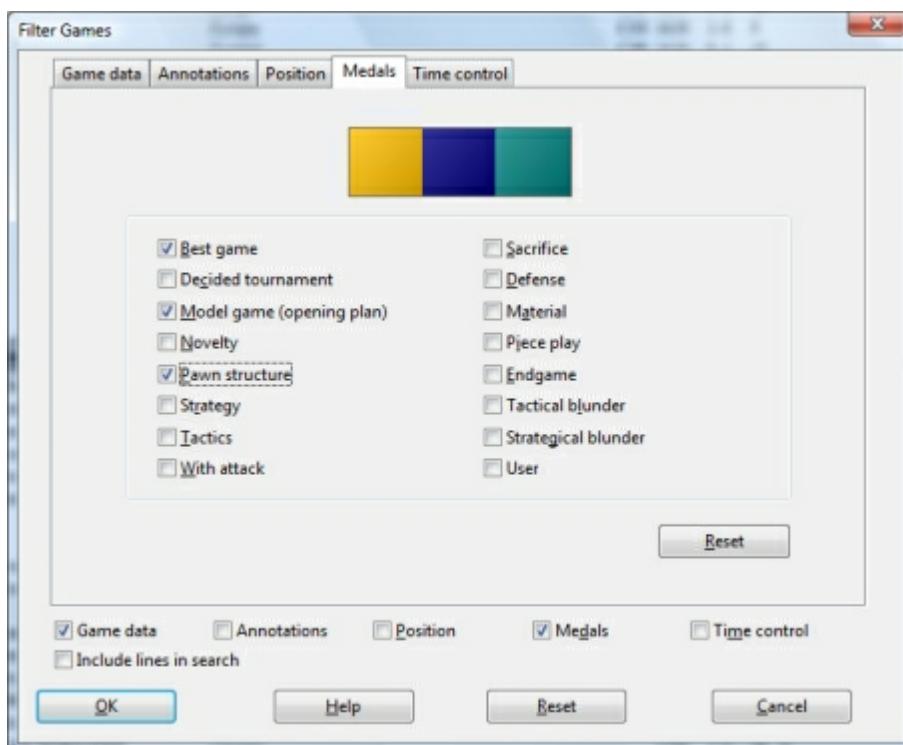
You can also search for games that contain variations, training positions, multimedia, coloured squares and arrows ("Colors"), marks for pawn structure, piece paths, critical positions, etc.

3.4.13 Search for medals

Database Window - Home Filter games (or Ctrl-F)



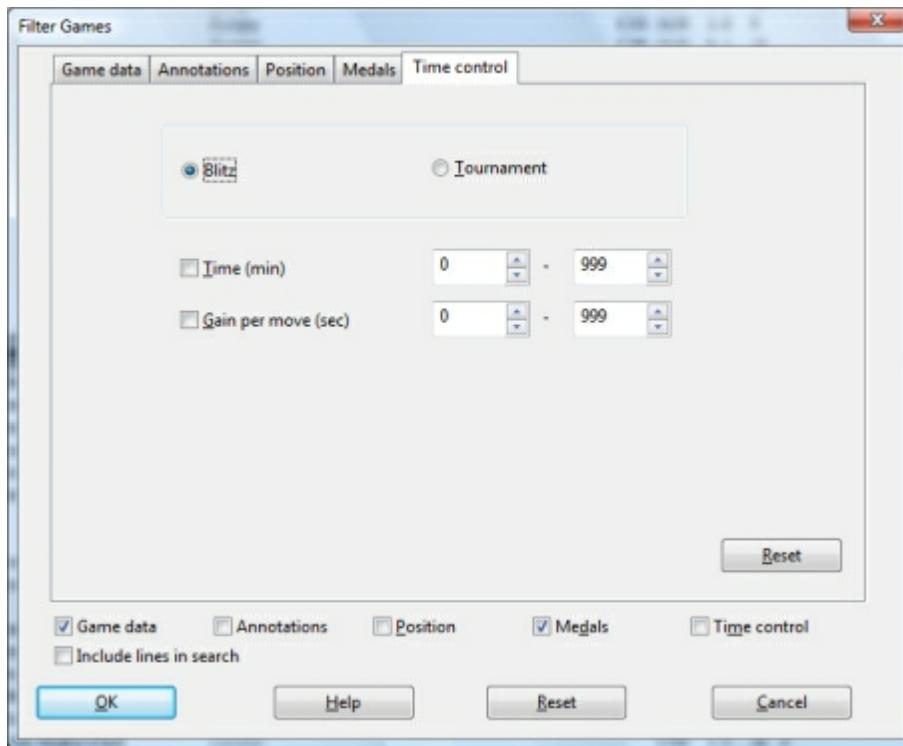
Use this command to open the Filter Games dialog. Click the "Medals" tab to search to search for games which were marked as being especially interesting. The medals include categories such as novelty, pawn structure, attack, defence, sacrifice, blunders, etc.



You can search on multiple categories. Note that the program will retrieve games in all marked categories.

3.4.14 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.

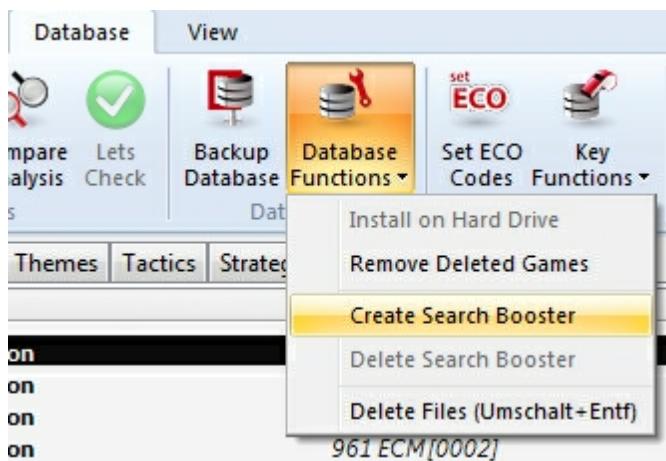
Note: You find the database with your games from playchess.com in "My Documents\ChessBase\MyInternetGames.cbh".

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.

3.4.15 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.

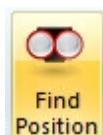
The program will offer to create a search booster for a large database which doesn't have one. You can also use this command to delete the booster files.

3.4.16 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.

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.

3.4.17 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).

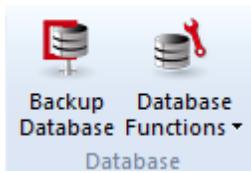


All ChessBase programs can open and unpack these archive files into a normal database.

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.

3.4.18 Copy database to hard disk

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.

3.4.19 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.

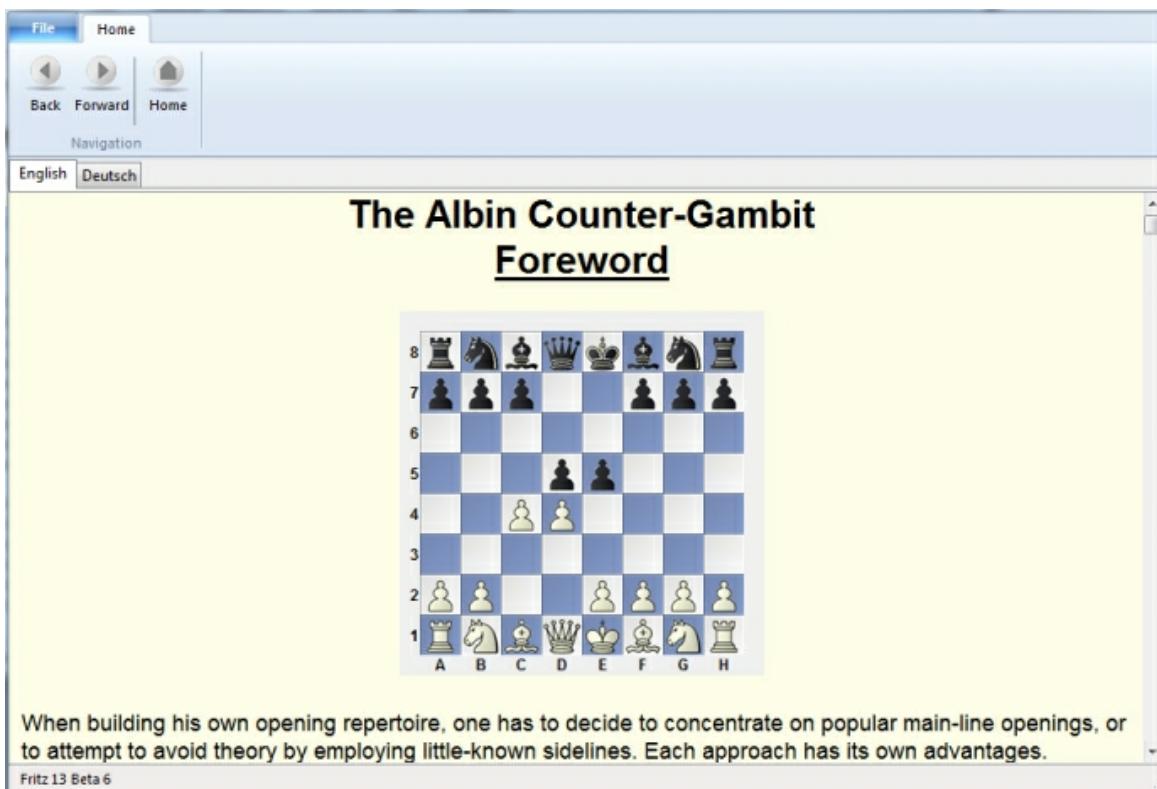
Here again it's best to create the .CBV file in a different folder.

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 -- 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).

3.4.20 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.



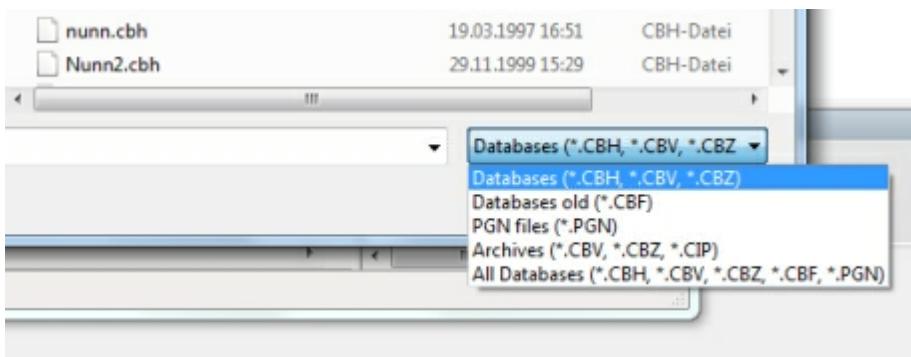
Fritz 13 Beta 6

This is an example of a database text from ChessBase Magazine,. When you click a video icon the sequence is replayed for you. ChessBase Magazine usually includes up to an hour of video.

Database texts are only available in the CBH database format.

3.4.21 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.



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.

3.4.22 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.



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.

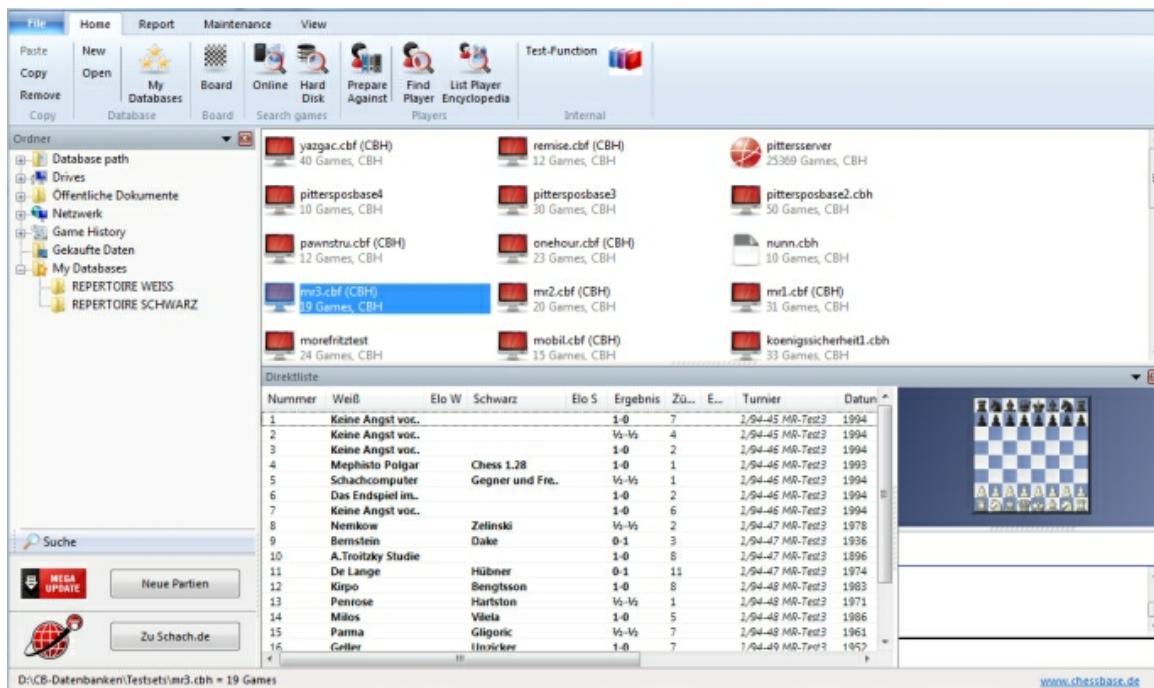
ChessBase Magazine also contains exciting multimedia reports from current tournaments, private interviews with top players, and video commentary of their games.

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.

3.4.23 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.



This is what ChessBase give you beyond the functions of this program:

- ▶ Parallel operation on many databases and games, easy copying of any number of games via drag & drop, navigation between databases in the "database window".
- ▶ Powerful search functions, e.g., material distribution, moves, manoeuvres, sacrifices, and structures. Creation of search boosters to drastically speed up the search.
- ▶ Access to super-fast players, annotators and tournament keys. Endgame keys.
- ▶ Players encyclopedia with data on all rated players and thousands of portraits.
- ▶ Input text with the built-in WYSIWYG editor, with hypertext functions (load pictures, jump to games, play multimedia files, etc.).
- ▶ Create full openings reports in any position with a single mouse click. The report contains all important historical and current GM games, all critical continuations,

repertoire recommendations, typical plans, etc.

- ▶ Create player portraits at a click of the mouse, including photos, Elo development, best tournaments, openings repertoire, great combinations, commentary, mate combinations, etc.
- ▶ Automatic elimination of doubles, sort games according to different criteria, powerful clipboard functions.
- ▶ Full administration of your correspondence chess games, with printing of postcards or letters.
- ▶ Advanced printing functions, e.g. ECO-style printing of openings surveys. Creation of ASCII, RTF and HTML files, with diagrams, ideal for tournament reports on the web.
- ▶ Creation and maintenance of theme keys, access to tactical and strategic motifs. Sophisticated theme keys are included and can be modified with ChessBase.
- ▶ Copy variation trees from one game to another with drag & drop.
- ▶ Enter spoken commentary to game moves and training positions. Design full training courses.
- ▶ Extensive statistical displays, e.g. of players: most successful tournaments, openings preferences, best and worst results against specific players, etc.
- ▶ Integrity test for damaged databases.
- ▶ Easy global editing of game data, e.g. to standardise players' and tournament names.

Full information is available at our web site: www.chessbase.com.

3.5 Analysing games

3.5.1 Infinite analysis

Menu: Home Infinite analysis (or Alt-F2)

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.

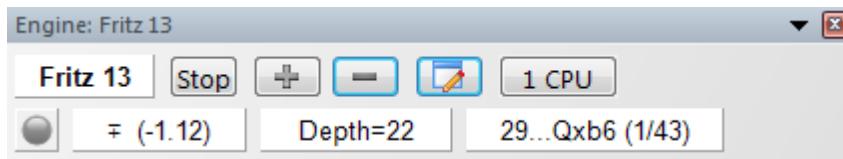
There is also a button in the toolbar at the top to start and stop infinite analysis.



See also Game analysis with Let's Check ..

3.5.2 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.



In this example the evaluation of the position is -+ 1.12, i.e., well over one pawn. This is always the case: positive values favour White, negative values favour Black.

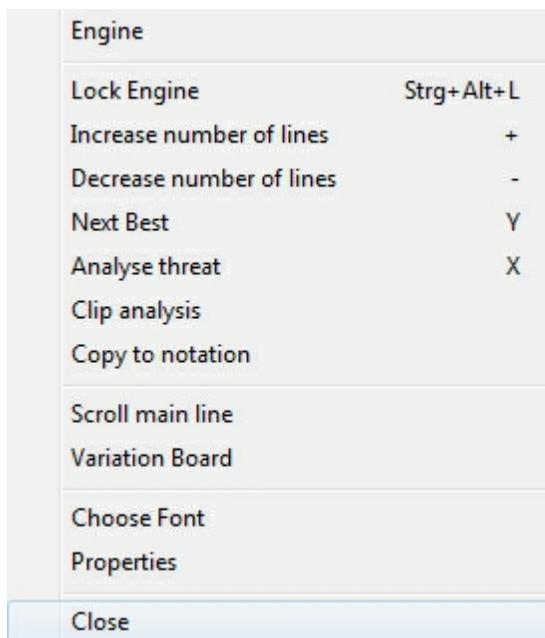
In addition to the precise pawn values, the evaluation is also given in standard chess symbols:

- = 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

3.5.3 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.



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.

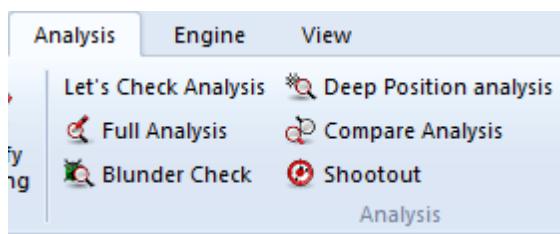
At the top of the engine windows you can see the best alternative moves, shaded grey. „Look for a better move“ tells the engine to search for moves that have a higher evaluation.

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.

3.5.4 Full analysis

Analysis – Full analysis

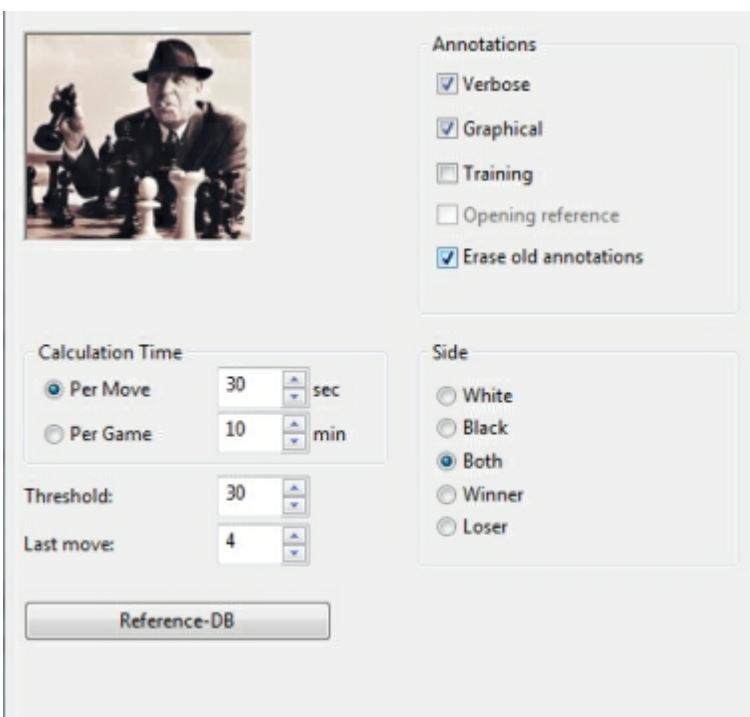


This is a very powerful function which has repeatedly won awards (specifically in 1996, 1997 and 1998 the Herschberg Award of the International Computer Chess Association) for the best computer generated commentary of a chess game.

The program not only annotates games in very high quality and in natural language, it is also the only program that can identify tactical categories and “tries”. The latter are inferior moves which were not played but which are of great interest to human players. “Naturally White cannot capture the bishop because of...” is typical for the kind of didactic commentary you will get.

The evaluation profile also gives you a clear picture of how the game developed and when decisive mistakes were committed. Remember that you can click on any place in the evaluation profile to jump to that position in the game.

You can call up the automatic analysis for the game loaded on the main screen, but you can also use it in the database window. There you can select several games for analysis.



In the dialog box there are a number of different options. If you simply click "OK", the analysis will start. You can stop the automatic analysis by clicking the "Stop" button that appears in the menu bar.

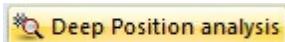
These are the options you have:

- ▶ **Calculation time per move:** This is the minimum time the program will spend on a move. If it creates variations, the same amount of time is spent on each move of the main line. Naturally, the more time you allocate the better the quality of the analysis.
- ▶ **Calculation time per game:** Set a rough total time in minutes for analysing the whole games.
- ▶ **Threshold:** Here you specify when the program should consider a move 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 "Better is..." commentaries and variations will increase.
- ▶ **Last move:** This sets a limit for the analysis. Analysis always starts at the end of the game and goes backward, ending with this move (i.e., "1" = analyse from move 1 of game).
- ▶ **Reference DB:** If the program has access to a large database, it can generate some very interesting reference commentary, quoting recent games that are similar to the current one and identifying the novelty in it. Click the "Reference DB" button and show the database which database to use.
- ▶ **Storage:** This is relevant when you automatically analyse a number of games from the games list. the program

- ▶ **Erase old annotations:** Should the program add annotations to any that are already present in the game, or should it delete previous annotations and start with a clean game notation?
- ▶ **Verbose/Graphical/Training:** Normally the program annotates games with the help of variations and commentary symbols. If “verbose” mode is on it will also include commentary in natural language (“This throws away the game” or “Black must return material”). “Graphical” allows the program to include coloured arrows and squares in its annotations. “Training” makes it generate quiz questions like “How would the (inferior) move x be refuted?” or “Why didn’t White play x takes y?” These questions come up when you are replaying the game. The program will even set time allowances and award points for training positions.
- ▶ **Side:** Here you can restrict the analysis to the player of the white or black pieces, or to the winner or loser.

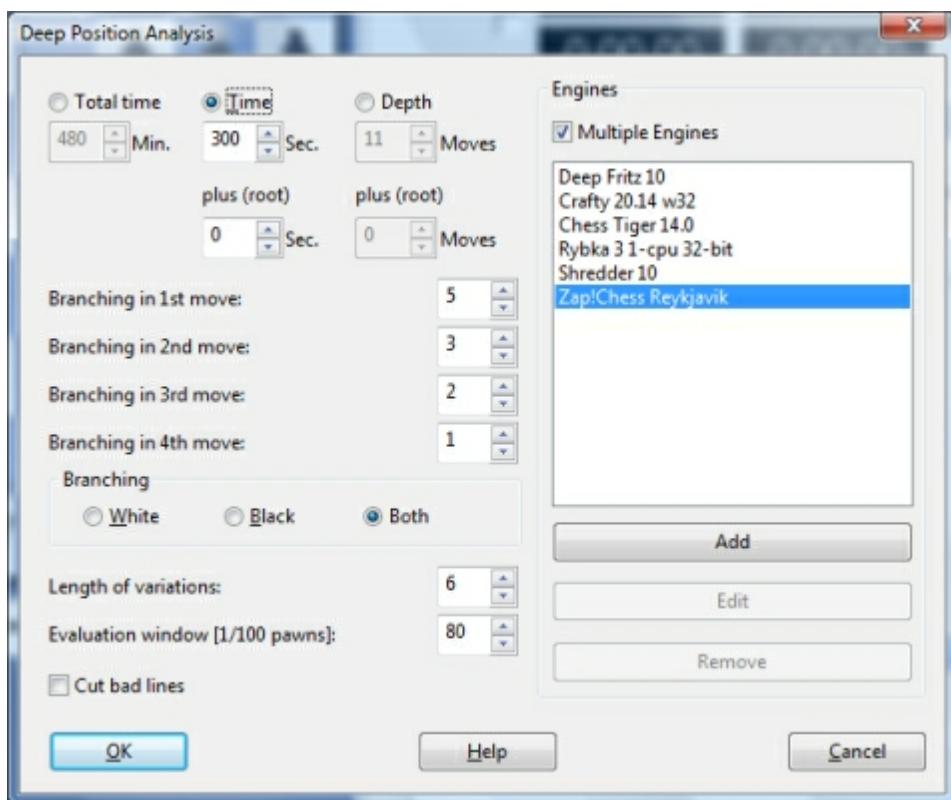
3.5.5 Deep position analysis

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 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.

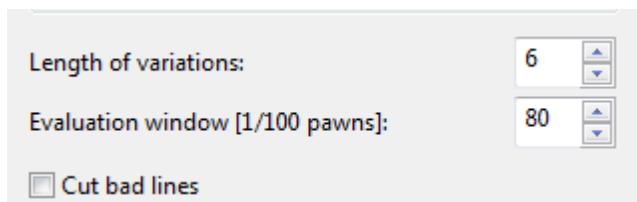
Length of variations: Sets the length of analysed variations.

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.

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.



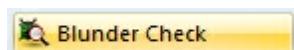
Cut bad Lines means that bad continuations, as recognized by the Alpha-Beta algorithm, are ignored and not examined any deeper.

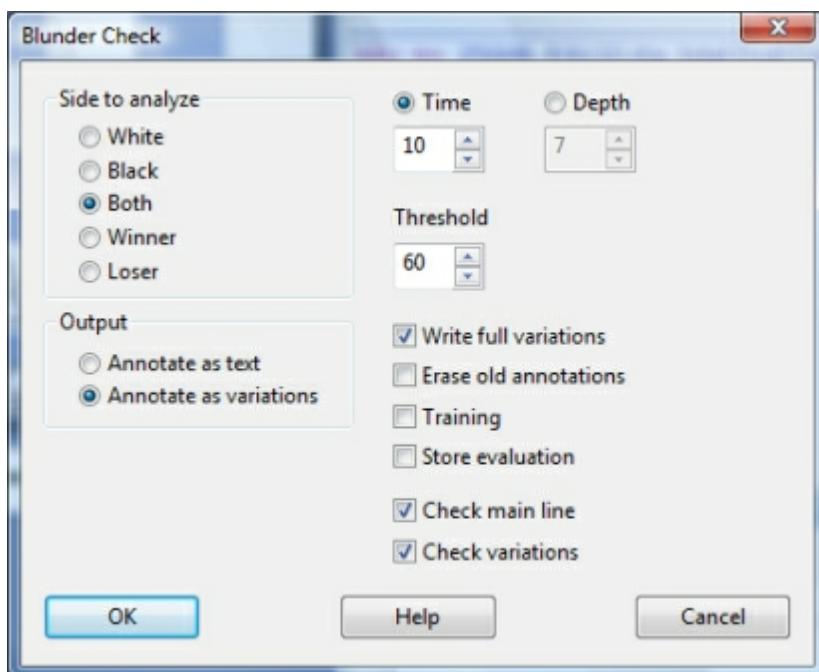
Note

- ▶ 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.

3.5.6 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 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

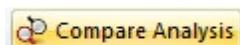
again as a fresh copy).

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.

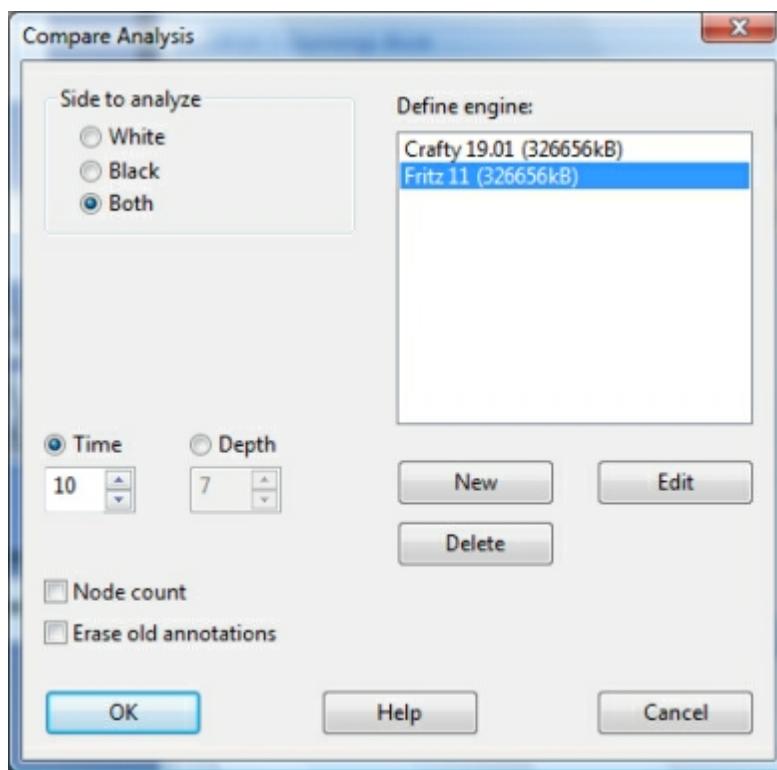
The name of the engine that was used in the blunder check is entered as a text commentary before the first move. If you analyse the game again with a different engine, the name of the engine with every new variation appears.

3.5.7 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:

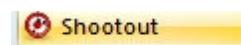
- ▶ **New** allows you to select engines from the list of all available engines.
- ▶ **Edit** allows you to change the settings for the engines already loaded (hash table size, variation colour).

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.

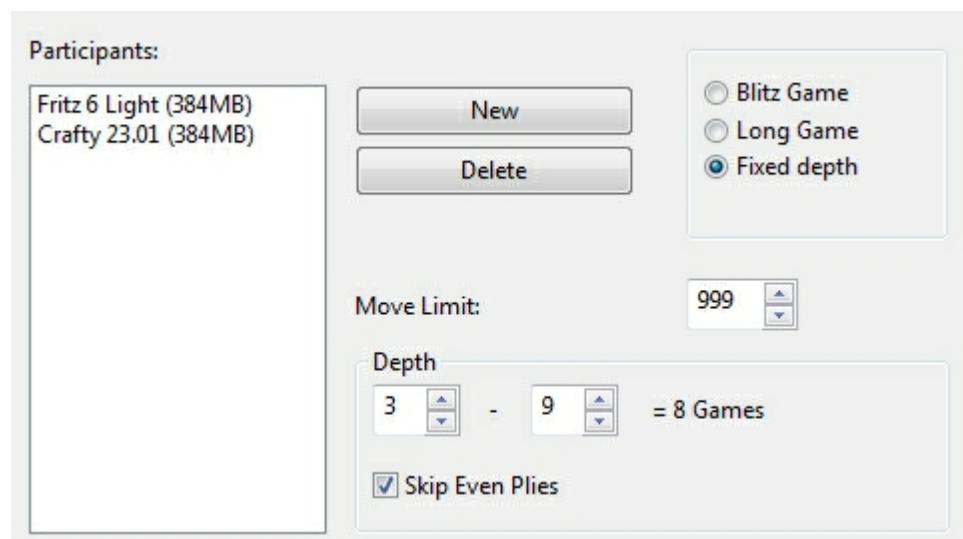
Please note: You can load an engine more than one at a time and then use Edit – Parameters to set different engine parameters. In this way you can find out how the settings affect the performance of the engine.

3.5.8 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.



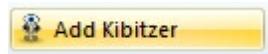
- ▶ **New** is used to include new engines in the shootout.
- ▶ **Delete** is used to remove them from the list.
- ▶ **Move limit:** You can set a maximum game length and average search depth for each move.

- ▶ **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.

3.5.9 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 can also right-click a kibitzer and "Close" it.

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

3.5.10 Visualize Search

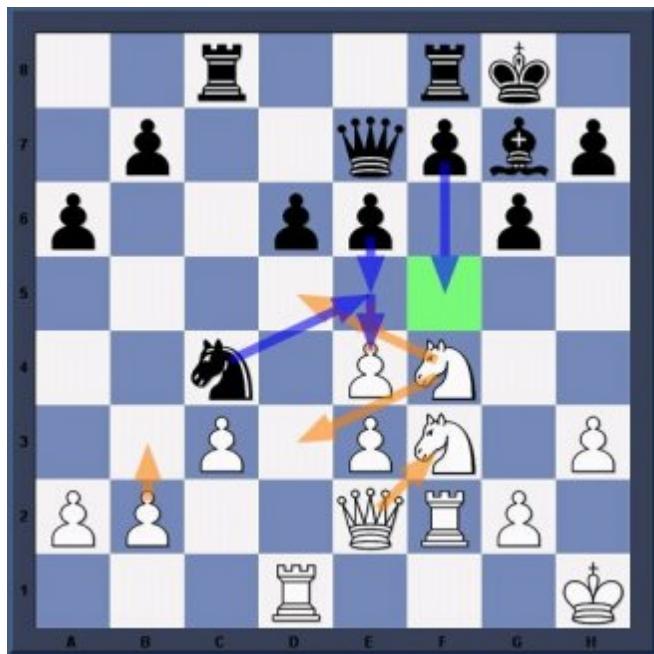
Menu File- Options - Engine Visualize Search



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 program 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 results will be.

Below the engine window the currently examined variation line is always displayed.

```
20.Sd3 Lh6 21.Sf4 b5 22.b3 Se5 23.Dd2 Tfd8 24.Sxe5 dxe5 25.Sd3 Dh4 26.Tf3
+ (-0.86) Tiefe: 15/15 00:00:00 73kN
< >
20.Sd3 Tcd8 21.b3 Sa3 22.c4 b5 23.Sf4 f5 24.-- fxe4 25.Sd4 Sxc4 26.bxc4 bxc4
B52: Sizilianisch (Rossolimo-Variante)
```

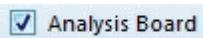
In this example the Fritz engine is thinking about how to react if 20.Nd3 is answered

by 20...Rcd8, even though the best line is 20...Bh6. The advantage of this display is that it is kept up to date even if the best line remains unchanged for a long time.

3.5.11 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.



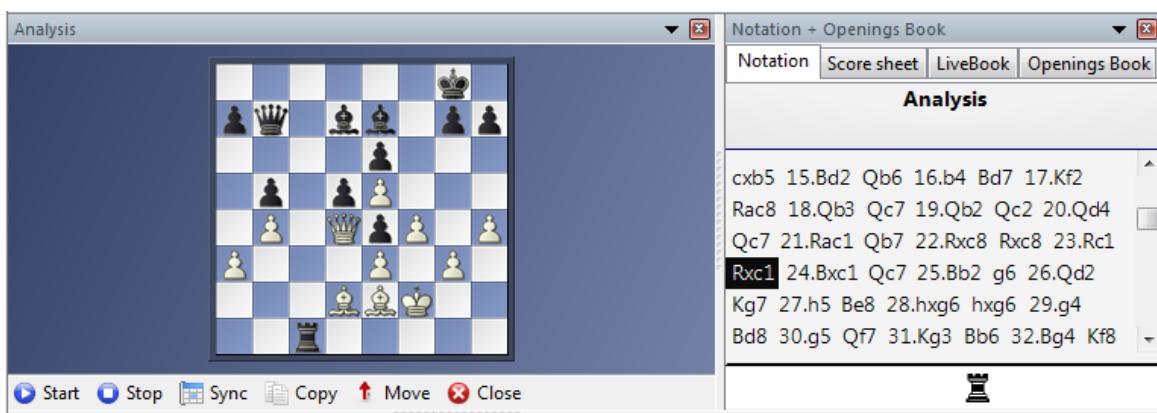
The analysis board appears as an extra "pane" in the board window and can be used to analyse the game that is currently loaded. You can move the analysis board to a convenient place, as you can do with all the panes of the program – by grabbing the top of the pane and "docking" it on some other part of the screen.

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 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 Houdini and using an analysis 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.

3.5.12 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.

The screenshot shows a chessboard variation board on the right and a list of moves on the left. The moves listed are:

- ± (0.92) Depth: 8/24 00:00:00 220kN
- 29...Ra4+ 30.Kc3 Ra5 31.Bd6+ Ke8 32.Ne7 Ba4 33.b3 Bd7 34.Kb4 b6
- ± (0.89) Depth: 9/25 00:00:00 305kN
- 29...Ra4+ 30.Kc3 Ra5 31.Bd6+ Ke8 32.Ne3 b6 33.b3 Bd7 34.Bb4 Ra8 35.a4
- ± (0.79) Depth: 10/25 00:00:00 502kN
- 29...Ra4+ 30.Kc3 Ra5 31.Bd6+ Ke8 32.Ne3 b6 33.b3 Bd7 34.Bb4 Ra8 35.Rd6 Rb8
- ± (0.89) Depth: 11/29 00:00:01 920kN
- 29...Ra4+ 30.Kc3 Ra5 31.Bd6+ Ke8 32.Ne3 Bd7 33.b3 Ra8 34.Nf5 g6 35.Ne3 Rc8 36
- ± (0.88) Depth: 12/28 00:00:02 2045kN
- 29...Ra4+ 30.Kc3 Ra5 31.Bd6+ Ke8 32.Ne3 Ra8 33.b3 Rd8 34.a4 Rc8 35.Be5 Nd7 3i
- ± (0.87) Depth: 13/32 00:00:06 5405kN
- 29...Ra4+ 30.Kc3 Ra5 31.Bd6+ Ke8 32.Ne3 Ra8 33.b3 Rd8 34.a4 Rc8 35.Kb4 Rd8 3
- ± (0.86) Depth: 14/34 00:00:14 12524kN

Below the moves are VCR buttons: <<, <, >, >>.

You'll notice a set of VCR buttons below the variation board; these are your controls for playing through moves on this board.

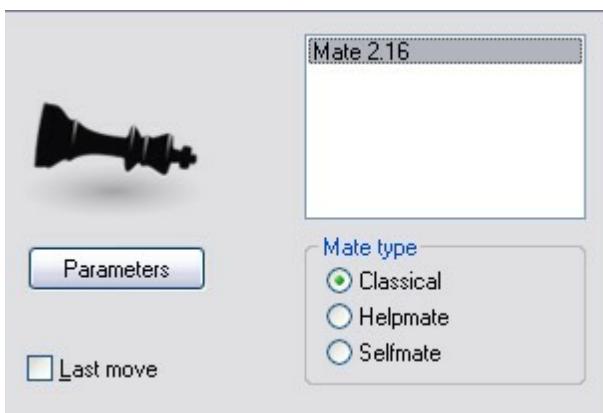
You can step forward and backward through the variation one move at a time by using the single arrow VCR buttons.

If you want to jump right to the beginning or end of a variation, you can use the double arrow buttons for that purpose.

3.5.13 Chess problems, mate search

Home - Levels Mate search (or Ctrl-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, which is usually obvious, should be included or not.

3.5.14 Let's Check

3.5.14.1 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 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 energy, both of which are finite resources.

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 ..](#)

[Online Book ..](#)

[Analysing ..](#)

[Game analysis ..](#)

[Contribute Engine ..](#)

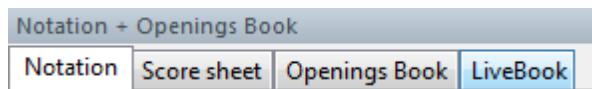
3.5.14.2 LiveBook

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.



The information about the position is displayed in columns.

Move	[%]	Evaluation	Games	Result	Elo-Av	Date	Visits
1.e4	47	+0.11	590069	54%	2427	2011-Sep-21	639004
1.d4	35	+0.16	468535	56%	2442	2011-Sep-21	478036
1.Nf3	10	+0.14	130680	55%	2437	2011-Sep-21	132866

- **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.

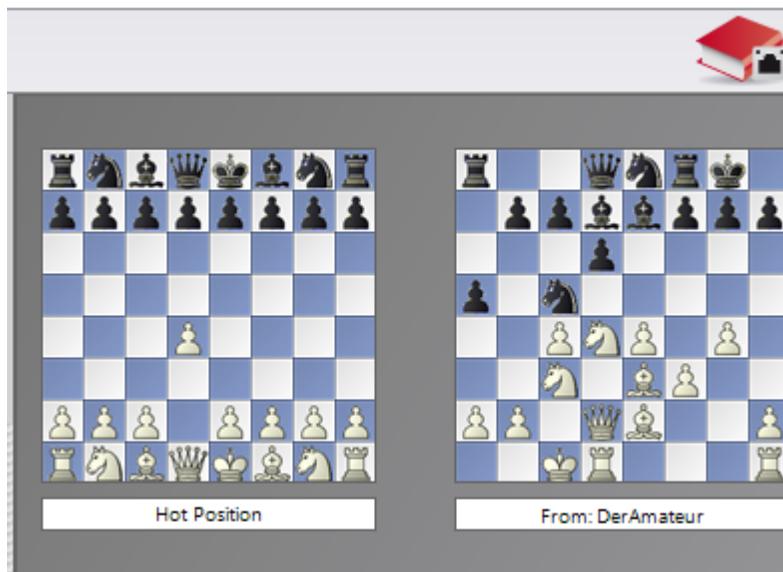
Anyone can add his own moves to the LiveBook, sensible or not. Just like a human

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

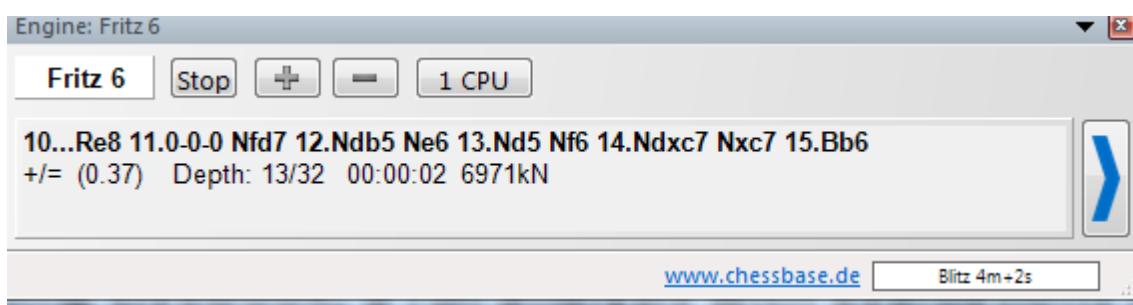
In the LiveBook tab there are two miniature boards.



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.

3.5.14.3 Start Let's Check

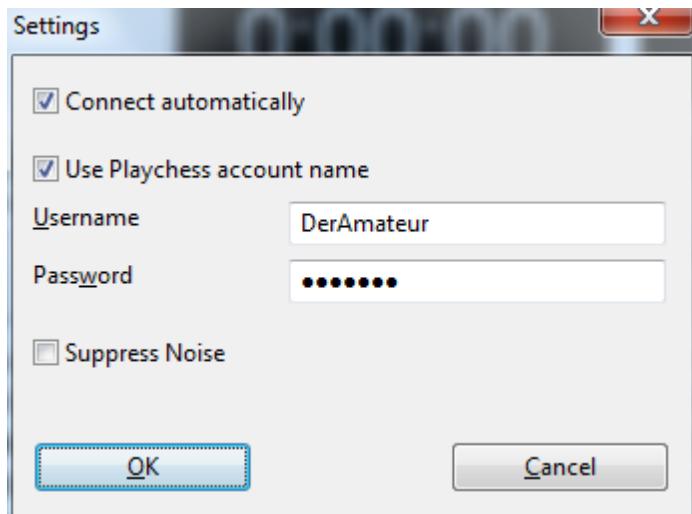
Click on the large blue right arrow in the engine window to start Let's Check.



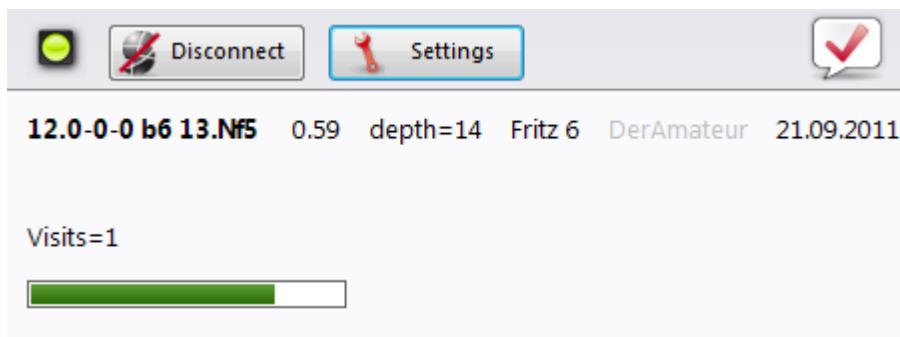
Alternatively you can start the analysis with the menu *Engine - Let's Check*.



Click on „Settings“ to enter login details for the chess server to add your name to your analysis.



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

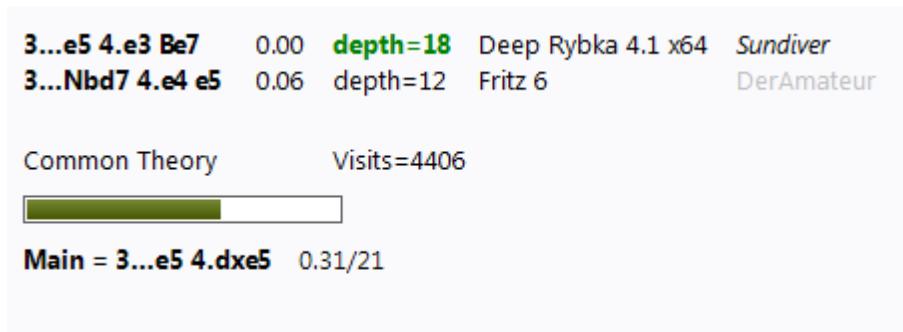
variation is not deleted, it just drops down to the second place.

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 higher this number is, the more trustworthy the information is.

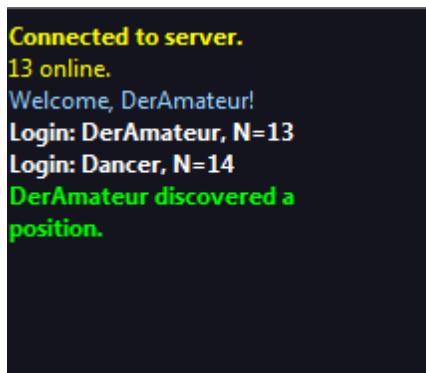
The window also displays whether the position is standard openings theory (main), the number of visits and the main variation.



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)
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.

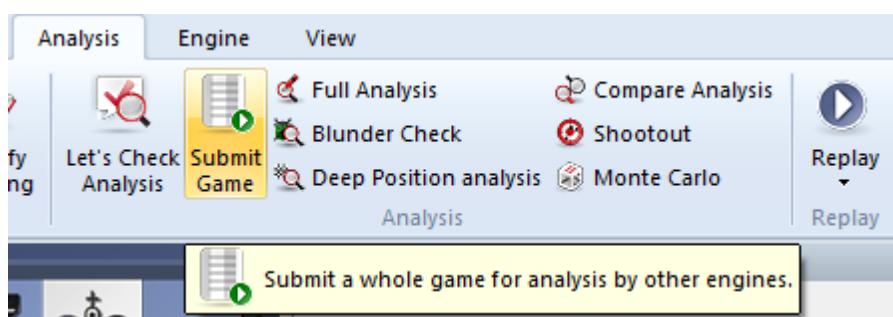


The entry "**My Line**" has to do with the variation that has been discovered (3 half moves) and is currently being displayed in the Let's Check window. The position's discoverer is stored separately and has nothing to do with this information.

The evaluation of the analysis is also displayed.

3.5.14.4 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.



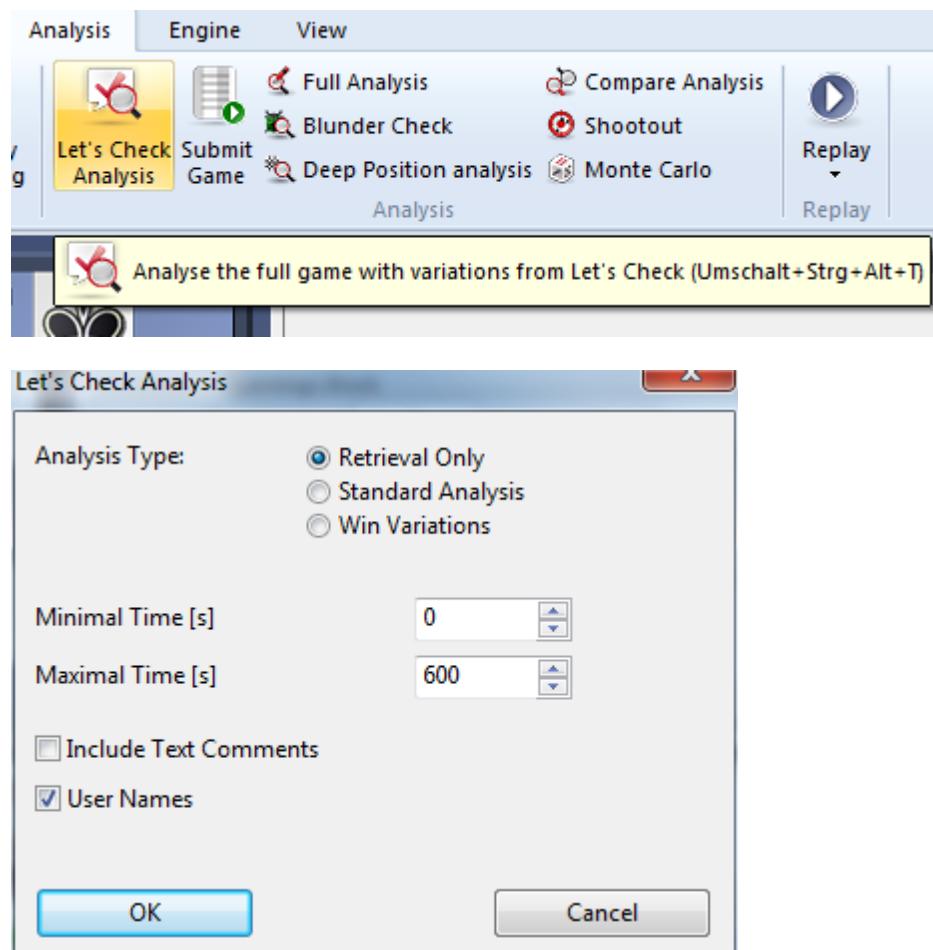
The condition for this is that you have already won enough analysis credits by contributing your own engine. The credits system achieves a balance between giving and taking analysis power. For every position that you analyse while contributing your engine you win 1 credit. If you analyse a complete game 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.



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.

3.5.14.5 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.

3.5.14.6 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.

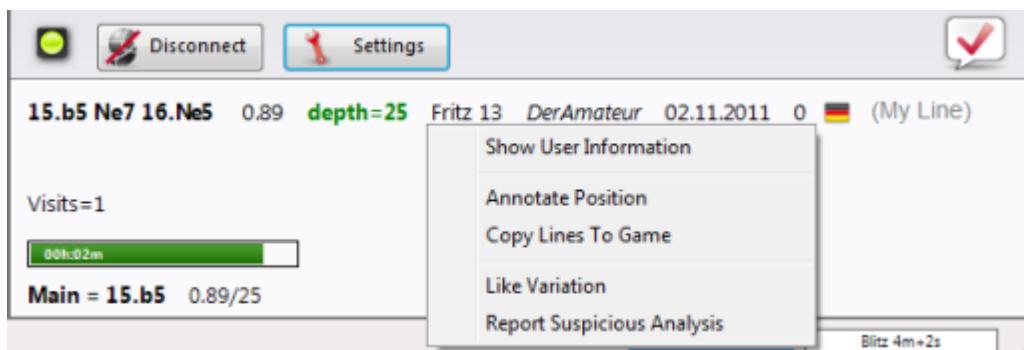
When there is nothing left to win the depth goals for a position have been reached and the message "Deep Analysis" appears in the Chat window of the Live Book window.

3.5.14.7 Let's Check Server Statistics

You can view the statistical information in real time at any time.

3.5.14.8 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 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.

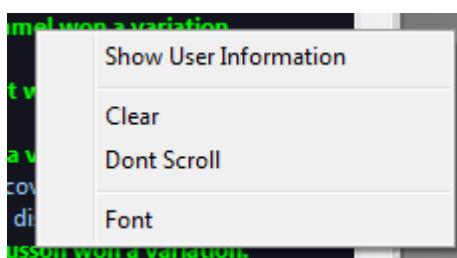
3.5.14.9 Information in the Chat window

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.



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?

BrentMagnusson won a variation.

(michael555)

BrentMagnusson won a position

(Gormonde)

Gerald Rummel discovered a position..

Pacificrabbit won a variation.

(reenu1)

This message tells us that 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.

wok won a variation. (Mapi)

Deep Analysis BrentMagnusson,

Bonus = 0.09p

Sober_Knight won a variation.

(Lutz)

The user also receives bonus points for the ranking list as described.

3.5.14.10 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.

Text	Author	Likes	Unlikes	Date	Weight	Language
The usual "mess" of a chess 960 game :-)	Robot 2	3	1	14.09...	●	GB
"Die Grundstellung ist remis" (Kasparov)	DarthVader	9	0	13.09...	●	DE
Offener geht es nicht! Da e2-e5 nicht existiert, ist dieser Doppelzug zweit..	Radost	1	0	15.09...	●	DE
Esto me suena... ¿Qué era lo que había que jugar aquí?	Salvamento	1	0	20.09...	●	ES
Eine für beide Seiten schwierige Position.	Pitters	3	0	08.09...	●	DE
"Durch diese hohle Gasse muss er kommen." - Friedrich Schiller	Michael Enderle	3	0	17.09...	●	DE
Alle Ranglisten werden am Tag der Erstveröffentlichung zurück gesetzt,..	Piper	1	6	13.09...	●	DE
"He must come through this hollow way, no other path leads to Küssnac..	Supermichi	1	0	18.09...	●	ES

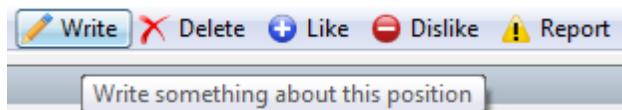
Write Delete Like Dislike Report

Other users can rate these commentaries with either "**Like**" or "**Don't Like**".

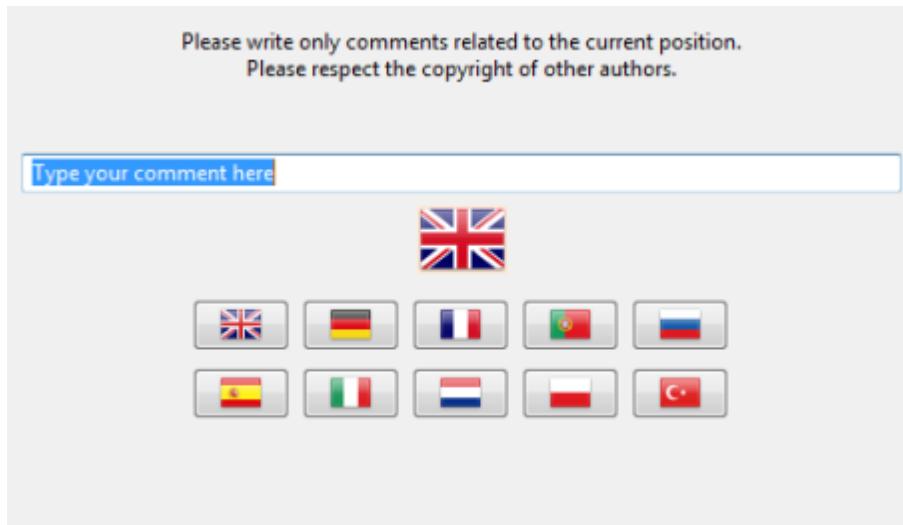
Commentators who are often praised are weighted more and their texts are moved to the top.

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.

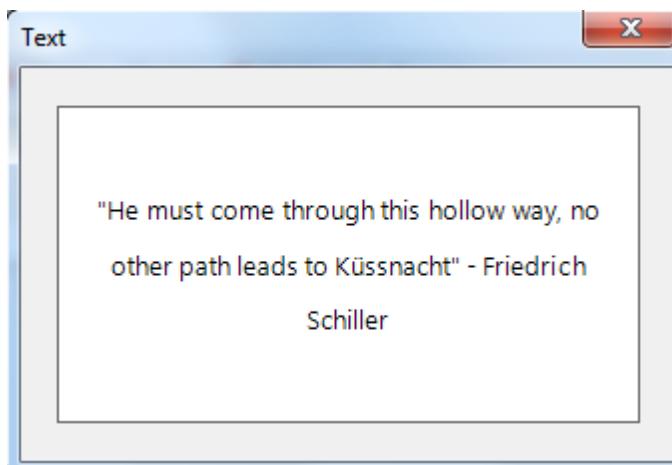


Clicking on a flag selects the language.



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".

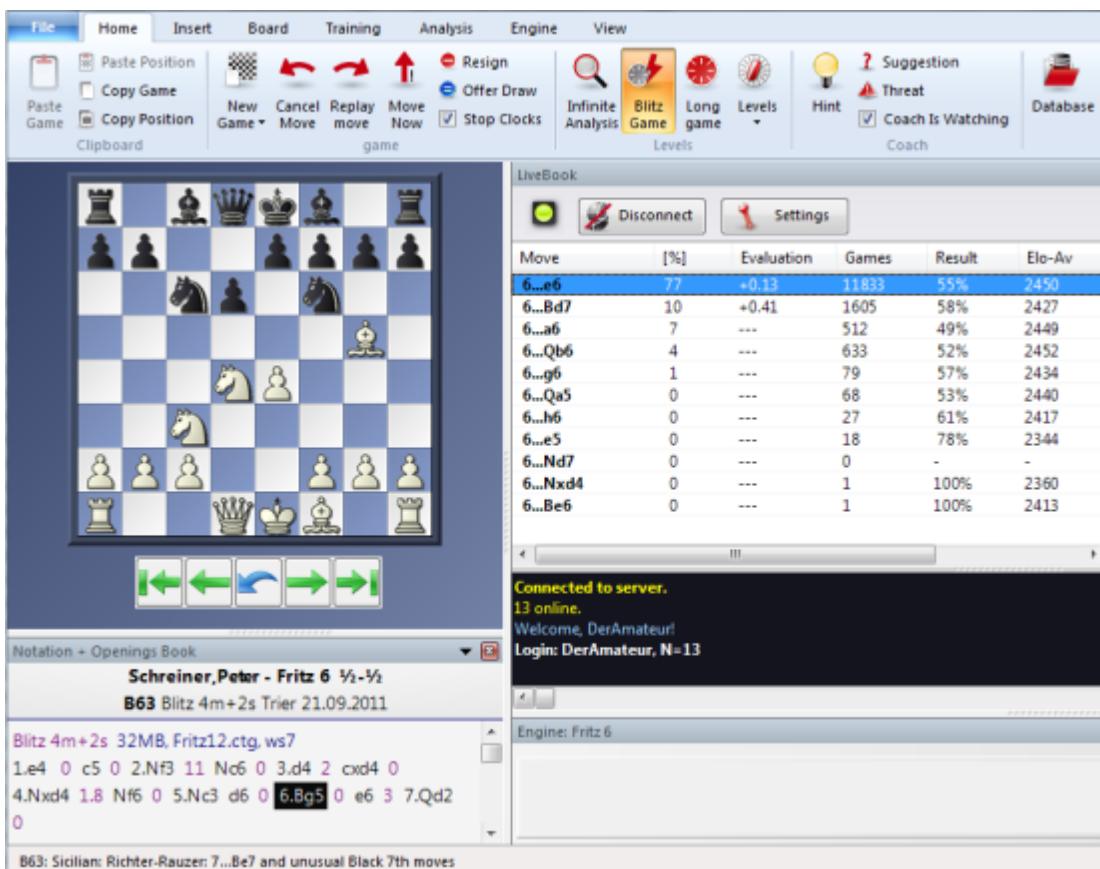
3.5.14.11 Using the LiveBook as the Openings Book

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 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.



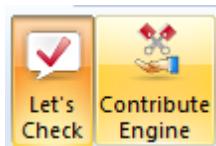
The LiveBook is based on an enormous online database and the computer analyses of other users. This means the program is playing with the optimum theoretical conditions in the opening phase.

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.

3.5.14.12 Networked Analysis

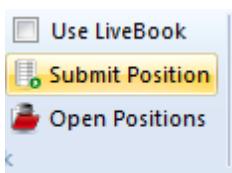
Whoever wants to easily climb up the Let's Check Honour List should temporarily "contribute" his engine to the community. The system thinks like one global worldwide chess brain about positions that seem to be interesting to people at the moment, or which may become interesting soon. If you have logged 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.

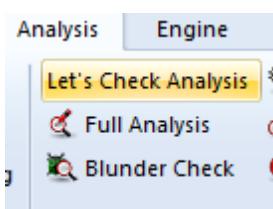
It is possible to abort this function at any time. You can do this by closing the window, starting a new game, or by clicking on the "Contribute Engine" button a second time.



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.

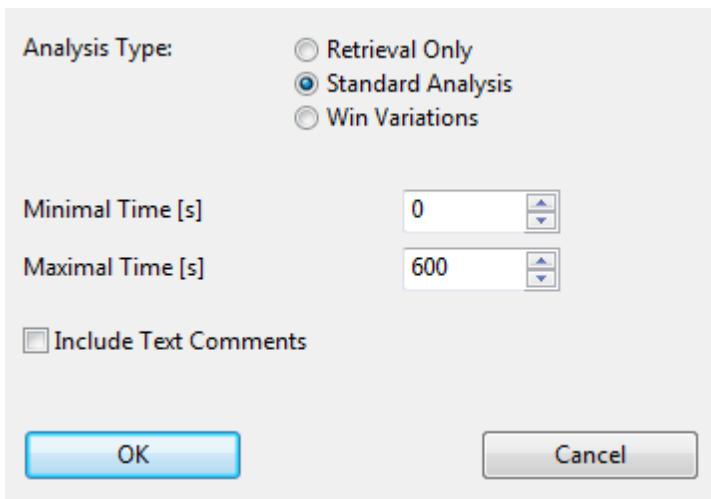
3.5.14.13 Game analysis with Let's Check

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 three types of analysis:



- 1) **"Retrieval Only"** just fetches known variations from the server and does not make any calculations.
- 2) **"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.

3) "Win variations" calculates until at least one variation has been won.

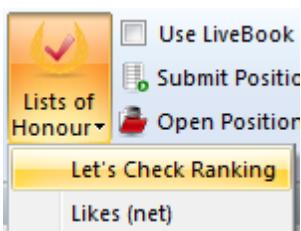
The *minimum and maximum* calculation time per move limit the calculation time.

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.

3.5.14.14 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.

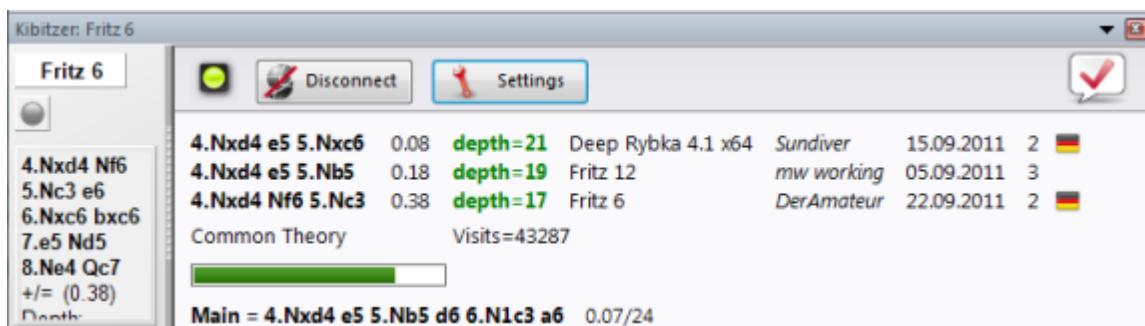
"Likes" shows a list of the rated commentaries of a user.

User	Likes (net)
DarthVader	7
Supermichi	4
Radost	4
Michael Enderle	3
Salvamento	2
Kendo	2
Matthias	1
André	1

3.5.14.15 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.

3.5.15 Common questions Let's Check

3.5.15.1 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.

3.5.15.2 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.

3.5.15.3 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 2014.

3.5.15.4 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.

3.5.15.5 What engines are allowed?

Every engine that can be used in the User interface can be used for Let's Check.

3.5.15.6 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 evaluations of older engines will disappear with time.

3.5.15.7 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.

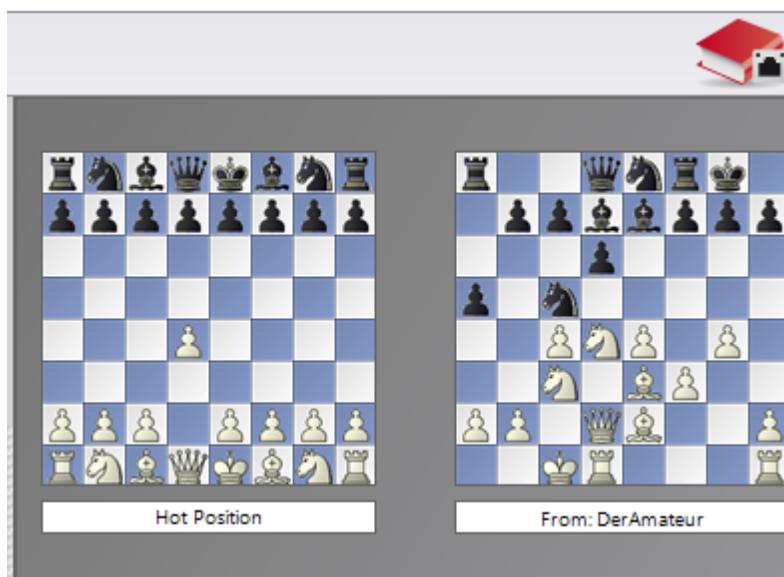
If you don't want to see any senseless moves you should check the option "*Hide rare moves*".

3.5.15.8 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.

3.5.15.9 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.

3.5.15.10 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.

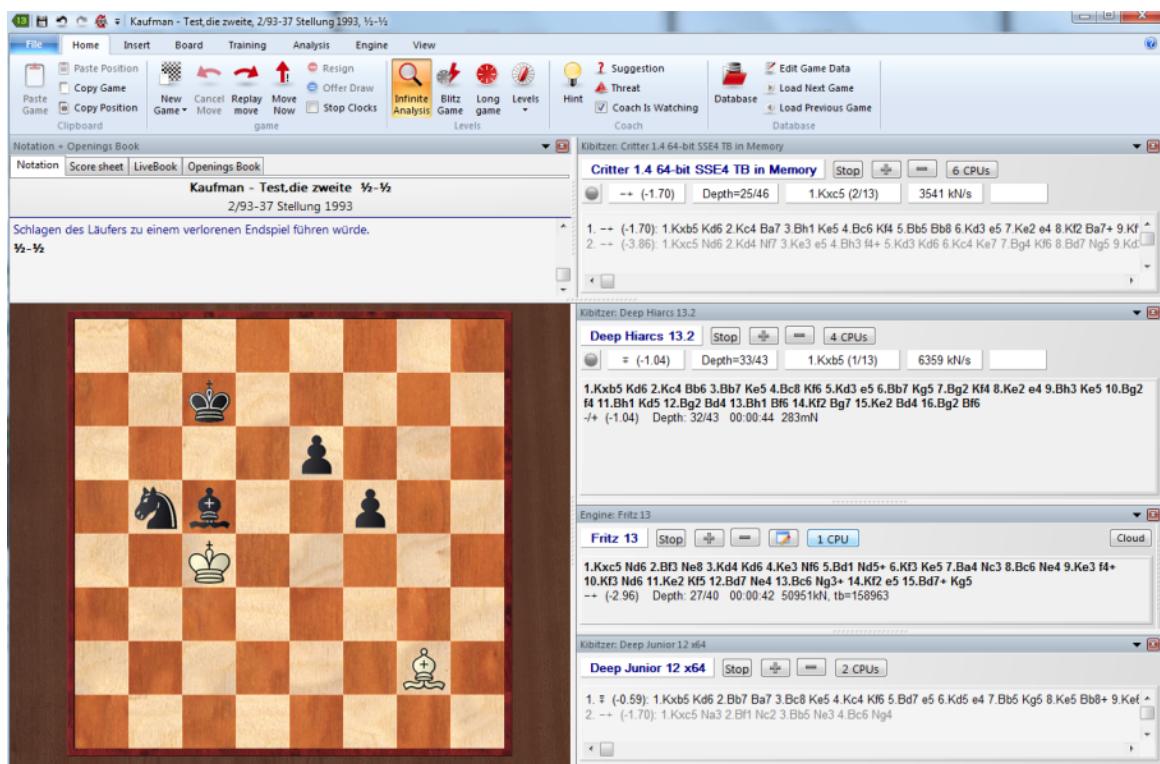
Administrators can correct spelling mistakes or delete comments if they violate copyrights or do not make a chess-related comment on the position. Copyright is deemed to have been violated if comments are taken from a source that exceed the amount of usually accepted quoting.

3.5.16 Engine-Cloud.com

3.5.16.1 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 resources 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. 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 resources, 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 resources 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.

3.5.16.2 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.

The screenshot shows the Engine Cloud interface. At the top, there's a menu bar with File, Home, View, and several icons for Ping Server, Use Engine, Offer Private Engine, Offer Public Engine, Check Ducats Account, and Provider Experience List. Below the menu is a toolbar with buttons for Ping Server, Use Engine, Offer Private Engine, Offer Public Engine, Check Ducats Account, and Font. The main area is a table listing engines. The columns are: Name, Provider, Experience, Machine, Nation, Speed, Threads+Hash, Cores, MN/s, Likes, Current Rate, Fix Rate, Booking Fee, Max Fix Time, and Waiting. The table lists various engines like Fritz 13, Deep Hiarscs 13.2, Deep Junior 12 x64, Komodo64 SSE Version 4, Komodo 4 SSE42 x64, Deep Rybka 4.1 SSE42 x64, Stockfish 2.2.2 SSE42 x64, Critter 1.4a SSE42 x64, and Fritz 13, along with their provider names and hardware details. At the bottom of the table, 'Houdini15a x64' by 'tryme' is listed. Below the table is a chat window with a message from 'tryme'. At the bottom right, there's a link to 'www.chessbase.de'.

The list is ordered into columns. By right clicking on a column header you can configure the list to your own requirements.

This screenshot shows a context menu for column optimization. The menu items are: Optimize column widths (highlighted), All Columns, Hide 'Machine', Auto Fit Column ('Machine'), and Hide all columns to right ('Machine' -> ...). The background shows a list of engines with columns for Experience and Machine visible.

The following information is offered in the columns of the List View.

Name	Provider	Experience	Machine	Nation	Speed	Threads+Hash	Cores	MN/s	Likes	Current Rate	Fix Rate	Booking Fee	Max Fix Time
Fritz 13	sundiver	★★★	Intel Xeon E31260L	DE	2.40 GHz	1 + 160MB	4/8(1)	2.08	3	Free	0,30	Free	60 min
Deep Hiarscs 13.2	ben	★★★	Intel Core i7 860	DE	2.79 GHz	4 + 400MB	4/8(1)	2.40	0	0,02	0,30	0,02	120 min

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 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 Cloud 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.

Deep Fritz 11	gfroberg	★	Intel Core i7 870	■	2.93 GHz	4
Houdini 2.0 w32	kjoeller	★	Intel Core2 Quad	■	2.33 GHz	3
Stockfish 2.2.2 JA SSE42 1C	sxb	★★	Intel Core i5-2430	■	2.39 GHz	1
Houdini 1.5a x64Michi	keimer	★	AMD Phenom II X4	■	3.31 GHz	5
Deep Junior 12 x64	ben	★★	Intel Core i5-2430	■	2.39 GHz	2
Deep Fritz 10	deramateur	★	Intel Core2 Duo E	■	3.00 GHz	2

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.

Deep Junior 12 x64	ben	★★
Fritz 10	deramateur	★
Fritz 13	sundiver	★★
Fritz 13	nag kings	★

This happens when there are several offers for an engine and there is a waiting list.

Waiting
In use
In use
-
-
In use
1 Waiting
In use
-

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.

Machine	Nation	Speed	Threads+Hash
Intel Xeon E31260L		2.40 GHz	1 + 160MB
Intel Core i7 860		2.79 GHz	4 + 400MB
Intel Core i5-2430M		2.39 GHz	2 + 500MB
Intel Core i5-2430M		2.40 GHz	1 + 512MB
AMD Phenom II X6 1090T, 16G		3.62 GHz	6 + 2048MB
Intel Core2 Quad Q8300, 3GB		2.49 GHz	3 + 192MB

There are various symbols to the left of the engine's name.

Deep Hiarcs 13.2	ben
Deep Junior 12 x64	ben
Komodo64 SSE Version 4	sxb
Komodo 4 SSE42 x64	tryme
Deep Rybka 4.1 SSE42 x64	tryme
Stockfish 2.2.2 SSE42 x64	tryme
Critter 1.4a SSE42 x64	tryme
Fritz 13	haschme

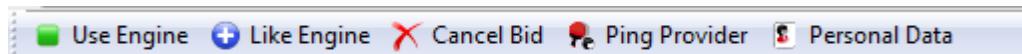
All engines marked with a green symbol can be used for analysis immediately, by double clicking on the engine's name

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.

Ping Provider This measures the speed of the provider's Internet connection.

Personal Data This opens the provider's „Personal Data“ menu.

3.5.16.3 Board window with provided engine

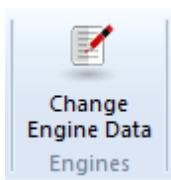
If you have made an engine publically available it is started in a separate board window.



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.



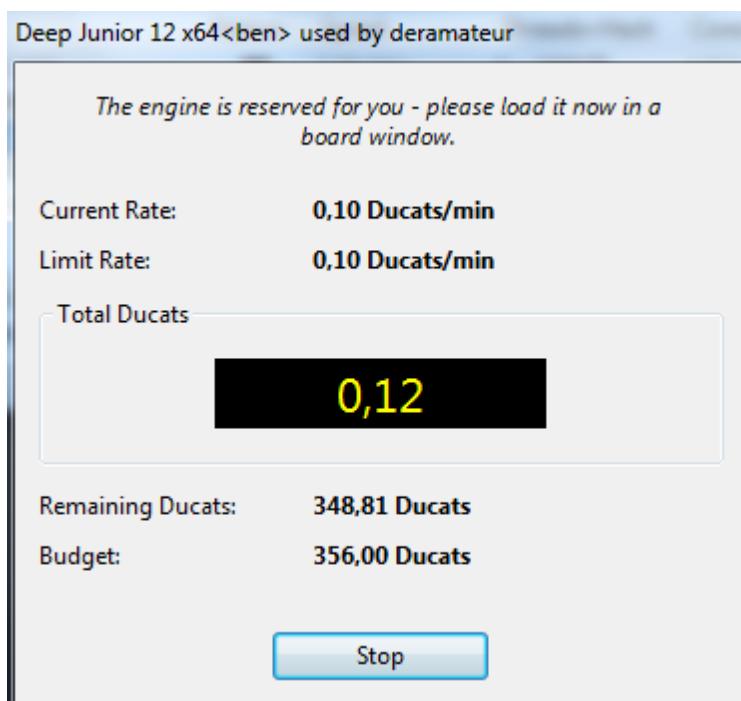
You can talk to the user in the chat window.



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.

3.5.16.4 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.

3.5.16.5 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 Houdini on the other computer that you want to use for the analysis, and select *Engine – Open Cloud Engines* again.



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.

3.5.16.6 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.

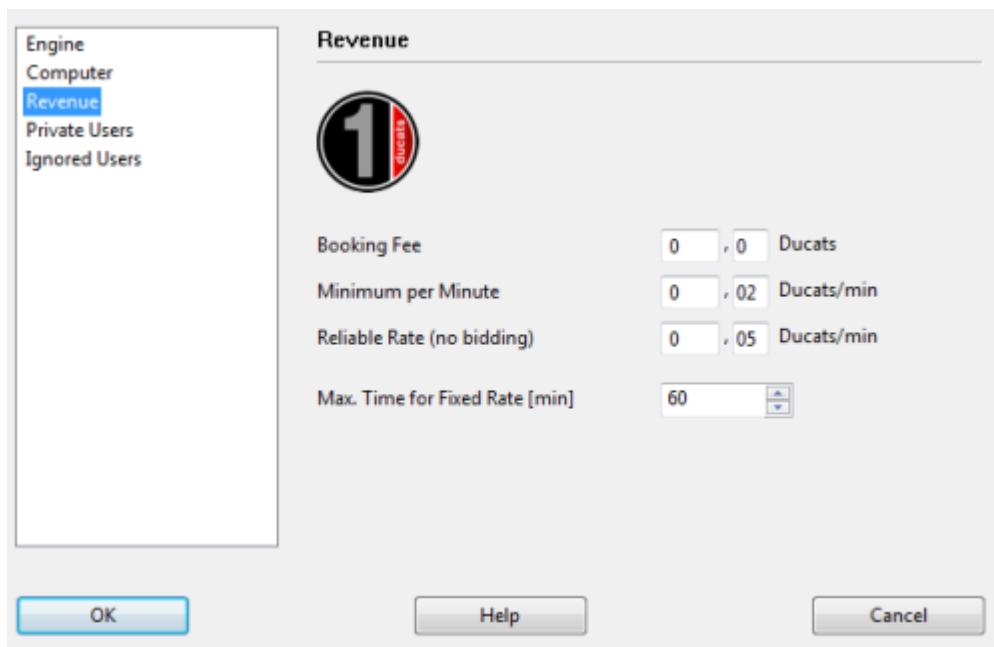
Booking Fee	Max Fix Time
Free	60 min
0,02	120 min
0,02	120 min

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.



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.



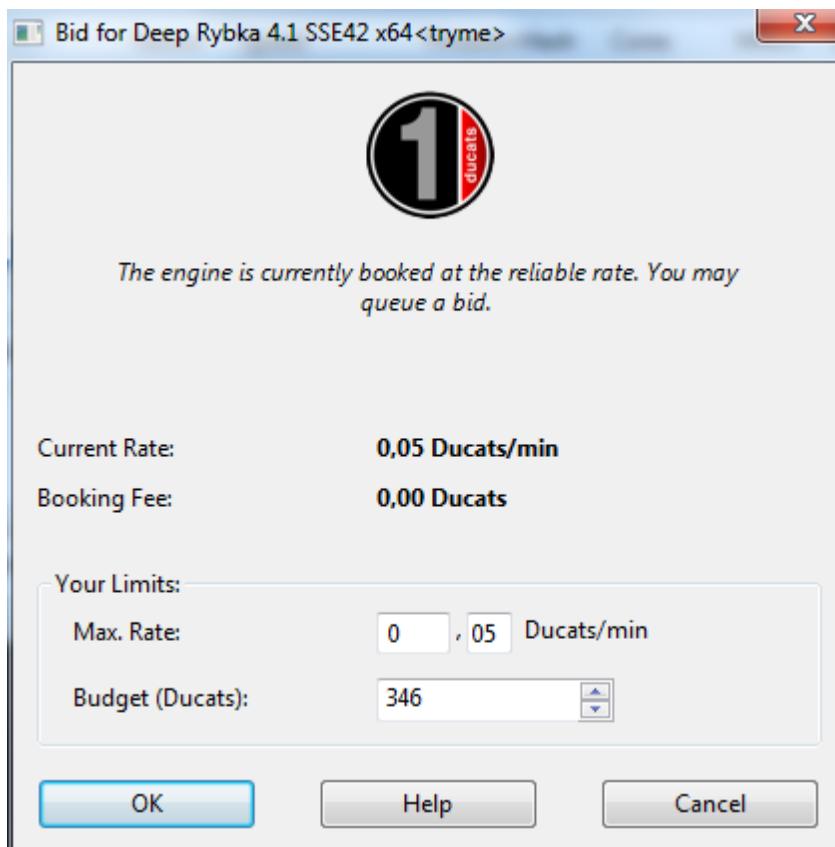
If an engine is being used a fee is added to the bid which is the same as the current price per minute. This is also the case if a bid is unsuccessful. This is to protect the user of an engine against destructive bids which are only intended to take an engine away from him. If a bid is unsuccessful the 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 opens 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.

Deep Junior 12 x64	ben	
Fritz 10	deramateur	
Fritz 13	sundiver	
Fritz 13	nag kings	

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.



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.

3.5.16.7 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**.

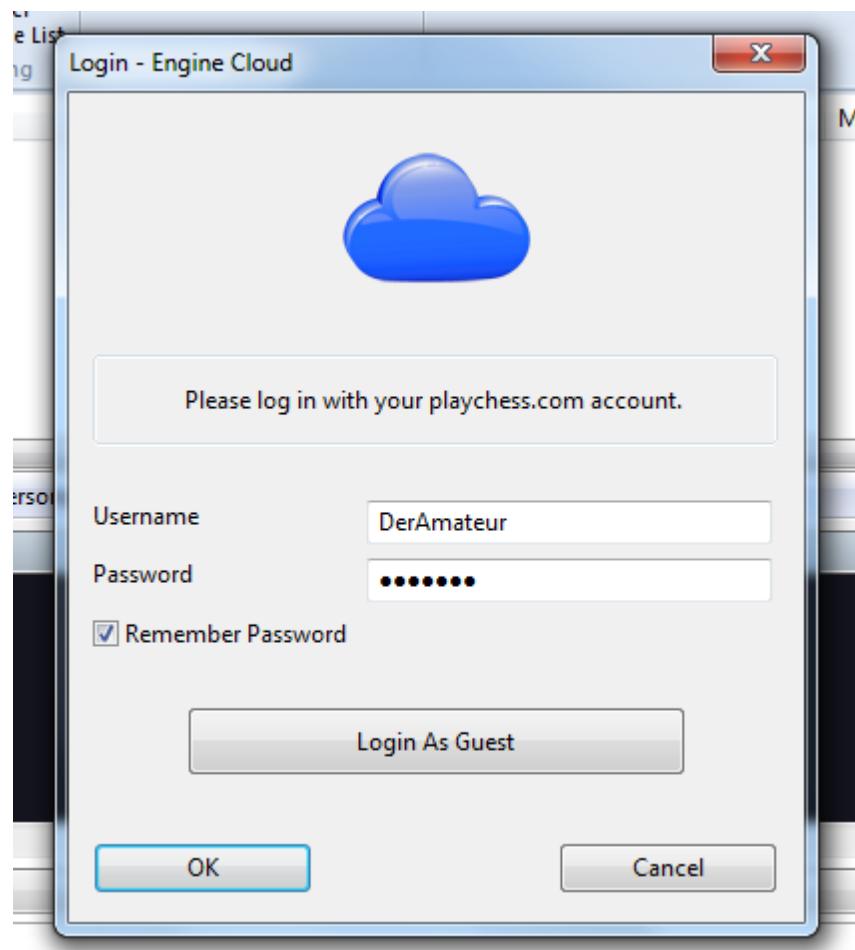
UCI engines can also be used as Cloud Engines. In the case of UCI engines **pay attention to the conditions of the license of the maker of the UCI Engine!** The

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.

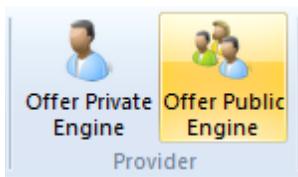


The next step is to log into the server with your existing Playchess.com account details.



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*.



Select an engine from the Load Engine dialog and confirm the selection with OK.

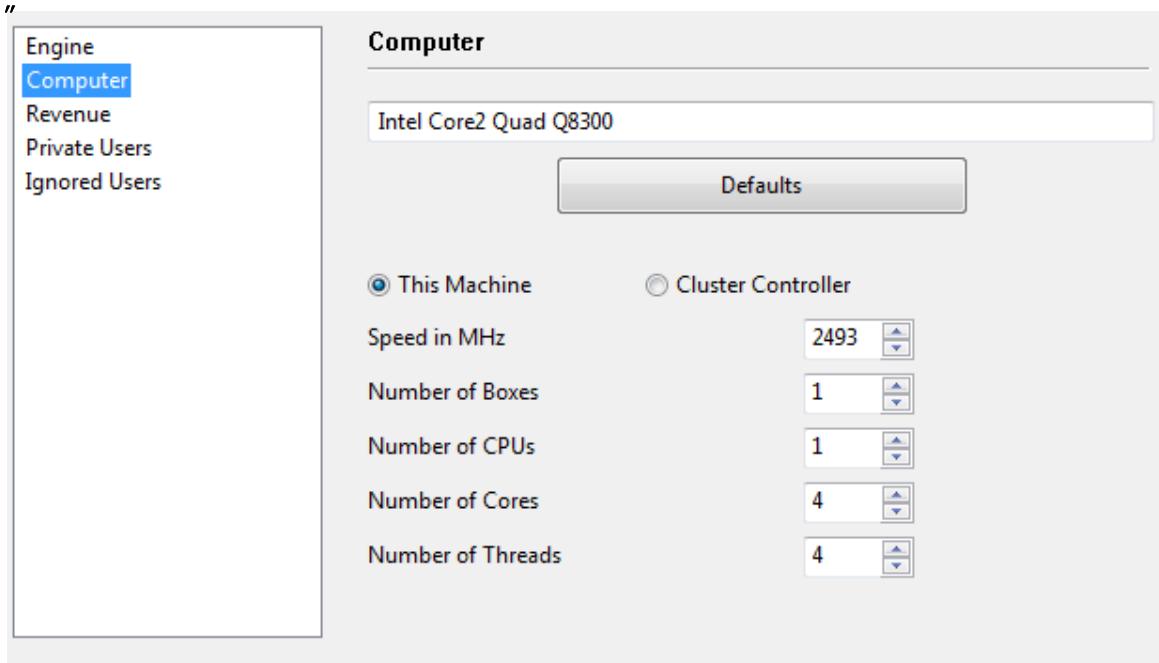
In the configuration dialog for the Cloud Engine you have selected there are the following options:

Engine

Engine Computer Revenue Private Users Ignored Users	Engine <i>Please check your engine software license that it is ok to process remote analysis tasks.</i> Nick Name: <input type="text" value="Slow Hiarcs"/> Author: <input type="text" value="Mark John Uniacke"/> Description: <input type="text" value="Deep Hiarcs Paderborn by Mark John Uniacke"/> Hashtable size (MB): <input type="text" value="192"/> <input type="button" value="▼"/> Web URL: <input type="text" value="http://www.fritzcloud.com"/>
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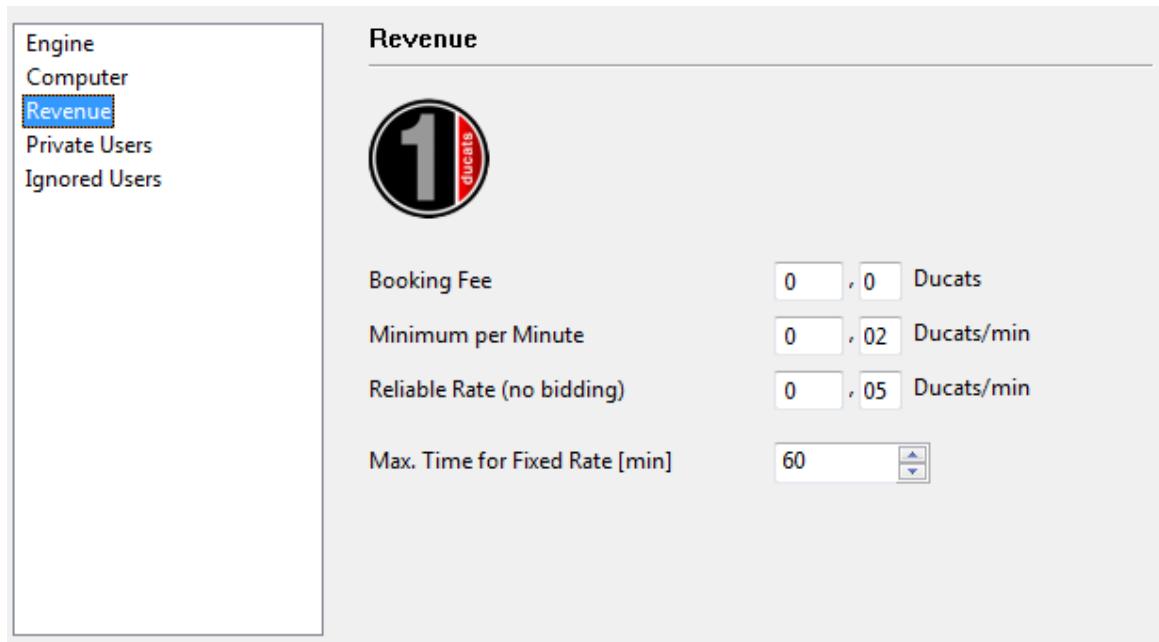
Here you can set the Informations for the used Chess engine.

Computer



This defines the settings for the hardware resources. *This Machine* copies the settings from the System Properties. By selecting *Cluster Controller* you can define your own settings for the resources 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.

„ 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.

Only private users can see this engine

It is also possible to prevent certain users from using the engine. To do this you have to tick the box *Activate ignore list*.

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 offering 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.

3.5.16.8 Summary of the auction system

It is important to understand the *difference between the providers and the users* in the Engine Cloud system.

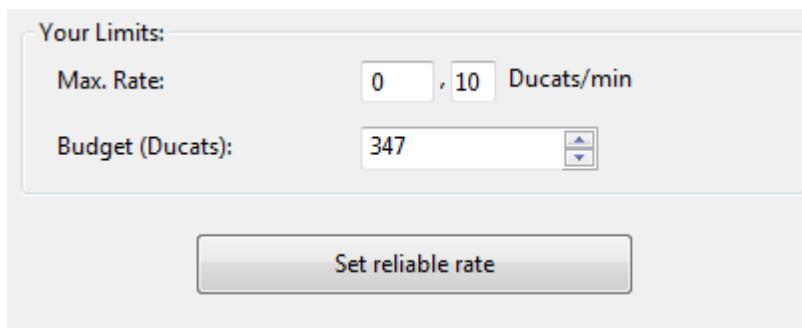
It is possible to be both a provider and a user at the same time.

Renting of a Cloud Engine for a fixed price

The booking fee plus a fixed price per minute has to be paid.

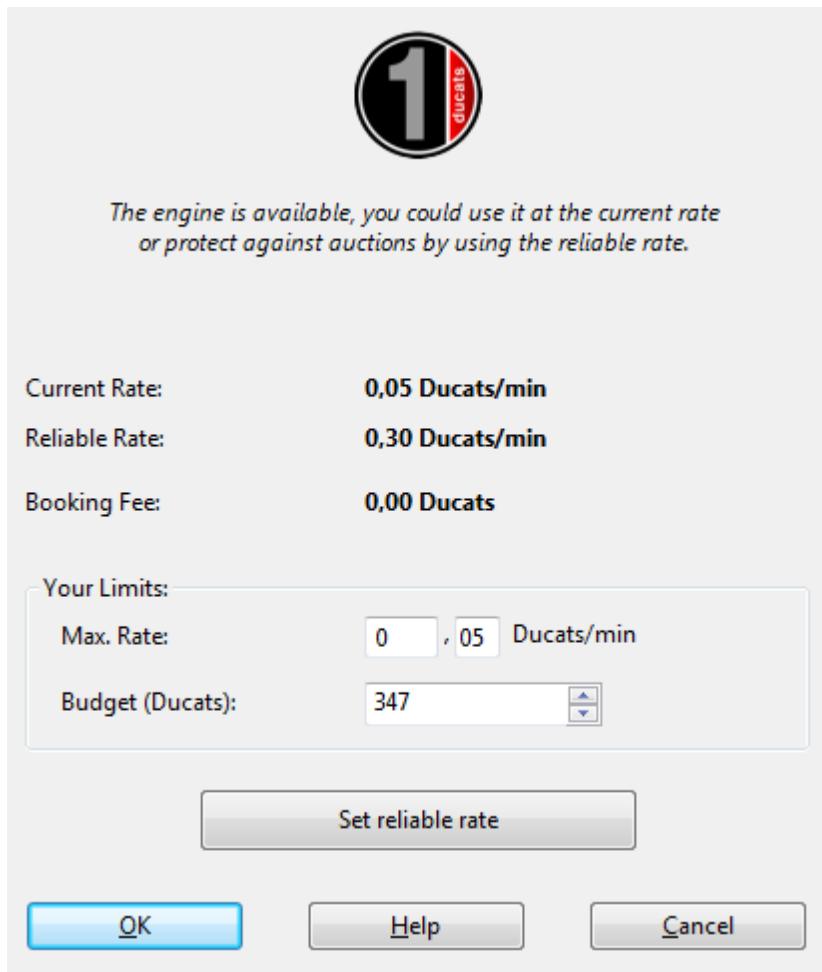
 If a red symbol is at the beginning of the row the engine cannot be taken away from the current user by outbidding him. den. Bids can still be made, but they will not be accepted until the current gives up the engine or his maximum time runs out. If the board window is open the engine starts to analyse this position automatically!

Normally there is a maximum time for renting the engine at the fixed price.



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.

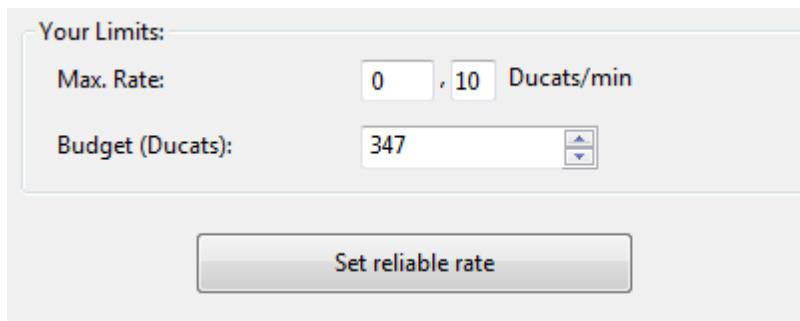
- All engines with a green symbol can be used for analysis immediately by double clicking on the engine's name.



In the dialog window you can see the provider's settings for the current price, the fixed price and the booking fee.

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.



Your Limits:

Max. Rate: 0 , 10 Ducats/min

Budget (Ducats): 347

Set reliable 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.

3.5.16.9 Hints

3.5.16.9.1 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.

Booking Fee	Max Fix Time
Free	60 min
0,02	120 min
0,02	120 min

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.

Your Limits:

Max. Rate:	<input type="text" value="0"/> , <input type="text" value="10"/> Ducats/min
Budget (Ducats):	<input type="text" value="347"/> ▼ ▲

Set reliable rate

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.

3.5.16.9.2 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 Cloud 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.

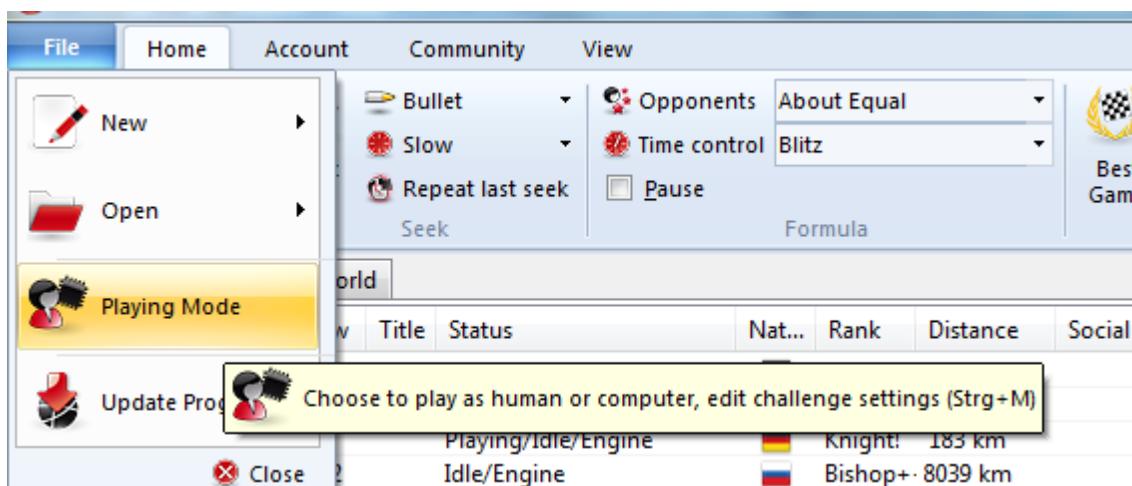
3.5.17 Examples

3.5.17.1 Cloud Engines on Playchess.com

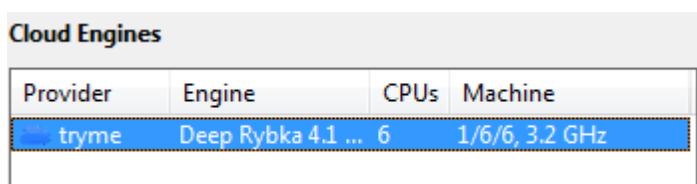
Cloud Engines can be used in many different ways. You can use these engines for your own analyses and tests. This can be done for engine matches, permanent analysis or in the Engine Room on the Playchess.com server.



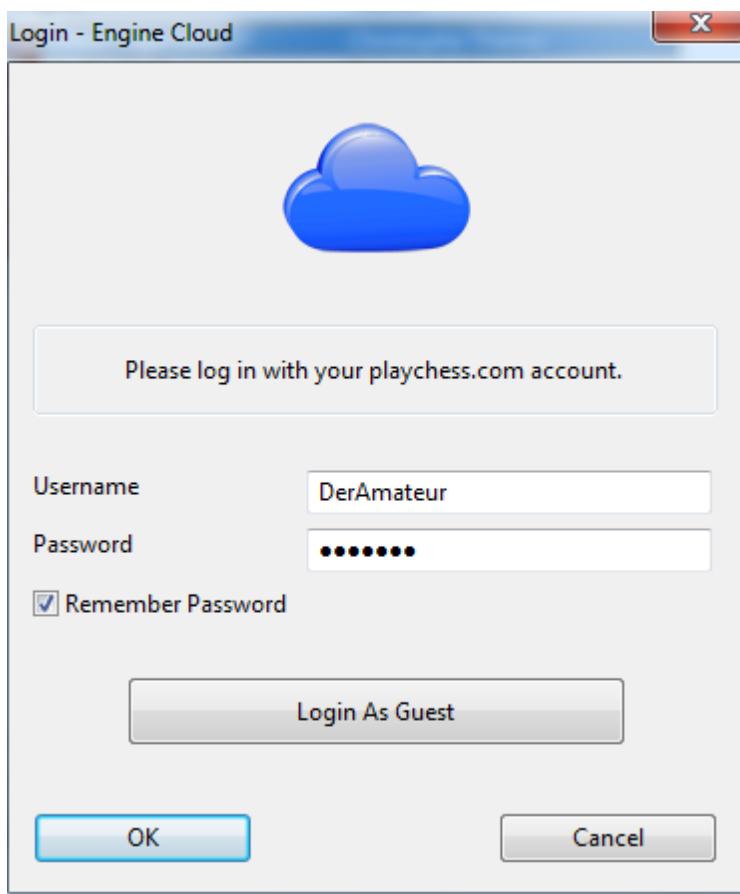
You can use Cloud Engines in the *Engine Room* in Playchess.com. Enter the Engine Room and select the option *File Playing Mode Computer*.



Click the button *Define Engine* to start the Load Engine dialog. There is a button *Cloud* in this dialog.



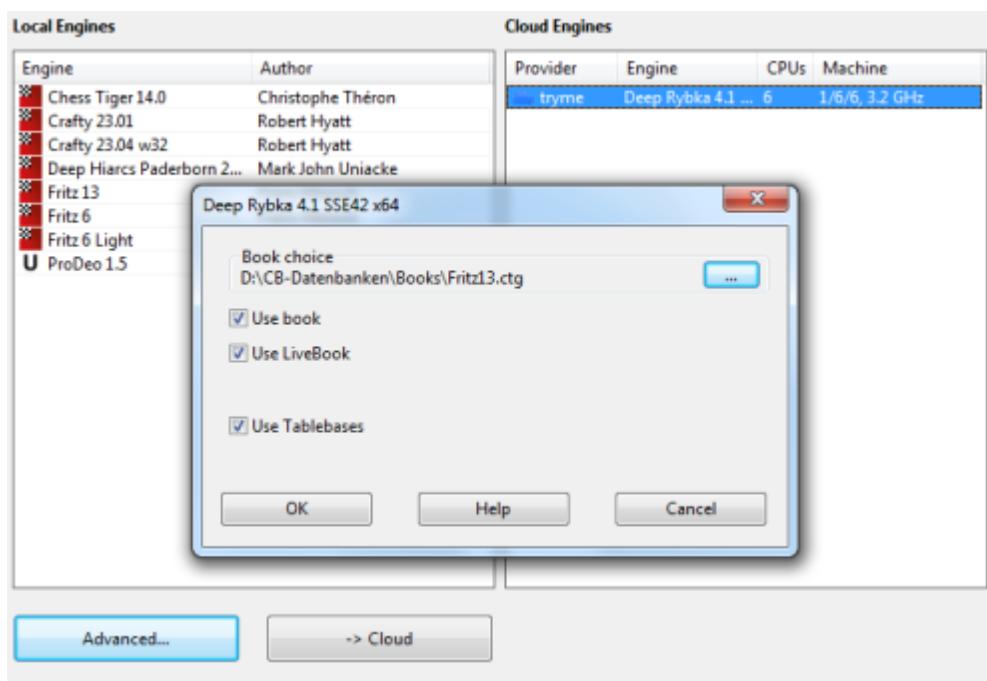
If you click this button you are asked to log into the Engine Cloud server.



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.



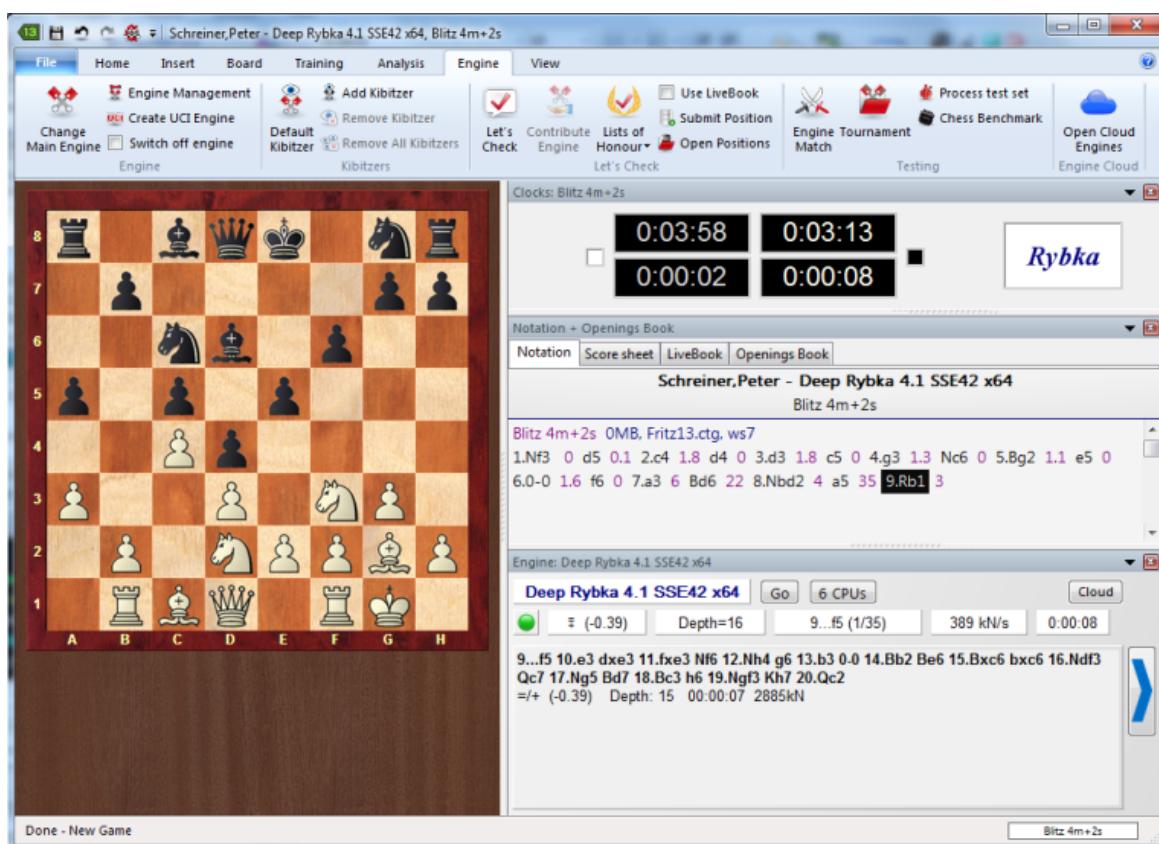
There is a confirmation in the Chat window when a Cloud Engine has been loaded.

Your local weather:
☀, Temperature: 24°C, Wind: SouthWest 3Bft.
You loaded Deep Rybka 4.1 SSE42 x64

3.5.17.2 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.



By using Engine Cloud you can use top engines with enormous processing power even on a relatively slow computer.

3.5.17.3 Let's Check

The Cloud Engines can be used on the Let's Check server in the same way as any locally stored engine.

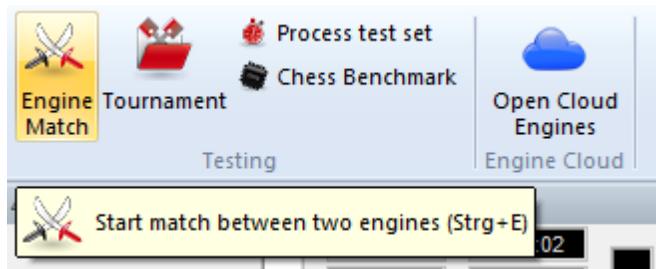


The speed index is based on the speed of the engine's provider, not on the speed of the computer with which you are using Let's Check.

3.5.17.4 Engine matches

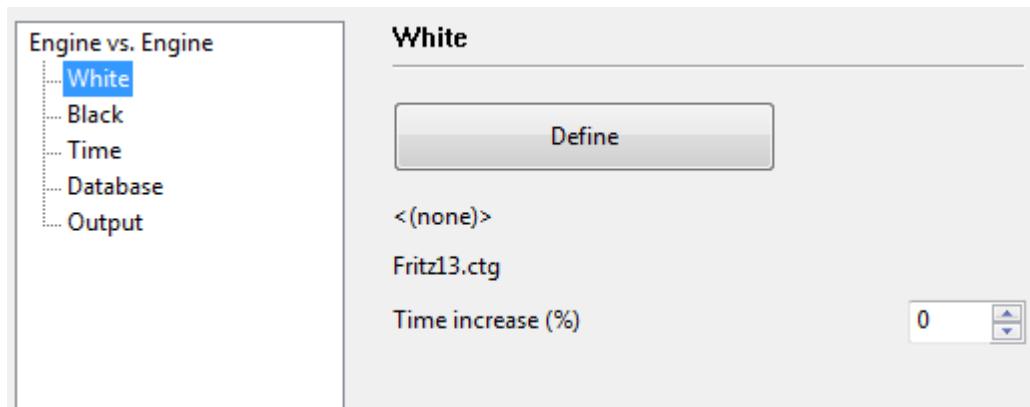
You can use *Cloud Engines* for engine matches. It is also possible to play engine matches with [Cloud Engines against locally stored engines](#).

Menu Engine Engine Match White + Black

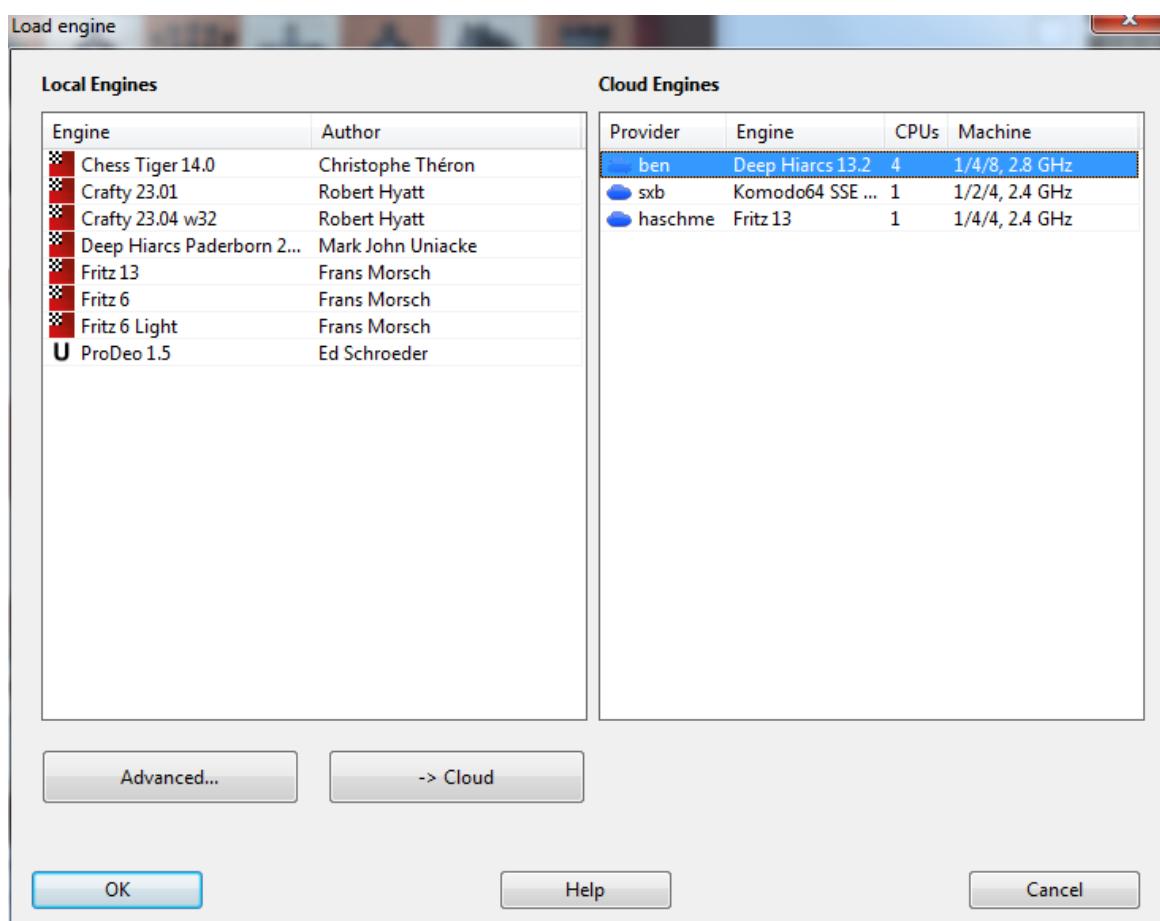


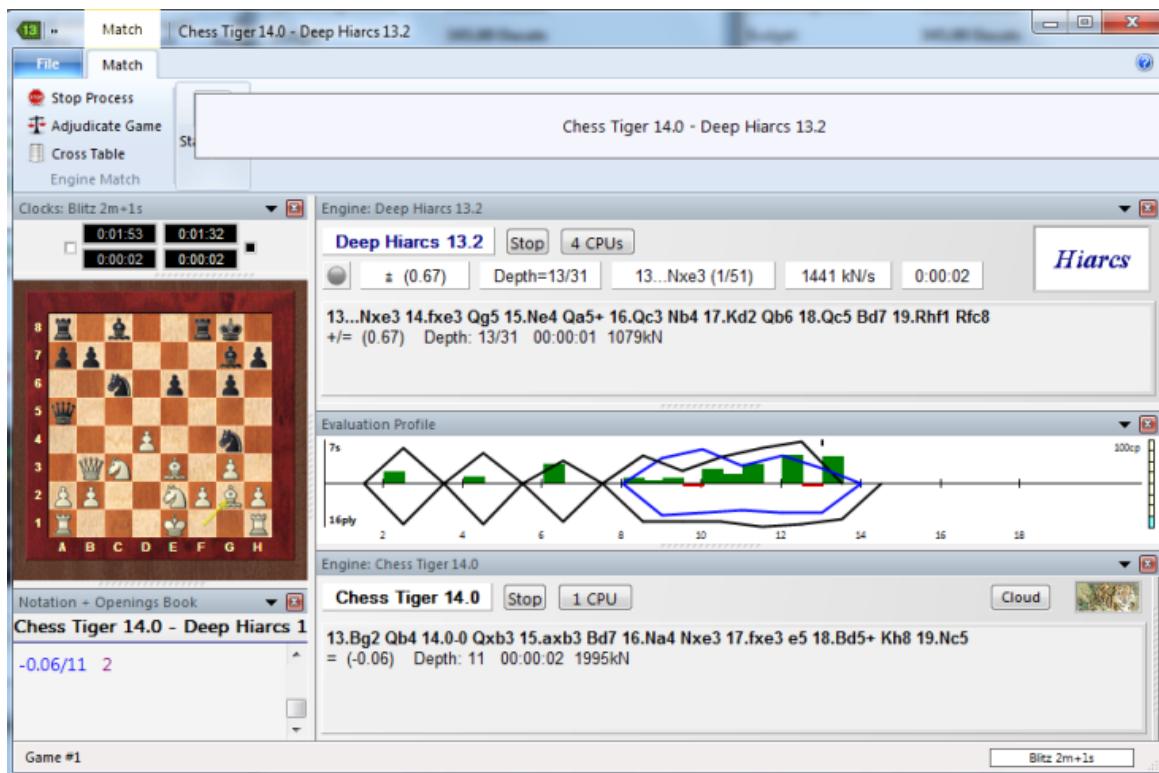
First load the the Cloud Engines that you want to use in the main window of the Engine Cloud server.

Clicking the button Define opens the dialog Load Engine.



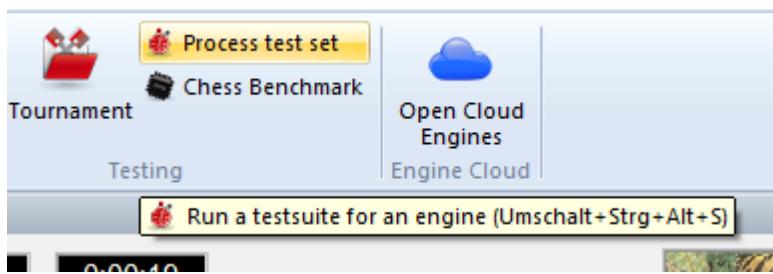
This gives you a list of the available local engines. By clicking the button Cloud you can also select a Cloud Engine.



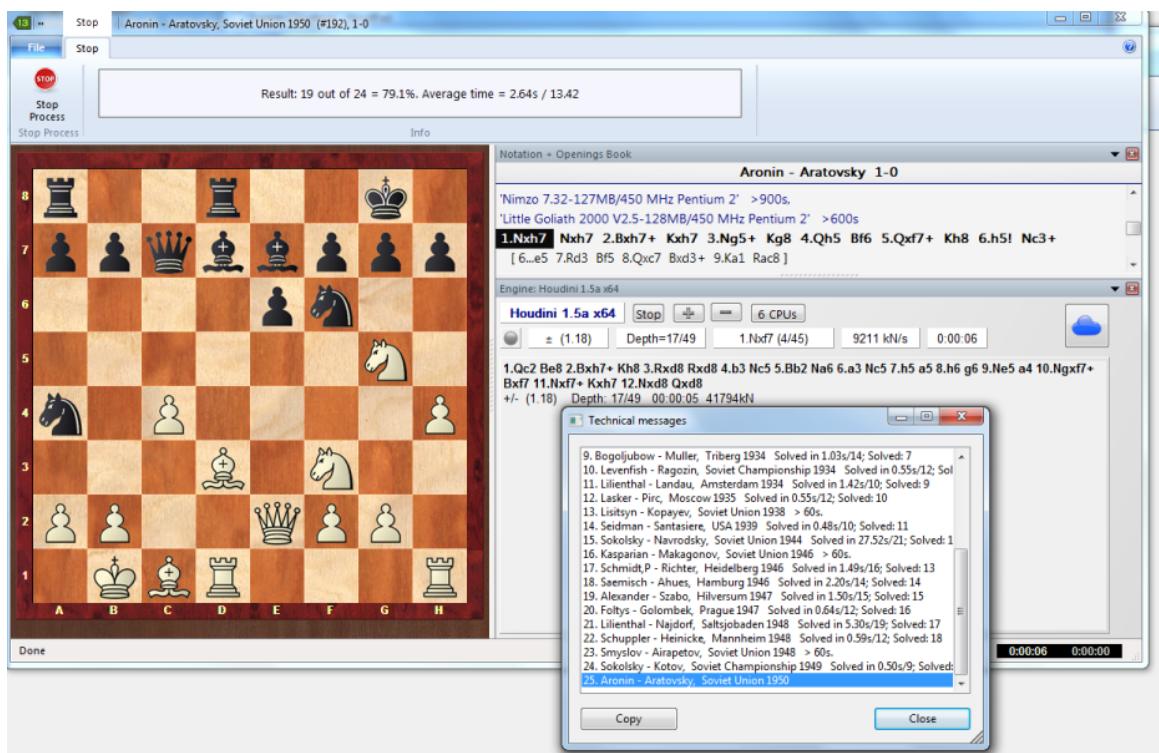
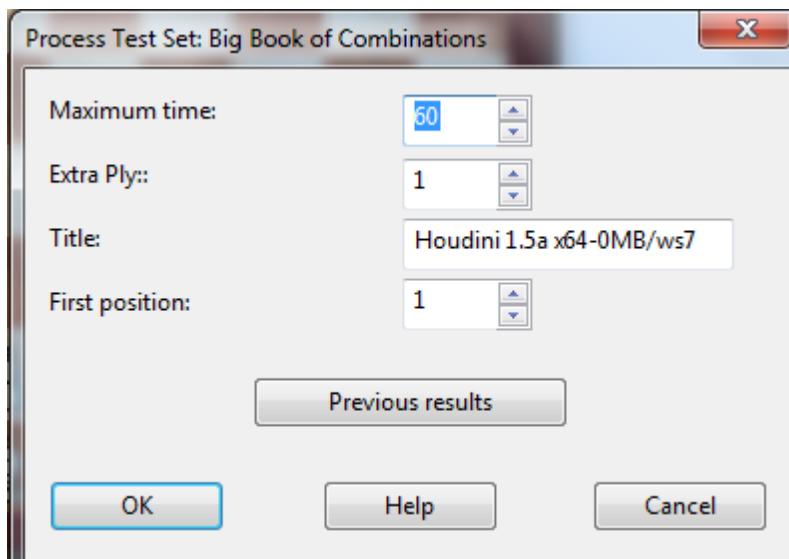


3.5.17.5 Solve Test Sets

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*.

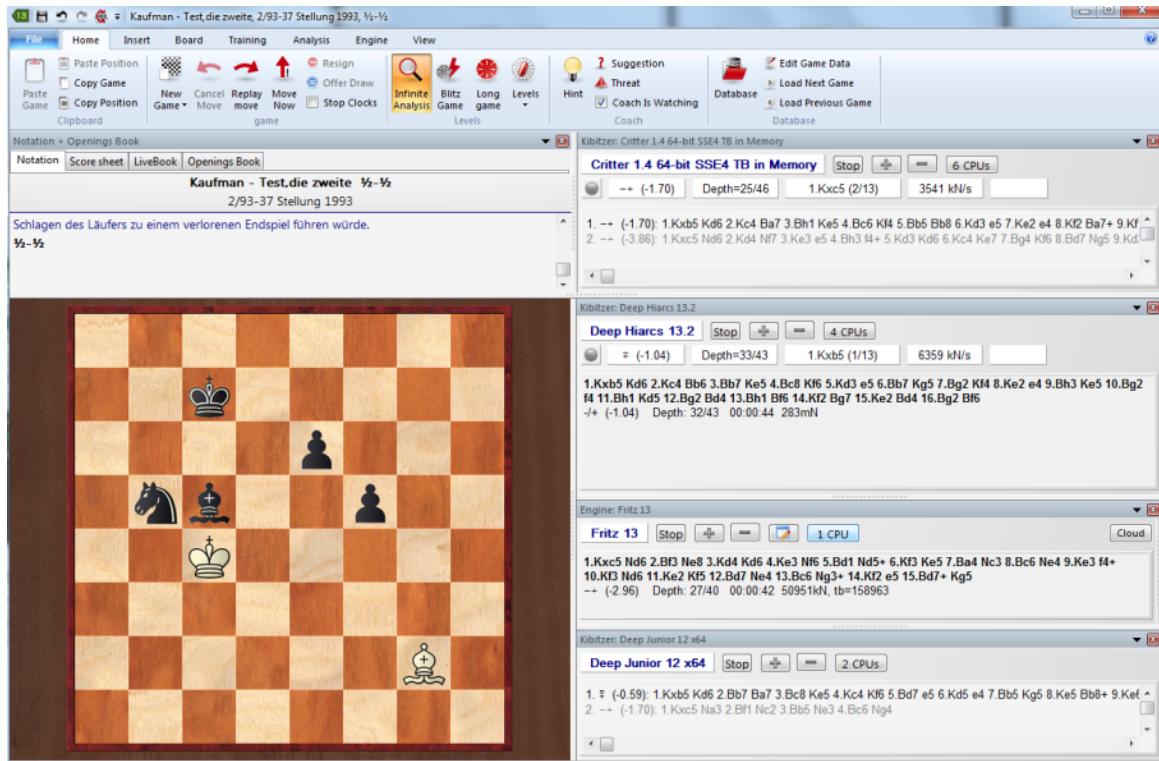


The Cloud Engine then carries out the analysis.

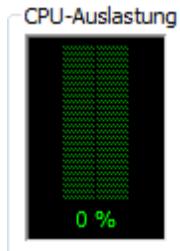


3.5.17.6 Infinite Analysis with a Cloudengine

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.



The above diagram shows the analysis of a position with three different Cloud 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.

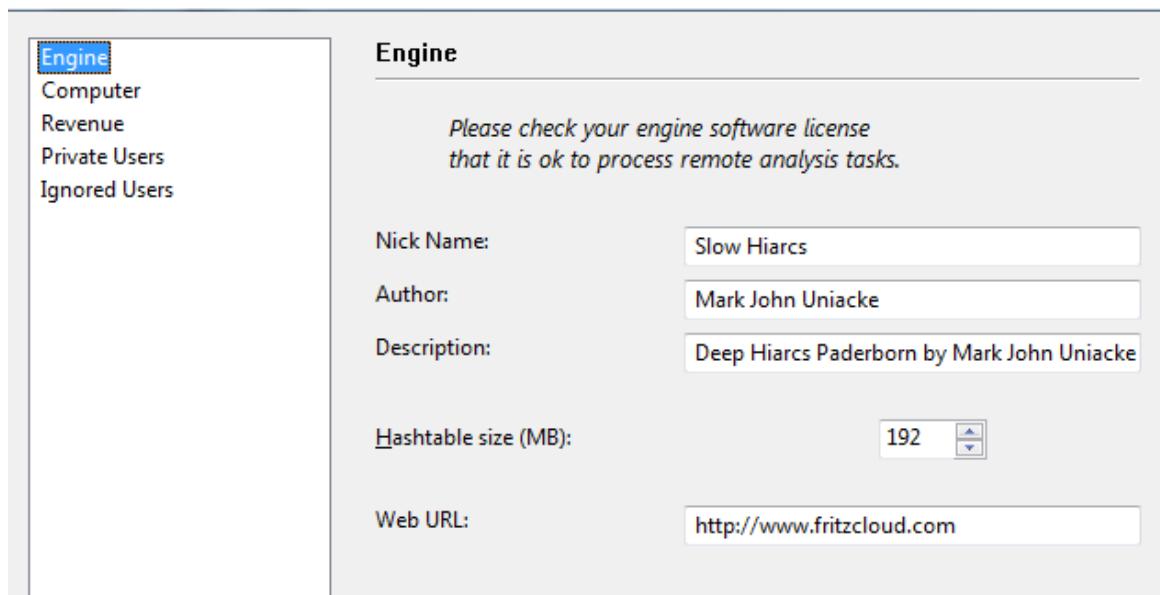
3.5.18 Settings dialog for providers

Engine
Computer
Revenue
Private Users
Ignored Users

- Engine
- Computer
- Revenue
- Private Users
- Ignored Users

3.5.19 Engine

The section Engine defines the standard settings for the display of the engine in the Engine Cloud main window.



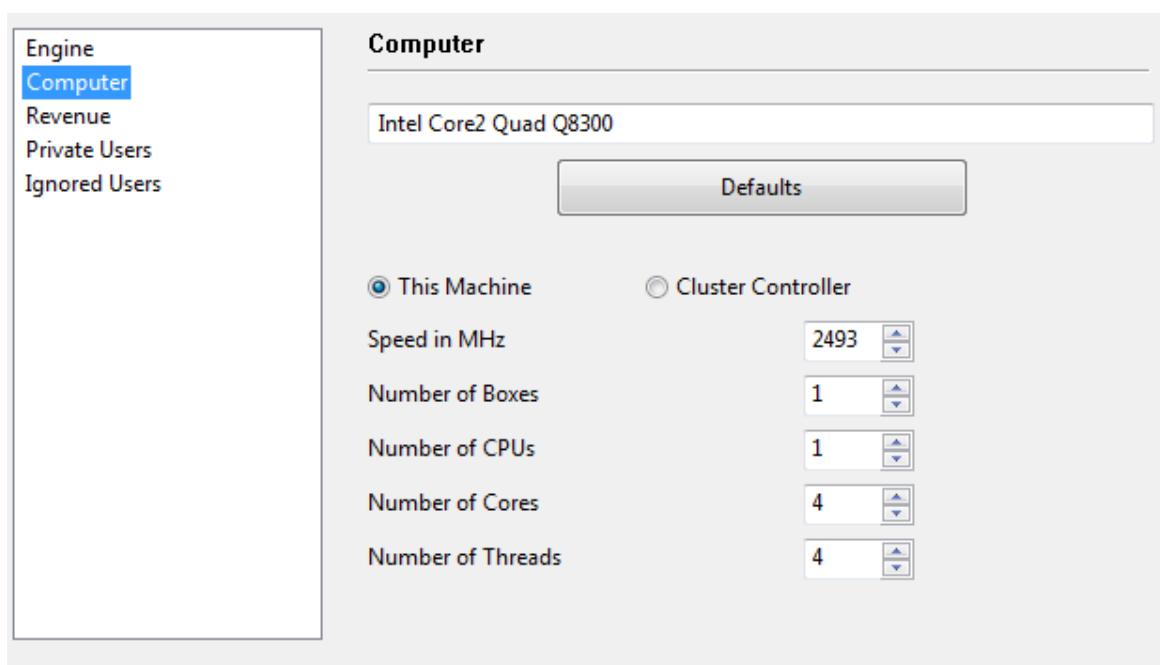
Note: Please pay attention to the user license of the software that you would like to use on the Engine Cloud server!

- **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.

- **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.

3.5.20 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**“.

Cores
4/8(1)
4/8(1)
2/4(1)
2/4(1)
6/6(1)
6/6(1)
4/4(1)
6/6(1)
Cluster
4/4(1)

The following parameters 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. |

3.5.21 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.

The screenshot shows the 'Revenue' configuration page in the Houdini software. The sidebar on the left has links for 'Engine', 'Computer', 'Revenue' (which is selected and highlighted in blue), 'Private Users', and 'Ignored Users'. The main panel is titled 'Revenue' and contains a large circular icon with the number '1' and the word 'ducats' below it. Below the icon are four input fields: 'Booking Fee' (0,0 Ducats), 'Minimum per Minute' (0,02 Ducats/min), 'Reliable Rate (no bidding)' (0,05 Ducats/min), and 'Max. Time for Fixed Rate [min]' (60).

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.

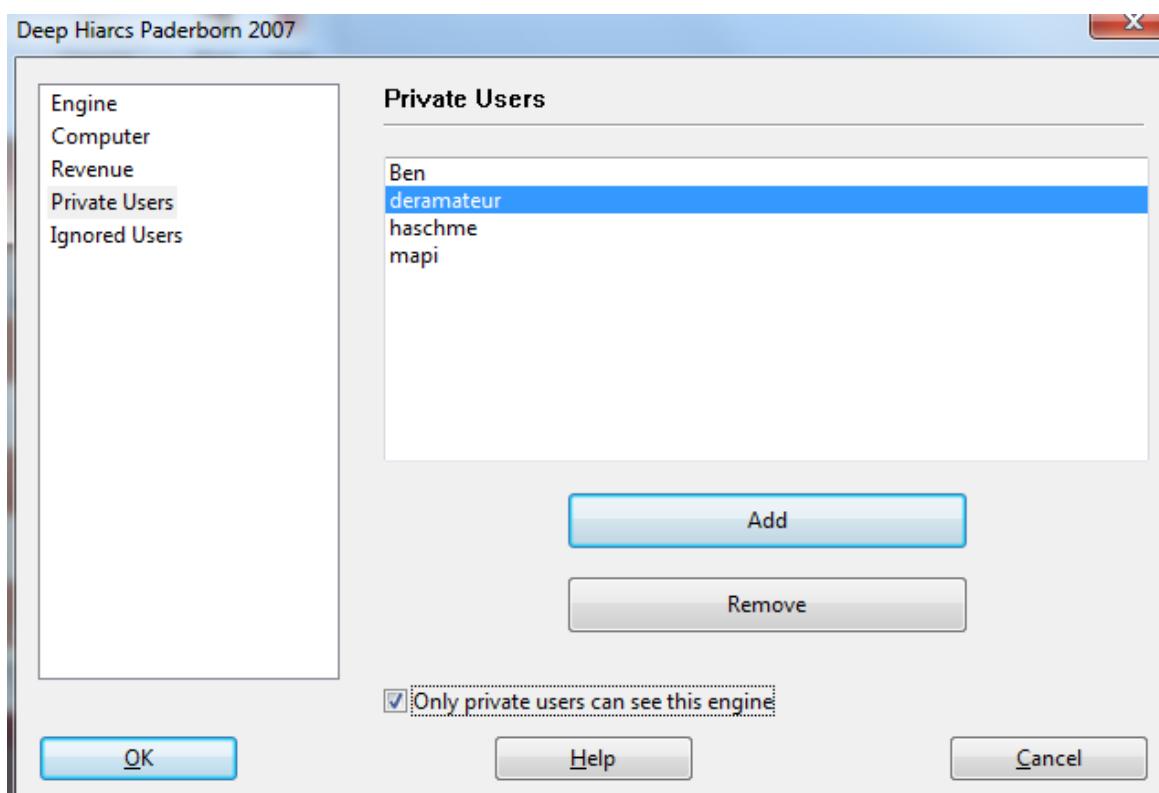
The **Fixed Rate** (Reliable Rate) is a higher rate at which bidding auctions are no longer allowed. Other users cannot take control of the Cloud Engine by bidding more. Users pay the Fixed Rate when there is a high demand for engines on the Engine Cloud server.

See also

- > Auction System ...
- > Providers of Cloud Engines

3.5.22 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.

Only private users can see this engine

If an engine is only available for private use it is listed in blue and is underlined.

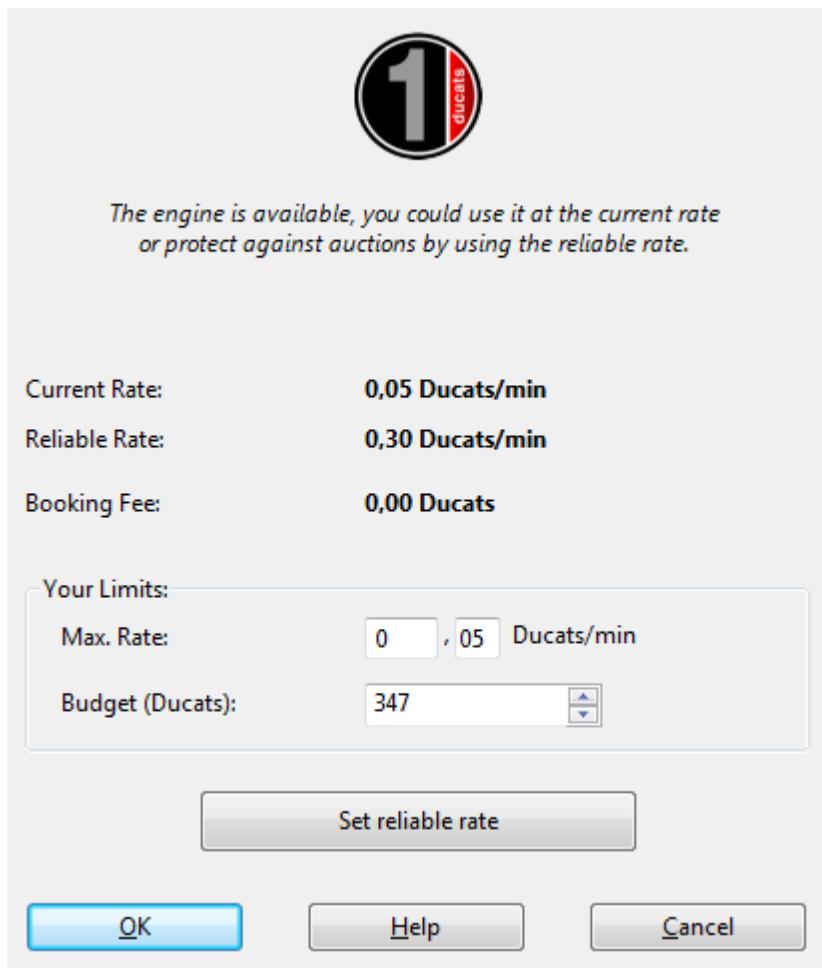
3.5.23 Ignored Users

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*.

Activate ignore list

3.5.24 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.

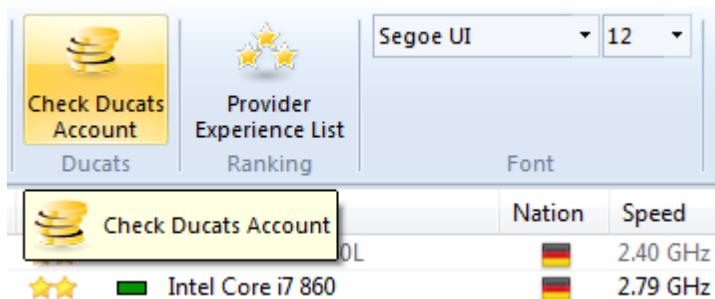
Note: In the chat window you are informed about the results of bids.

See also

-> Auction system

-> Public Cloud Engines

3.5.25 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.

3.5.26 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.

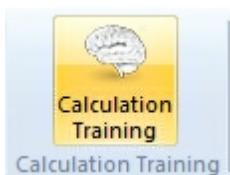
#	User	Experience
1	darkraider	30.50
2	TryMe	27.11
3	Ben	13.15
4	mw testing	13.08
5	Sundiver	12.62
6	Hieronymus	12.36
7	SxB	8.75
8	Fulcrum2000	8.57
9	WildRabbit	7.64
10	kjoeller	5.80
11	gfroberg	5.66
12	Mapi	5.26
13	Sober_Knight	5.11
14	DerAmateur	5.09
15	CGB_2nd	4.39
16	Myrddin	4.18
17	Creative Thought	3.78
18	keimer	3.35
19	Steffen Giehring	2.64
20	Nag Kings	2.60
-- -- --		

3.6 Training

3.6.1 Calculation Training

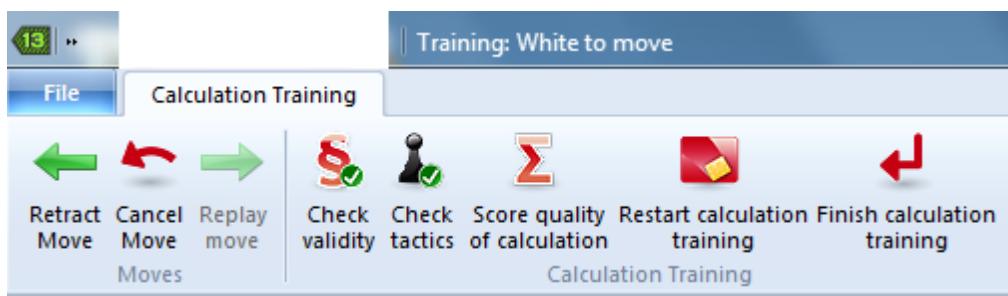
You can vastly improve your playing strength by training to calculate variations. This function is fun to use and helps you to learn visualization of moves on the board without moving the pieces. This is what over the board chess is all about!

Calculation training starts from an arbitrary position on the board. Call menu *Training - Calculation Training*. (*Ctrl-Alt-B*)



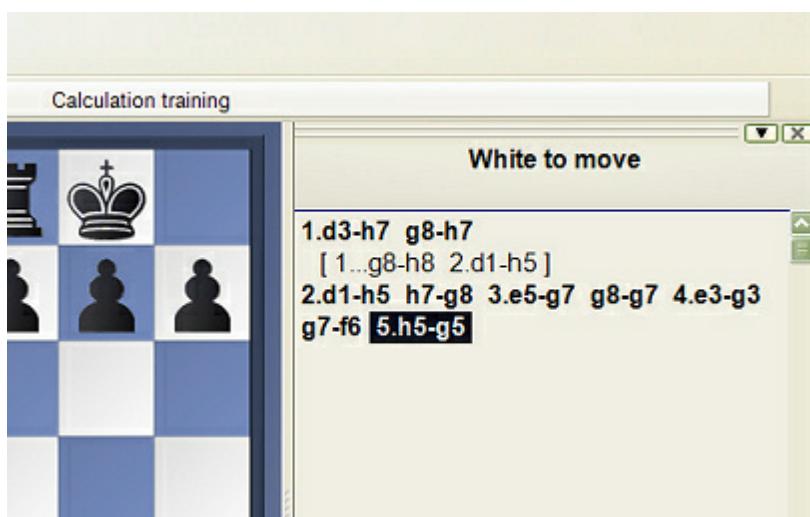
You enter moves by clicking or dragging with mouse like on the normal board. Every move is added to the notation. You can click in the notation and move forward or backwards with the arrow keys. At any stage you can enter new variations. However the pieces on the board always remain fixed in the starting 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.



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.

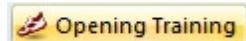


The program first asks whether the user really wants to delete the results. The program also checks whether the moves that have been entered are legal.

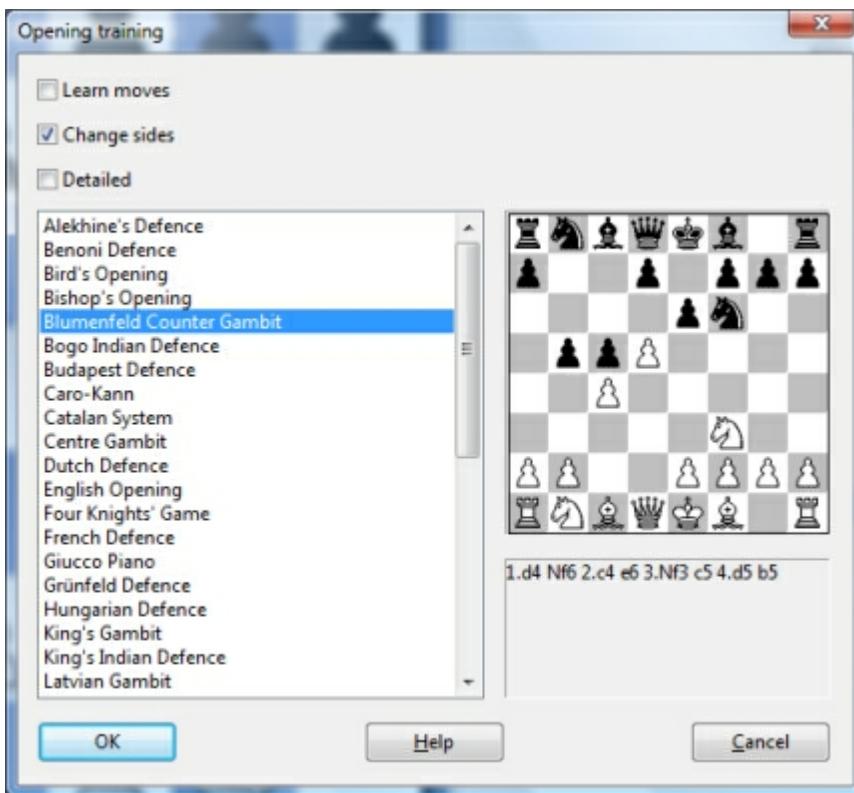
Important: You can use calculation training on the chess server during a broadcast, using Menü Tools - Calculation Training. This is to be especially recommended during live broadcasts when players are spending a lot of time pondering over a position. It will help your chess much more than simply looking at the main line of your engine.

3.6.2 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.



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.
- **Detailed:** You get a more detailed 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.

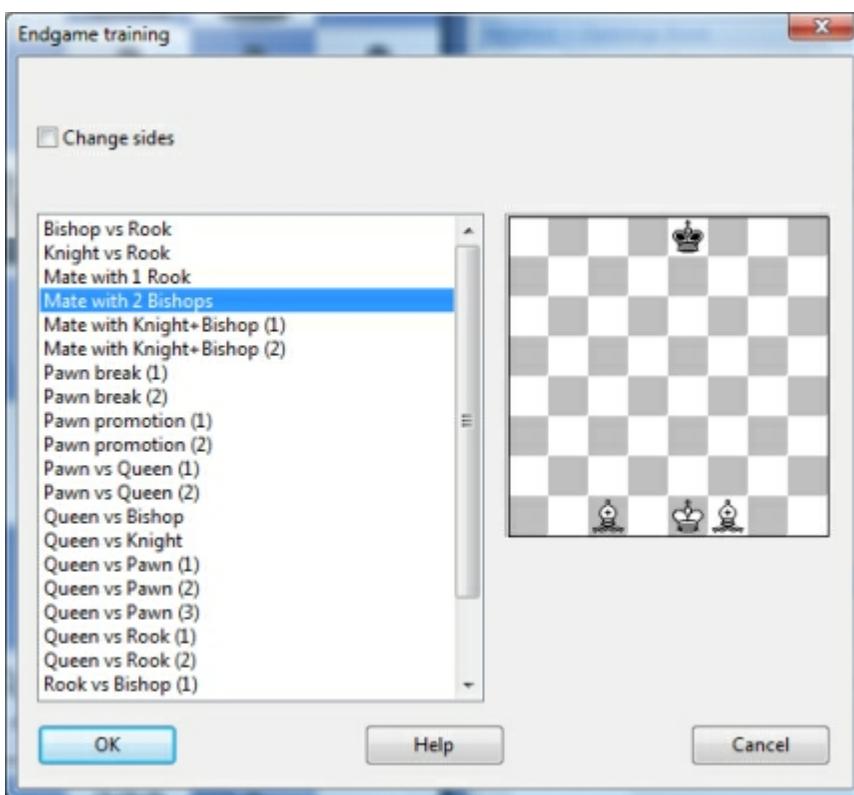
Note: you can extend the opening training database.

3.6.3 Endgame Training

Training Endgame training



This is similar to the openings training, except you get instructive endgame positions.



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 position 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.

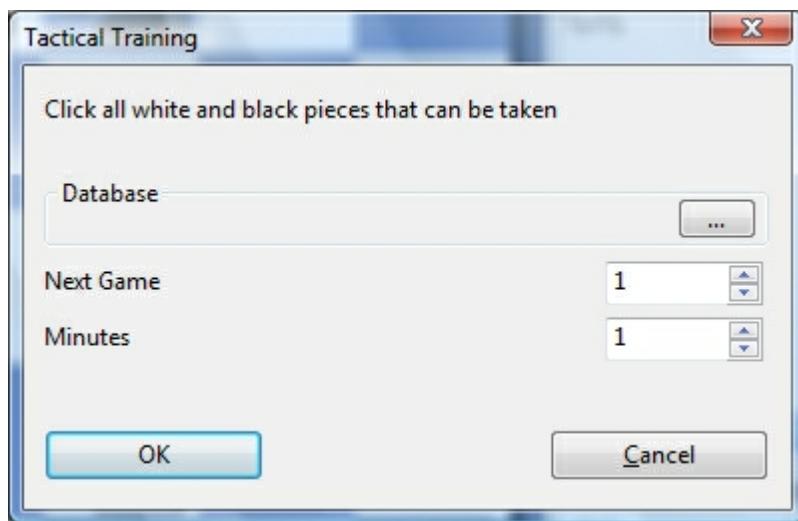
3.6.4 Tactical Training

Training Attack/Check/Defence training

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** 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.

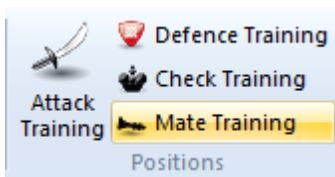
Clicking on squares will mark them green, clicking again removes the mark. If you solve the problem in the allocated time the program will automatically present a new position. If not it will show you the correct solution. You also get statistics of your results, and can proceed to the next training position. Click on the red "Stop" button on the top left to end the training session.



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.

3.6.5 Mate Training

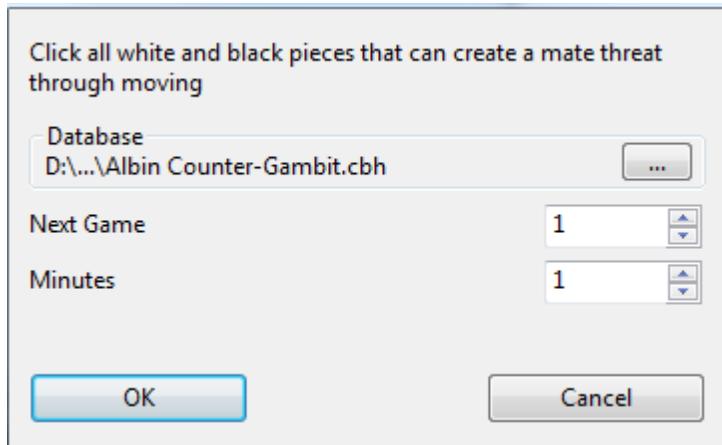
Training - Mate Training



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 for 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 program 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.

3.6.6 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.

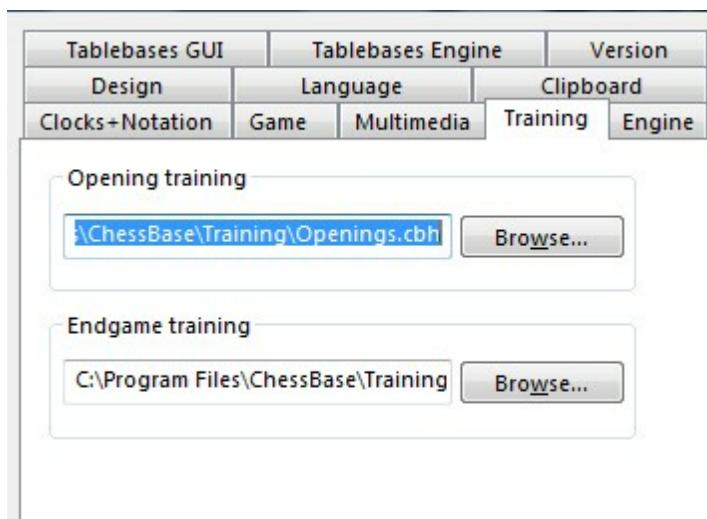
- ▶ To start a theme blitz get the starting position on the board, either by entering moves or entering a position.
- ▶ Now click *Training Theme blitz*. The position will be displayed in a dialog.



- ▶ 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.

3.6.7 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.

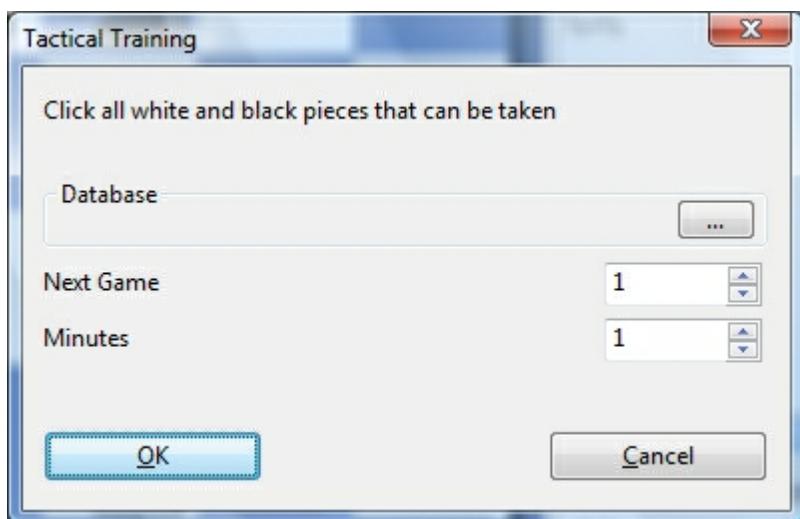
Practical tips

- ▶ 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.
- ▶ 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.

3.6.8 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.



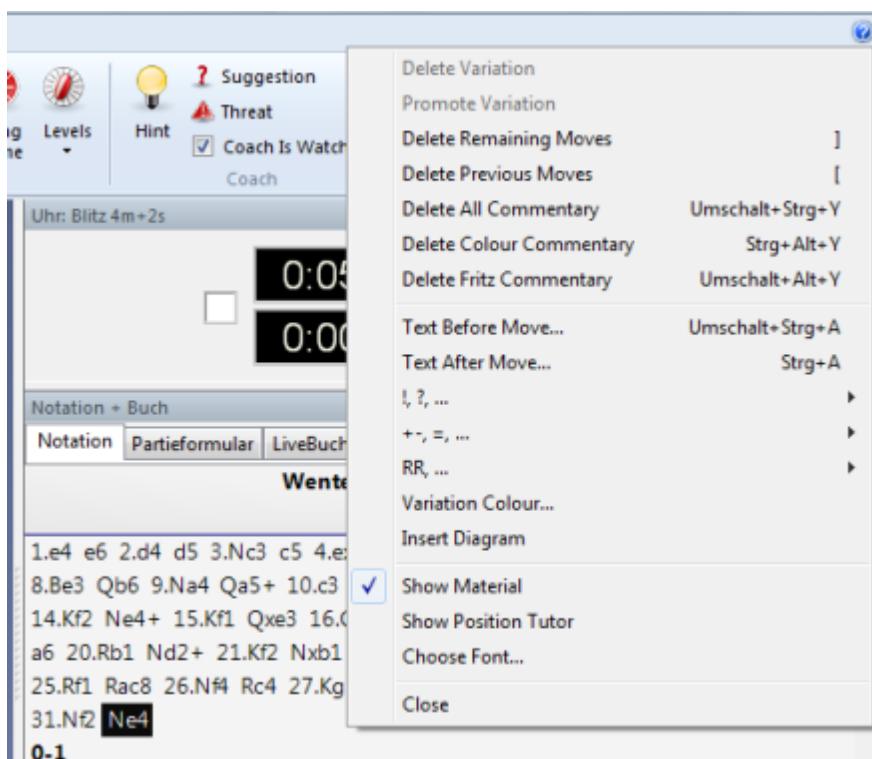
The results are stored by the program and displayed after every cycle.

Delete the file *Highscore.ini* to get started. Use the Windows Search function to locate the file on your computer.

3.7 Commentary

3.7.1 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 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.

Takes back material

Black has no isolated pawn any more on: a5

White should play on the king side

Black should play on the queen side



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.



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.

3.7.2 Text commentary

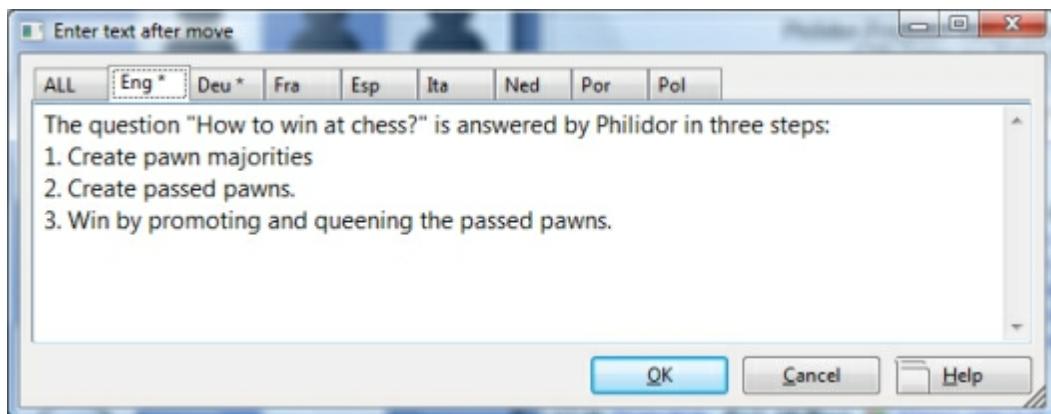
Insert Text before/after move



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.



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.

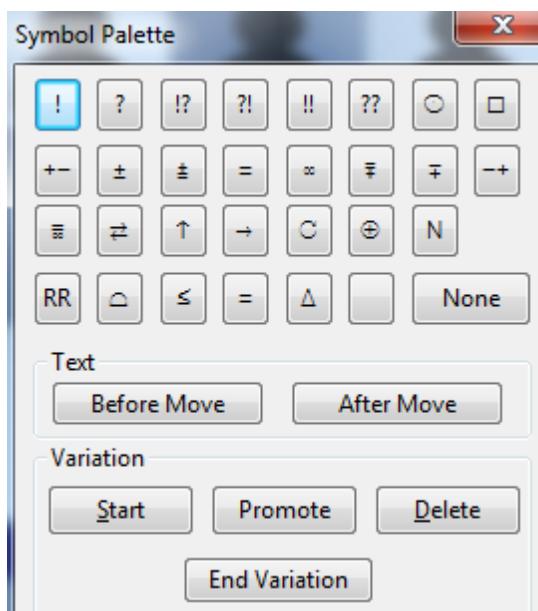
Some points to note

- ▶ 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.

3.7.3 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*



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
±	White is slightly better
±	White is clearly better
+-	White is winning
³	Black is slightly better
µ	Black is clearly better
-+	Black is winning
f	With attack
,	With initiative
"	With counterplay

How to enter commentary symbols from the keyboard.

See also LiveBook ..

3.7.4 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.

C39	1851	½-½	40
■■■	C52	1851	1-0 23 VCAI
■■■■■	C52	1851	1-0 25

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.

3.7.5 Graphic commentary

The program uses coloured arrows and squares to illustrate tactical points and make strategic themes and plans more clear.



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.

3.7.6 Chess Media System

The *Chess Media System* allows chess teacher and lecturers 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.

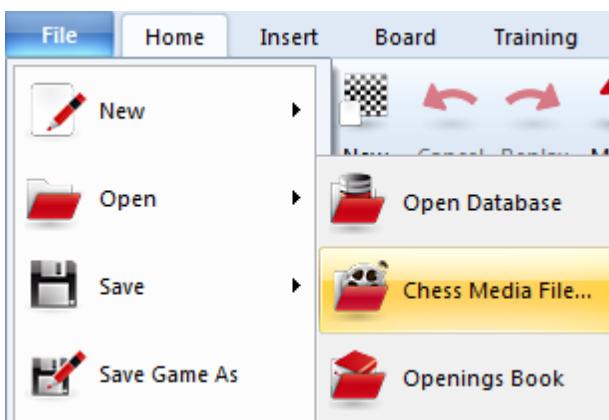
The lectures can be transmitted live over the Internet and broadcast on the Playchess server, or they can be recorded and distributed on CDs and DVDs.



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.

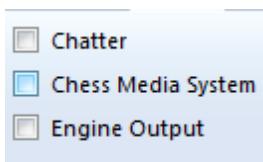
There are different ways of viewing a lecture:

- ▶ 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.

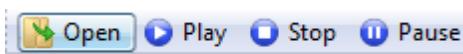


- ▶ If the lecture is on Playchess then you load the game. The program will detect the Chess Media broadcast and open the media window. Usually lectures and broadcasts have names like "TV ChessBase". Note that no multimedia broadcasts are available in the main playing hall and in other tournament rooms. 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".



There are buttons at the bottom of the screen for opening new files, playing, stopping, etc.



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

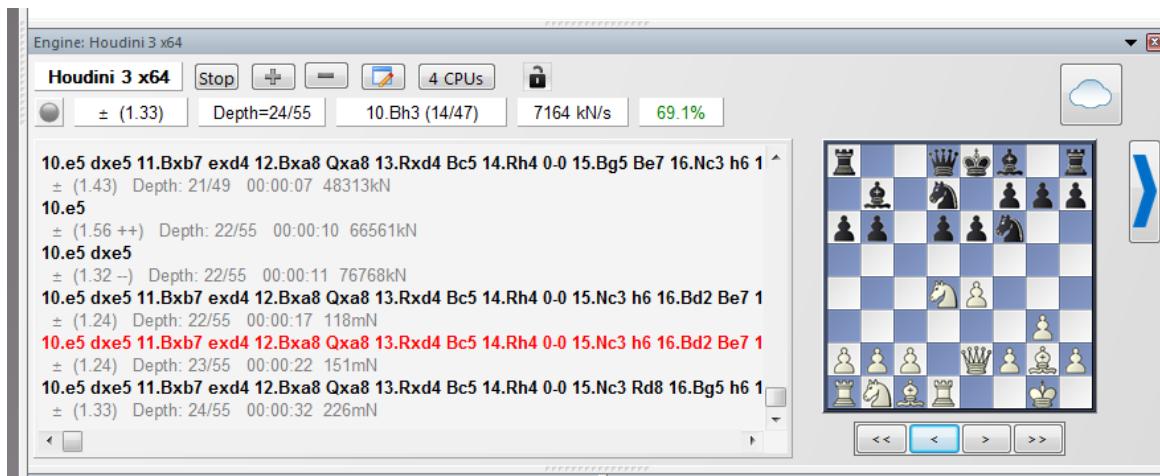
In order for you to watch and hear the Chess Media lectures you need to have a working sound system on your computer; and to have the last Windows Media Player Version installed. This is available free of charge on the Microsoft web site. It is probably already installed on your computer.

3.8 Computer chess

3.8.1 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.



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 (October 2012)

► Fritz 13

A very strong new version of the program that held classical chess world champion Vladimir Kramnik to a 4:4 draw in Bahrain in October 2002, and drew against Garry Kasparov in New York in 2003. Fritz has a large amount of chess knowledge, which enables it to find good plans and ideas even in positions where there are no tactical opportunities. The authors are Frans Morsch (Holland) and Mathias Feist (Germany).

► Rybka

Rybka, a strong chess program, leads all ranking lists clearly, with ratings well above Elo 3000. Rybka 3 is here, with a dramatic improvement of at least 80 Elo points. Rybka, which translates to "little fish", is the shooting star of computer chess and the reigning world champion,

► Deep Fritz

A special version that supports multiprocessor systems.

► **Shredder**

Winner of a large number of world championship titles. Author: Stefan Meyer-Kahlen (Germany).

► **Hiarcs**

A positionally very strong engine written by Mark Uniacke (England)

See also Cloud Engines

3.8.2 Houdini 3

Houdini is a state-of-the-art chess engine for Windows combining outstanding positional evaluation with the most sophisticated search algorithm. The name Houdini was chosen because of the engine's positional style, its tenacity in difficult positions and its ability to defend stubbornly and escape with a draw – sometimes by the narrowest of margins. On the other hand Houdini will often use razor-sharp tactics to deny its opponents escape routes when it has the better position.

Houdini is written for Windows and will run on any not too ancient Windows version. On Linux you can run Houdini using Wine without any significant performance loss.

Since December 2010 Houdini has been leading all the major Computer Chess rating lists and is widely considered to be the strongest chess engine on the planet. From numerous interviews it appears that many top Grand Masters including the current chess World Champion Viswanathan Anand use and appreciate Houdini.

In the new Tactical Mode Houdini 3 will prefer tactical instead of positional solutions. In tactical test suites the Tactical Mode will find more solutions and provide significantly faster solution times, often by a factor of 3 to 10.

The Accelerated Principal Variation Search or "Smart Fail-High" is especially useful in very deep analysis when a different move becomes best at very high search depth. Houdini 3 will apply an automatic depth reduction that often speeds up finding the Principal Variation by a factor of 5 to 10.

Besides Nalimov and Gaviota End Game Table Bases, Houdini 3 now also supports Scorpio bitbases. These bitbases are loaded in memory when the program starts (requiring about 300 MB of memory) and are then readily available to the engine.

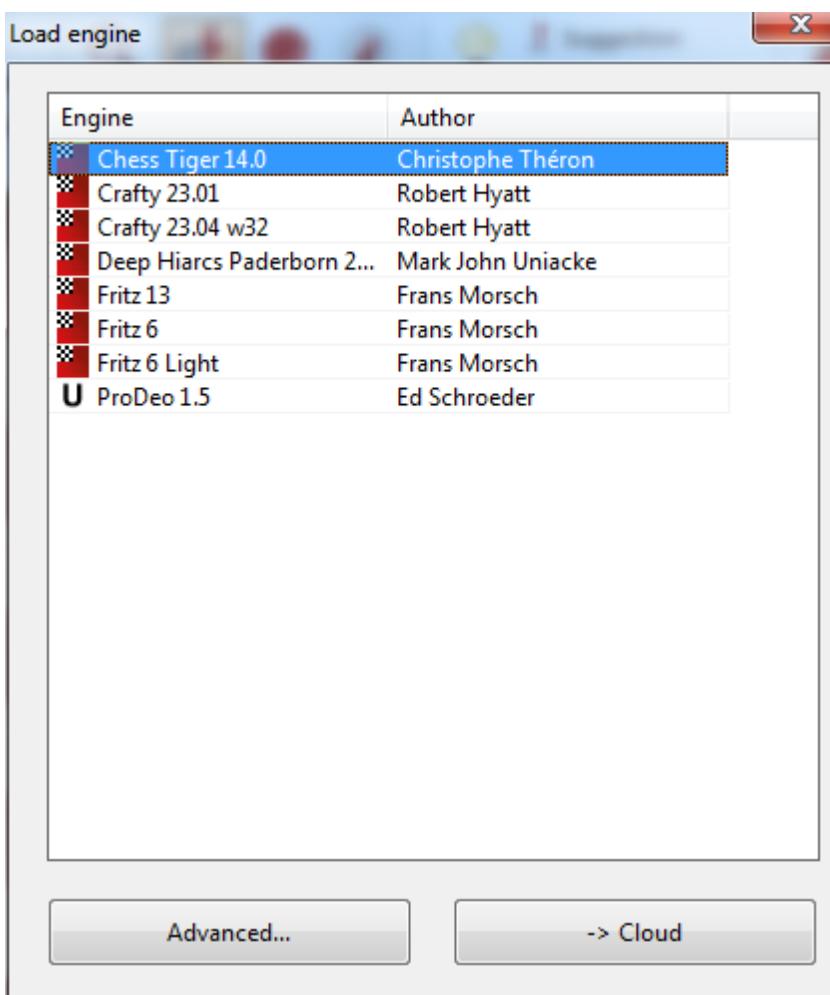
Fun fact: Over 10 million chess games were played for the development and tuning of Houdini 3!

3.8.3 Load Engine

—
Menu: Engine Change main engine



This brings up a dialog box in which you can load engines and set different engine parameters.

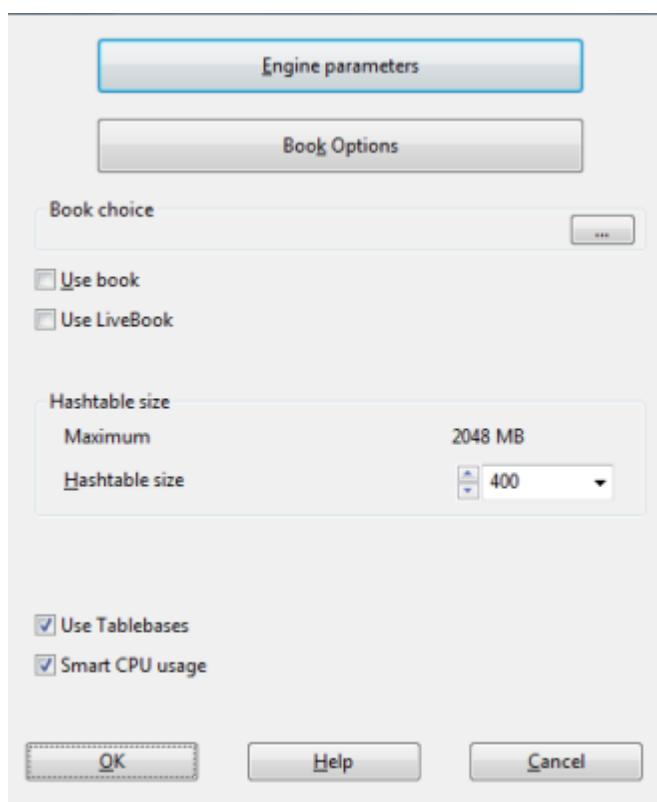


Advanced offers you more possibilities. -> Cloud Engines ...

- ▶ **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).

3.8.4 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

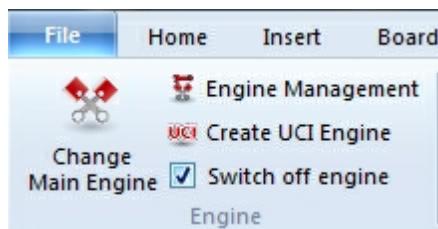
On a computer with hyperthreading (i7 4 cores + 4 hyperthreading) a deep engine only starts with 4 threads/processes. On a computer without hyperthreading (i5, AMD) it starts with n-1 threads/processes. If you turn this option off it starts as in the older version.

Exception: The user has explicitly defined the number of threads/processes, for instance by defining a UCI engine.

3.8.5 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 programs at the same time.

3.8.6 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.

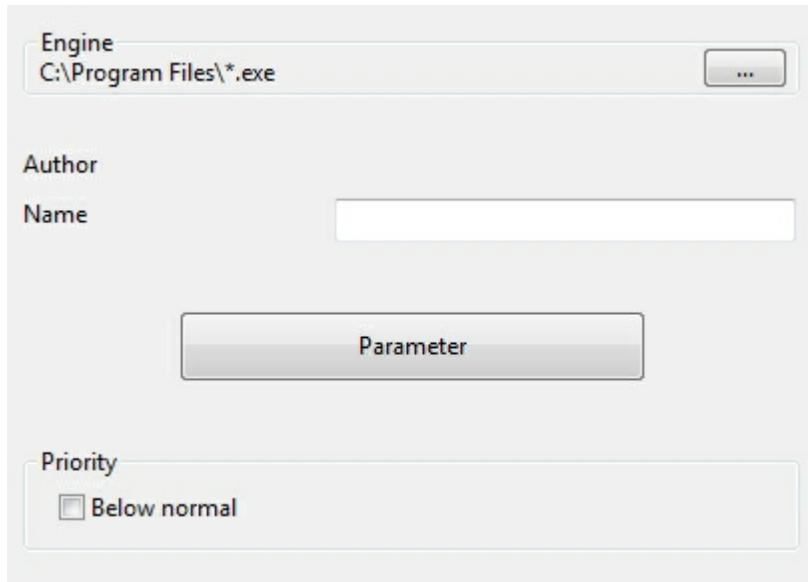
UCI stands for *Universal Chess Interface*. It is a communications standard defined by Stefan Meyer-Kahlen. The UCI interface is closely related to the "Winboard" protocol. This means that existing Winboard engines can be very easily adapted by the authors to run under our interface. For these programmers 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 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

3.8.7 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.

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 amount of resources. Some UCI engines have problems with the default setting because they use too many resources 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

3.8.8 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.

Hash tables increase the playing strength of the program considerably. This is especially true of tactically strong engines like Fritz, Houdini or Shredder. 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.

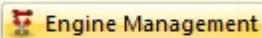
Some engines work best with hash tables sizes that are powers of two. This means that 64 MB of hash tables is much more valuable than 63 MB. Hash table sizes are set in the "Load engine" menu.

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.

3.8.9 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.

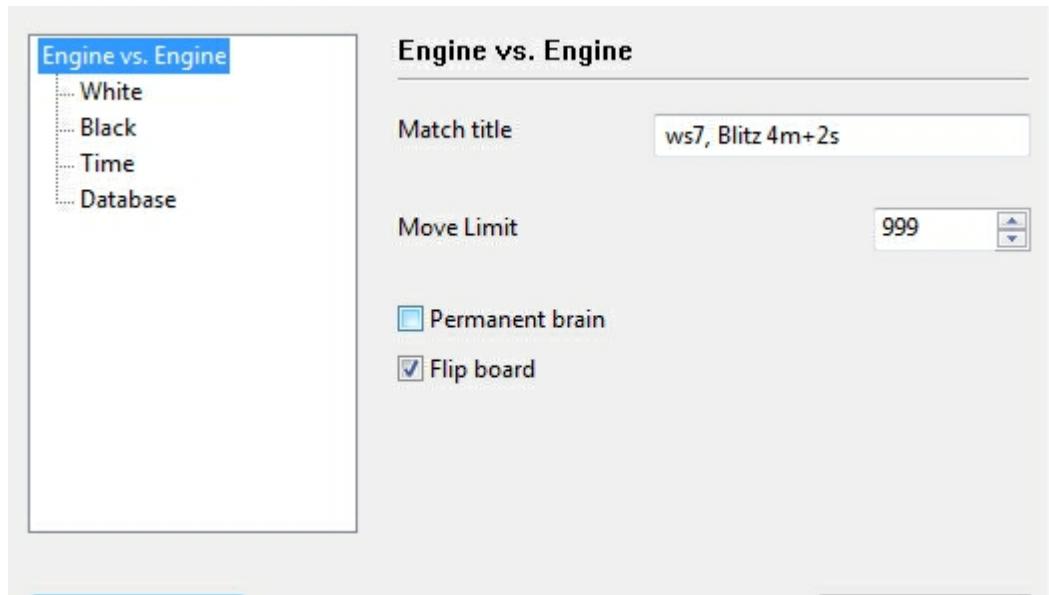
If you have collected a large number of engines, the list from which to choose becomes long and unwieldy. The function Engine management helps you "archive" engines and activate them only when they are needed.

- ▶ **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.

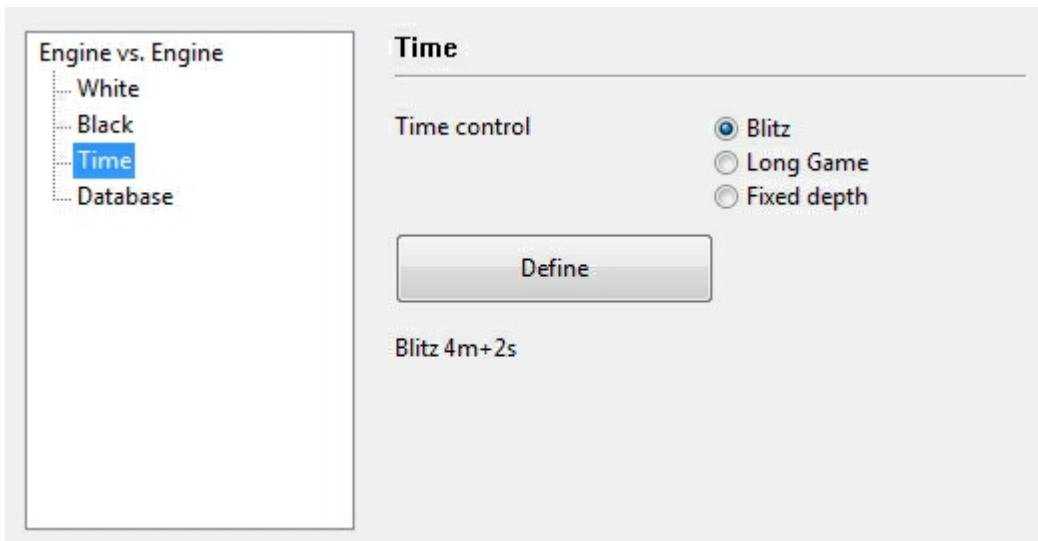
3.8.10 Engine matches

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.



- ▶ **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.

- ▶ 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.

3.8.11 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.

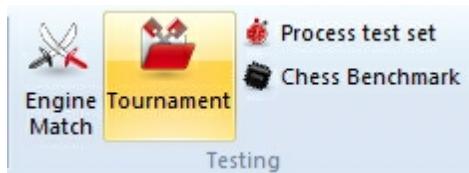
There are a number of reasons for this kind of experimental match, which eliminates the use of traditional openings books:

- ▶ 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.

- 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.

3.8.12 Engine tournaments (with humans)

Engine Tournament

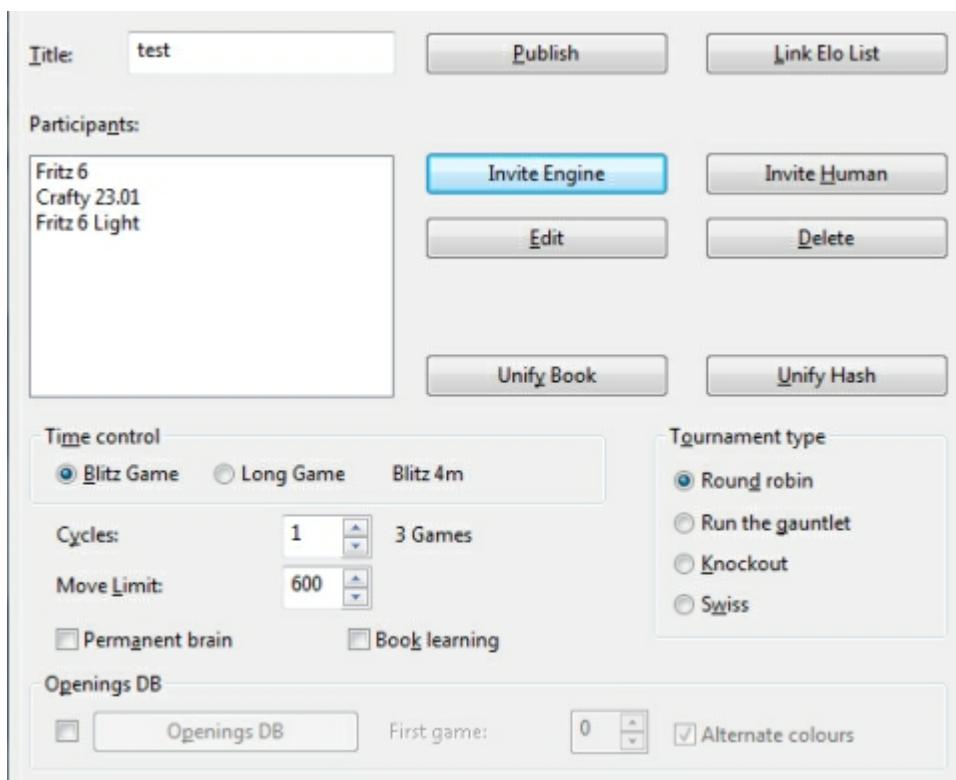


This program can stage entire tournaments with many participants, fully automatic. This is the best way to rank chess engines. It is in some ways better than engine matches, since some programs may have problems with one rival while doing much better against others. In engine tournaments, each program meets a variety of opponents, and the overall playing strength is determined.

Setting up a match can be done quickly and easily. You invite engines to a tournament, set a time control, specify the number of rounds, start the tournament and leave the computer to do everything else by itself.

When you click "*Engine Tournament*" you are asked for a file name (ending with: **.cbtourn**). After that, a dialog box appears in which you can set up the tournament (or continue an existing one).

- **Title:** Enter a name for the tournament. This will appear in the tournament column of the games list.



- ▶ **Publish:** This allows you to publish the games automatically and live on the Internet.
- ▶ **Link Elo list:** If you link the tournament to an existing Elo rating list, then the Elo ratings of the programs are saved with the games and proper cross tables generated.
- ▶ **Invite engine:** 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.
- ▶ **Invite human:** Allows a human being to participate in the tournament. You can play your games whenever you like. Simply open the tournament and click "Next human game".
- ▶ **Edit:** This allows you to edit the settings you entered when inviting an engine.
- ▶ **Delete:** Removes an invited participant.
- ▶ **Unify book/hash:** All engines use the same openings book or the same size of hash tables.
- ▶ **Blitz/tournament game:** The tournament is played at blitz/tournament time controls.
- ▶ **Cycles:** Gives the number of rounds in a Swiss tournament, or the number of times each player must play against all other players in a round robin.

- ▶ **Permanent brain:** The engines are allowed to think on the opponent's time. This means each participant will use 50% of the processing power during the entire game.
- ▶ **Book learning:** The openings books that are being used are modified and improved in light of the games that are played. This means that the engines will start avoiding lines that went badly for them, and try to force ones in which they scored well.
- ▶ **Round robin:** In this tournament type, each player must play against all other participants ("cycles" determines how many times).
- ▶ **Run the gauntlet:** This allows engines to be included into a running tournament. They will play against all other engines (which have already played against each other), and will do so as often as specified in "cycles".
- ▶ **Knockout:** Players are eliminated in matches against each other; the winner goes on to the next round.
- ▶ **Swiss:** The engines play n rounds (determined by "cycles") against each other, where n is less than the number of opponents in the tournament. In the Swiss system the opponents are chosen according to their running scores, that is, those with approximately equal scores are paired against each other.
- ▶ **Run/Continue:** If you need to use your computer during a tournament you can interrupt it and resume later. Click "File" – "Open" – "Tournament", select the tournament in the file selector and click the "Run/Continue" button in the tournament dialog box.
- ▶ **Next human game:** If you are participating in the tournament, click this when you are ready to play your games. You can also do so in the menu "Game" – "Tournament" – "Next human game".

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.

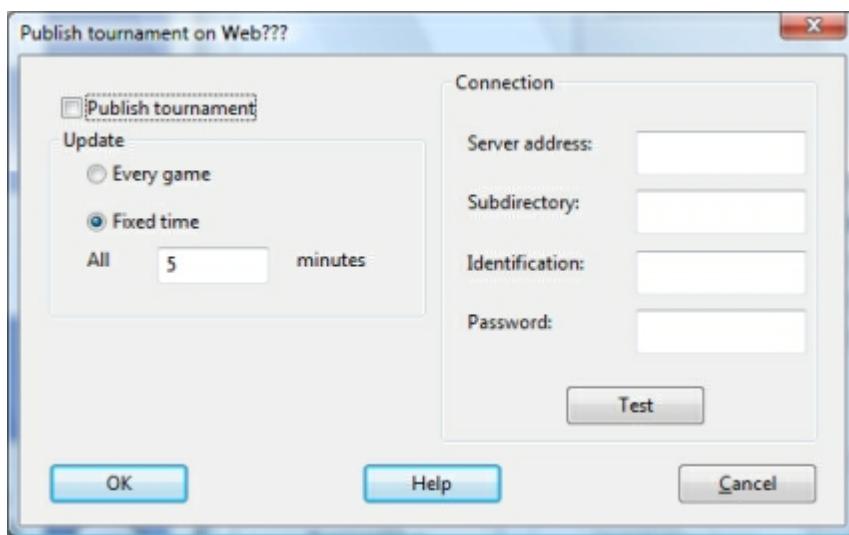
The tournament database is always shown in the history list of the database window.

3.8.13 Publish tournament on the Internet

Publish - Tournament dialog

With this function you can stage entire tournaments with many participants, human and computer, fully automatic. These tournaments can be published live on the Internet. The program will update the web pages automatically at regular intervals. It will even include a Java script diagram of the current game, so that visitors can play through it on their browsers.

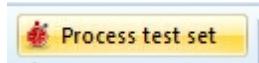
When you start or resume a tournament, click the "Publish" button to get the following dialog box:



- ▶ **Publish tournament:** This must be checked if the tournament is to be published.
- ▶ **Update:** Allows you to determine whether the web site should be updated after every game or at regular intervals (e.g., every five minutes).
- ▶ **Server address:** Specify the FTP address of your web server (e.g., myserver.com).
- ▶ **Subdirectory:** It is advisable to create a subdirectory for the tournament on your server. If you leave this empty, the tournament will be published on the root directory.
- ▶ **Identification:** This is your user name on the server.
- ▶ **Password:** The password will give the program access to your domain.
- ▶ **Test:** Makes a test connection to your server.

3.8.14 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.

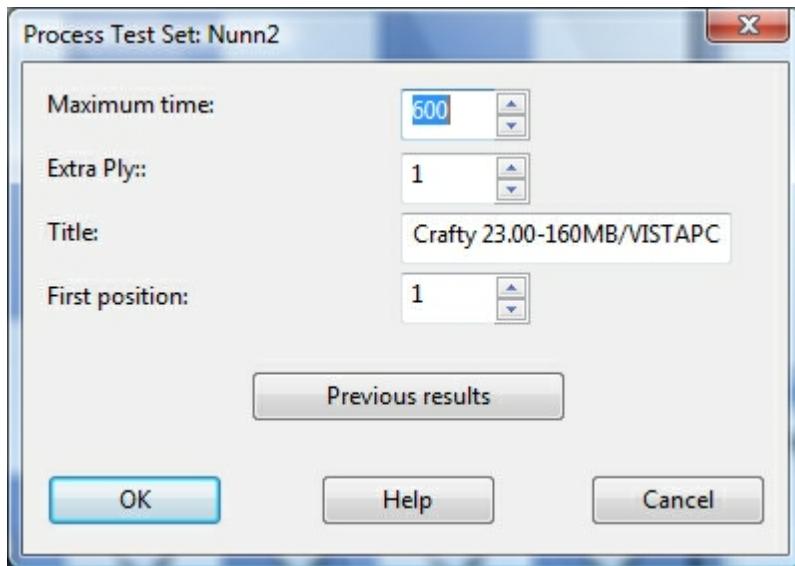
You can run a whole database of test positions automatically. The solution times and values are automatically recorded together with the moves. Even the engine name is noted behind the first move of the solution.

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*.

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:

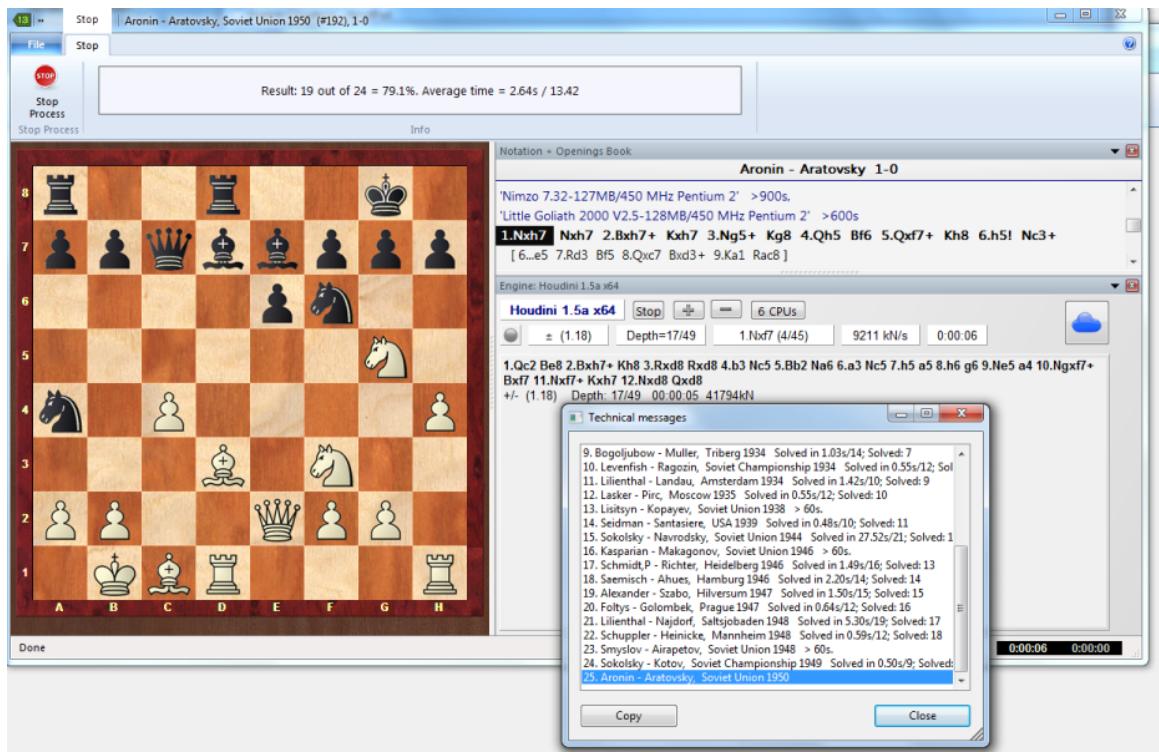
- The number of positions solved in the allocated maximum time per position.
- The average solution time of all the positions that were solved.
- The average solution time of all the positions (including those not solved).

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.

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.

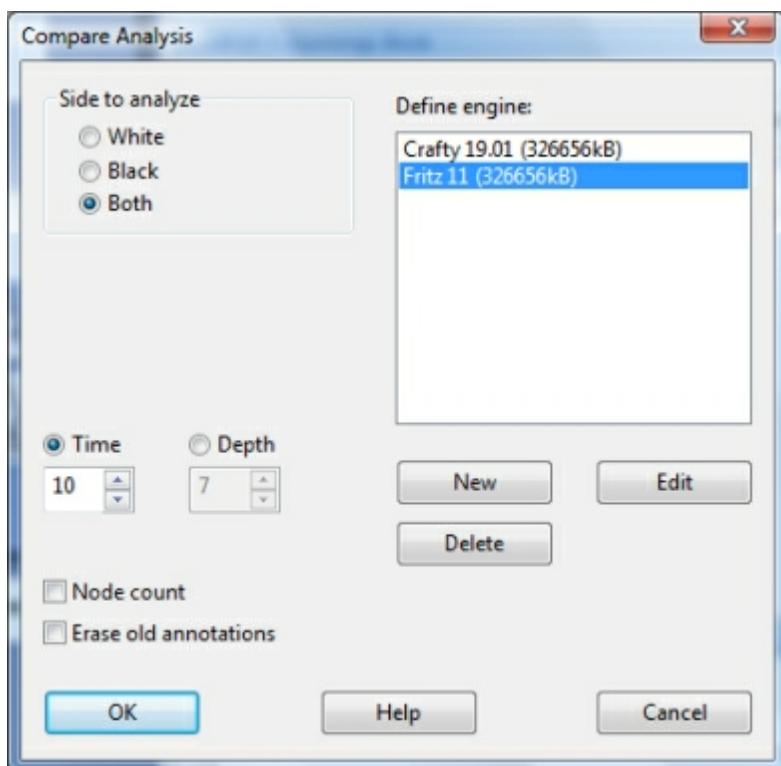


3.8.15 Compare analysis

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.

3.8.16 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, 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).

3.8.17 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.

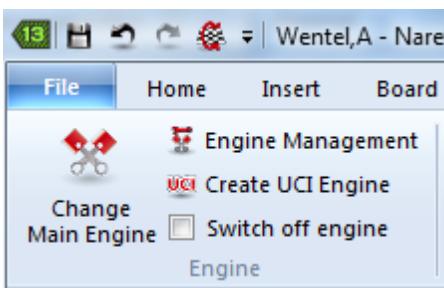
You can see what the program expects you to play in the engine window:



The expected move (Ne7) is displayed in the engine window. It is not available in the restricted playing levels like Sparring, Friend and Handicap.

3.8.18 Engine parameters

Menu: *Engine Change Main Engine Engine parameters*



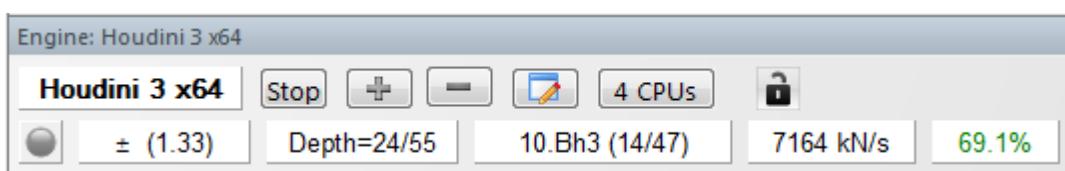
Many of the engines available have special parameters you can set. To do so, click the button "Engine parameters" in the engine window. Now, you can change the settings that affect the playing style of the engine. Each engine will present the parameters that are relevant to its algorithms.

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.

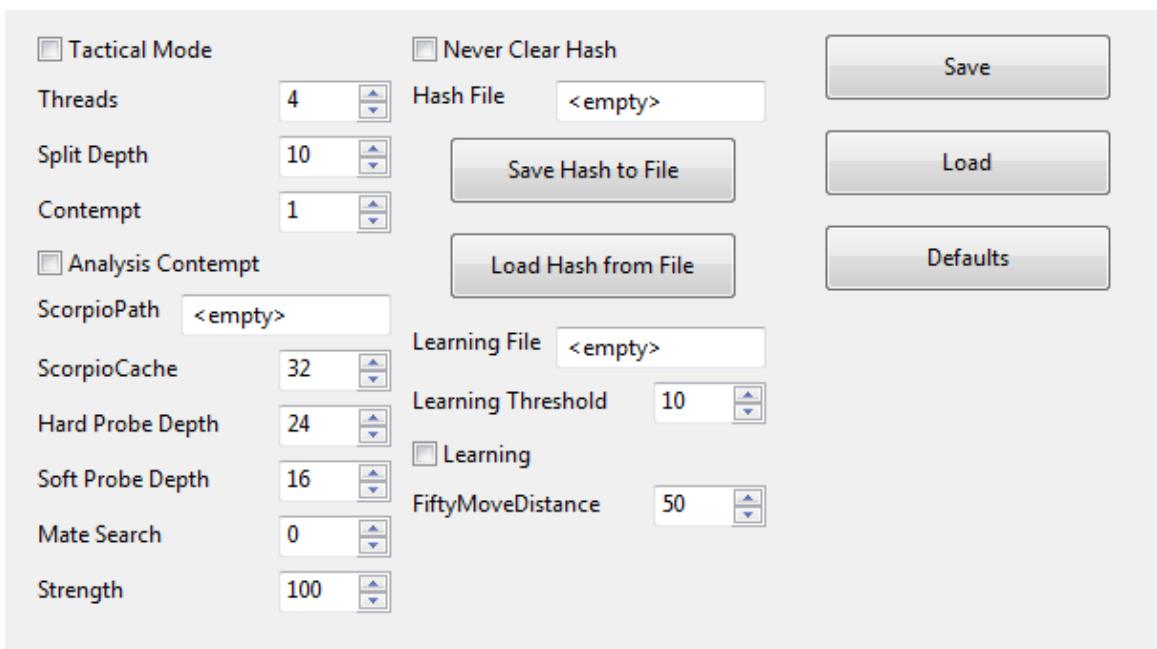
Note: The default configuration of the engine has been carefully tested. It is possible that in some circumstances other settings lead to better results, but for the best overall performance and strongest play it is recommended that you leave the default settings unchanged.

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:



Hash: Amount of hash table memory used by Houdini, in MB.

Default 128, min 4, max 1024 (32-bit) or 4096 (64-bit Standard) or 262144 (64-bit Pro). The value is rounded down to a power of 2 (4, 8, 16, 32, 64, 128, 256, 512, 1024, 2048, 4096, 8192, 16384, 32768, 65536, 131072, 262144 MB).

For infinite analysis or long time control matches you should use the largest hash that fits in the physical memory of your system. For example, on a system with 4 GB of memory you can use up to 2048 MB hash size.

For shorter games, for example 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.

Never Clear Hash (checkbox): This option prevents the Hash Memory from being cleared between successive games or positions belonging to different games.

Check this option also if you want to Load the Hash from disk file, otherwise your loaded Hash could be cleared by a subsequent ucinewgame or Clear Hash command.

Persistent Hash means that the in-memory hash table can be saved to a disk file and reloaded later for continuing the analysis.

The goal is to be able to interrupt a long position analysis anytime and save the hash table to a disk file. At a later date you can reload the hash file in memory and continue the analysis at the point where it was interrupted.

Correspondence chess players could profit from this feature by keeping one hash disk file per ongoing chess game. For that purpose the following procedure can be used.

To save a Hash file to disk:

- End the analysis
- Go to the options window, enter the name of the Hash File (e.g. C:\Chess\Game1.dat)
- Press the Save Hash to File button, and OK in the options window.

To load a Hash file from disk:

- Load the correspondence game
- Go to the options window, enter the name of the Hash File (e.g. C:\Chess\Game1.dat)
- Press the Load Hash from File button, and OK in the options window.

Hash File

File name for saving or loading the hash file with the Save Hash to File or Load Hash from File buttons.

A full file name is required, for example C:\Chess\Hash001.dat.

By default Houdini will use the hash.dat file in the "My Documents" folder of the current user.

Save Hash to File (button)

Save the current hash table to a disk file specified by the Hash File option.

Use the Save Hash to File button after ending the analysis of the position. Some GUIs

(e.g. Shredder, Fritz) wait for sending the button command to the engine until you click OK in the engine options window.

The size of the file will be identical to the size of the hash memory, so this operation could take a while. This feature can be used to interrupt and restart a deep analysis at any time.

Load Hash from File (button)

Load a previously saved hash file from disk.

Use the Load Hash from File button after loading the game or position, but before starting the analysis. Some GUIs (e.g. Shredder, Fritz) wait for sending the button command to the engine until you click OK in the engine options window.

The size of the hash memory will automatically be set to the size of the saved file.

Please make sure to check the Never Clear Hash option, as otherwise your loaded Hash could be cleared by a subsequent ucinewgame or Clear Hash command.

Position Learning

With *Position Learning* Houdini will remember advantageous principal variations it has analyzed by storing them in a learning disk file, for reuse in later games or analysis. The feature is completely transparent to the user, once Learning is enabled the data will be saved and loaded automatically.

The Position Learning is available in analysis and match play. But remember that it will only kick in for certain positions in which there is something to learn, i.e. when the score is significantly above the static evaluation of the position. In quiet, equal positions there's usually not much to learn.

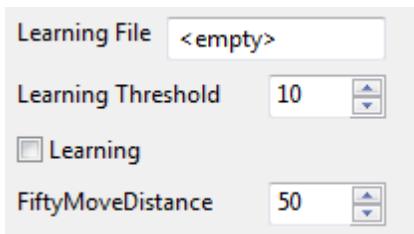
Position Learning works best for positions where a good move exists that raises the score significantly above the statical evaluation. Learning is less useful and sometimes counterproductive for positions where many more or less equivalent moves exist and the goal is to avoid bad moves. To improve the efficiency of the learning the feature only kicks in when a certain positive scoring threshold is exceeded. By default this Learning Threshold is put at 10 centi-pawn (0.1 pawn).

Although the learning file grows very slowly, make sure not to allow the file to grow too large as the automatic loading may slow down the engine at the start of the analysis.

The impact of Position Learning can be illustrated as follows.

When running the Eigenmann Ending Test Suite with 20 seconds/move on a single-core laptop producing about 1,000 kN/s, Houdini finds 77 out of 100 solutions, the total solution time is 12:06. The test run produces a Learning File of about 27 kB. Running the Test Suite a second time demonstrates the profit of the Learning File. Houdini now finds 80 solutions and the total solution time drops to 9:42.

Learning (checkbox)



When Learning is enabled the learning file will automatically be loaded at the start of the analysis, and further analysis will be appended to the file.

When Learning is enabled, automatically the Never Clear Hash option will be activated as clearing the hash would be counterproductive for the learning.

Learning File

File name for saving the learning data.

A full file name is required, for example C:\Chess\Learn001.dat. By default Houdini will use the Learn.dat file in the "My Documents" folder of the current user.

The learning file will be updated at the start of a new game or when you close the engine or GUI.

Learning Threshold

Min 0, Max 200, Default 10.

The Learning Threshold is the minimum positive score of a principal variation that is saved.

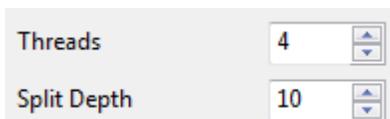
When **Learning Threshold is larger** the learning file will grow slower, as fewer moves will satisfy the condition..

Split Depth

When using multiple threads, the Split Depth parameter defines the minimum depth at which work will be split between cores.

Default 10, min 8, max 99.

This parameter can impact the speed of the engine (nodes per second) and can be fine-tuned to get the best performance out of your hardware. The default value 10 is tuned for Intel quad-core i5/i7 systems, but on other systems it may be advantageous to increase this to 12 or 14.



To see which Split Depth value is best for your system you can use Houdini's autotune command. Run Houdini in a command window (simply by double-clicking on the executable) and type autotune followed by Enter. This command will analyze 4 positions for 30 seconds and measure the average nodes/second for Split Depth values between 10 and 18. Use the value that produces the highest average node speed in your Houdini configuration.

You can set the hash size and number of threads before running the autotune command:

- to set the hash size to 512 MB, type setoption name hash value 512 (alternatively in Houdini 3, type hash=512)
 - to set the number of threads to 3, type setoption name threads value 3 (alternatively in Houdini 3, type threads=3)
-

Tactical Mode (checkbox)

The Tactical Mode was introduced in Houdini 3. When Tactical Mode is active, Houdini modifies its search process and uses some clever tricks to focus on tactical solutions in the root position. In Tactical Mode Houdini becomes a very skilled tactical problem solver.

Note that the focus on tactical moves will reduce the playing strength of the engine, the Tactical Mode is probably about 30 Elo weaker than the normal playing mode.

Strength

Limit strength from 0 (beginner) to 100 (full strength). Default is 100 (full strength).

The strength reduction is mostly based on a combination of two techniques:

- Limiting the number of positions searched - this reduces mostly the tactical strength of the engine;
- Purposely picking a move the engine knows is not optimal - this reduces mostly the positional strength of the engine.

The combination of the two produces a game with both tactical and strategic (positional) flaws.

Contempt

Level of contempt to avoid draws in game play.
Default 1, min 0 (none), max 2 (aggressive).

The notion of "contempt" implies that Houdini will try to avoid draws by evaluating its own position slightly too optimistically. The Contempt level can be chosen between 0 (none) and 2 (aggressive), the default value of 1 should be a good compromise in most situations.

- 0 = No Contempt

The evaluations are accurate and identical for both sides. This is recommended for position analysis in which you analyze alternatively for White and Black. The starting position evaluates as approx. +0.15.

- 1 = Default Contempt

Contempt 1 is primarily based on piece value imbalance, Houdini will value its own pieces higher than the opponent pieces, so will only exchange them if there's a clear positional advantage in doing so.

This also means that the score is evaluated optimistically for the side to move (at most 0.15 pawn). For example, the starting position evaluates as approx. +0.30 when analyzing for White and +0.00 when viewed from Black. This is only recommended for position analysis if you always analyze for the same side.

- 2 = Aggressive

Contempt 2 adds some king safety imbalance, leading to a more attacking style.

The contempt settings are fairly mild and have little impact on the objective strength of the engine. It's hard to say which will give the best results against a given opponent, it may depend on the style and strength of the opponent. One could envisage more pronounced contempt but this would start to degrade the engine's objective strength.

By default the contempt is only activated during game play, not during infinite analysis.

FiftyMoveDistance

The number of moves after which the 50-move rule will kick in.

Default 50, min 5, max 50.

This setting defines the number of moves after which the 50-move rule will kick in - the default value is 50, i.e. the official 50-moves rule.

Setting this option in the range of 10 to 15 moves can be useful to analyse more correctly blockade or fortress positions:

- Closed positions in which no progress can be made without some sort of sacrifice (blockade);
 - End games with a material advantage that is insufficient for winning (fortress).
-

Mate Search

Maximum search depth for mate search.

Default 0, min 0, max 99.

If set, this option will usually speed-up a mate search.

If you know that a position is "mate in X", you can use X or a value slightly larger than

X in the Mate Search option. This will prevent Houdini from going too deep in variations that don't lead to mate in the required number of moves.

End Game Table Bases

For the Gaviota EGTB support you'll need to install the Gaviota EGTB files.

For the Nalimov EGTB support you'll need to install the Nalimov EGTB files.

For the Scorpio bitbase support (introduced in Houdini 3) you'll need to install the Scorpio bitbases.

ScorpioPath

Folder containing the Scorpio bitbase files.

ScorpioCache

Amount of Scorpio cache memory in MB.

Default 32, min 4, max 1024.

Hard Probe Depth

Minimum search depth for EGTB probing that can produce a relatively slow disk access, i.e. a "hard" EGTB probe.

Default 24, min 2, max 99.

A value of 24 corresponds to 12 ply deep, meaning Houdini will only probe if the remaining search depth is at least 12 plies.

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 (for Gaviota or Scorpio)

Minimum search depth for EGTB probing that uses only the memory cache, i.e. a "soft" EGTB probe.

Default 16, min 2, max 99.

A value of 16 corresponds to 8 ply deep, meaning Houdini will only probe if the remaining search depth is at least 8 plies.

You can reduce this value if you are running less than 4 threads. With a single thread a Soft Probe Depth of 6 can be used successfully, with 4 to 6 threads the default value of 16 is more appropriate.

This feature is not available for the Nalimov EGTB, the Nalimov probing code does not support soft probing.

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 ones the programmers consider the strongest for general play.

3.8.19 End Game Table Base support

Houdini integrates the Gaviota EGTB probing code © Miguel A. Balicora, the Nalimov EGTB probing code © Eugene Nalimov and the Scorpio bitbase probing code © Daniel Shawul.

Gaviota EGTB

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.

Tablebases Engine	Tablebases Gaviota	Version
Path 1	<input type="text" value="S:\Tablebases\GTB"/>	Browse...
Path 2	<input type="text"/>	Browse...
Path 3	<input type="text"/>	Browse...
Path 4	<input type="text"/>	Browse...
Cache	<input type="text" value="64"/> MB	Up Down

Houdini will scan the folder for the "kqkr.gtb.cpX" file and accordingly decide which compression level to use.

Nalimov EGTB

For the Nalimov EGTB support you'll need to install the Nalimov EGTB files.

Scorpio Bitbases

For the Scorpio bitbase support you'll need to install the Scorpio bitbases. Download the egbb archives with 180 files (230 MB) in 2 parts from

<http://www.mediafire.com/?du9q8x6nojd3qh6>

and

<http://www.mediafire.com/?5vh54gz9d9cfmh5>

and extract the bitbase files on your hard disk. The bitbases are loaded in memory at startup of the engine.

The location of the Scorpio bitbases is specified in the ScorpioPath option.

Probing Frequency

The frequency of the EGTB probing can be configured with the Hard Probe Depth and Soft Probe Depth options. A "soft probe" will only use the data available in memory, whereas a "hard probe" can require a relatively slow disk access. Soft probing are available only with the Gaviota EGTB.

Houdini will always probe the EGTB for the initial position of the search. If an EGTB mate position is identified, the full main line will be shown immediately. If the initial position is an EGTB draw but Houdini has a material advantage, and if Contempt is active, Houdini will still play for a win - the opponent might be human or an engine without end game table bases.

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, 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.

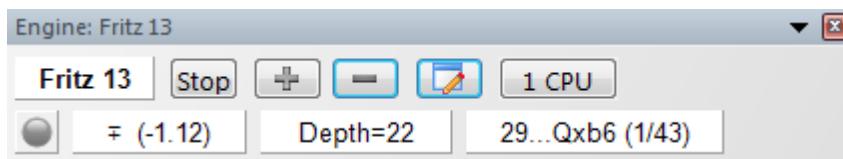
The frequency of the probing is further influenced by the following parameters:

- 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.

3.8.20 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.



3.8.21 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).

The endgame databases are in the Nalimov format and are known as "Tablebases".



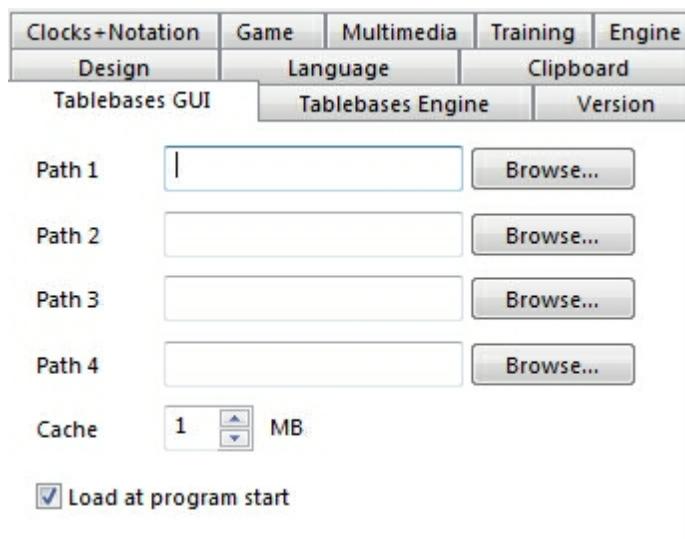
Eugene Nalimov from Novosibirsk (currently in Redmond) wrote the powerful algorithms

to generate the endgame tablebases.

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:



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.



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 identified 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.

Tablebases Engine	Tablebases Gaviota	Version
Path 1	<input type="text" value="S:\Tablebases\GTB"/>	Browse...
Path 2	<input type="text"/>	Browse...
Path 3	<input type="text"/>	Browse...
Path 4	<input type="text"/>	Browse...
Cache	<input type="text" value="64"/> MB	<input type="button" value="Up"/> <input type="button" value="Down"/>

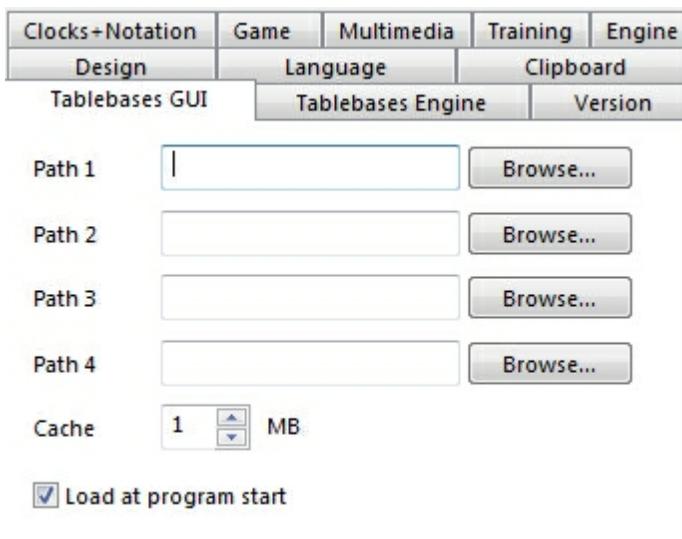
Houdini will scan the folder for the "kqkr.gtb.cpX" file and accordingly decide which compression level to use.

3.8.22 Copy endgame databases to hard disk

File Menu 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:

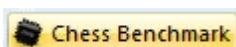


Note that you can put the tablebase files into different directories, partitions or even different hard disks on your computer. Use the "Browse" button to locate the directories.

The *cache memory* is used to speed up access to the tablebases during a game. A value between one and eight MB is advisable.

3.8.23 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 about 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 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.

3.8.24 Engine Interface

The program's engine interface has been adapted to the latest Windows specifications, for example Windows Vista / Windows 7.

This means that all current and future engines will 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.

3.9 Elo ratings

3.9.1 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 written 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.

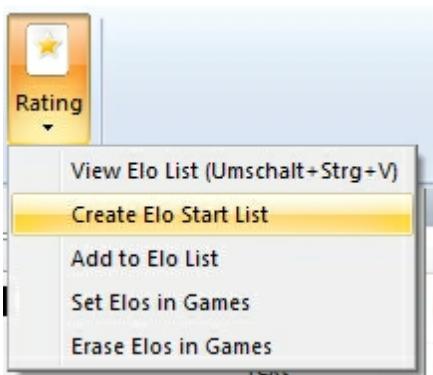
Before you start rating tournaments you should create an Elo start list. This gives all players a plausible initial rating. After that, you must maintain the list by evaluating tournaments as they are played. To do this, mark the games of a tournament, right-click them, then select "Add to Elo list" 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.

3.9.2 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).

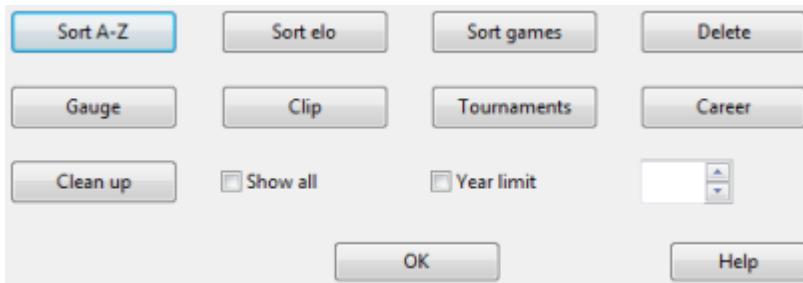
This is how to generate an Elo list

- ▶ 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.
- ▶ 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.

3.9.3 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 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.

3.10 External hardware

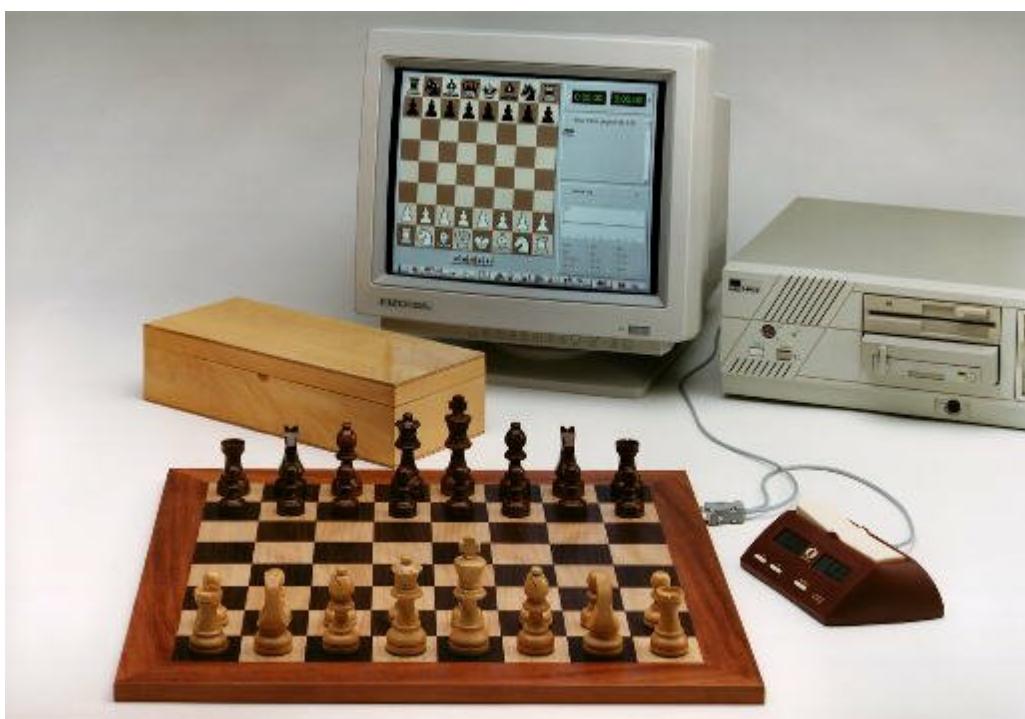
3.10.1 Connect hardware

Board DGT 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.

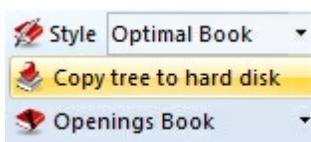


The program can also be connected to the **DGT XL Chess Clock**. This clock displays the time and also the moves that are played. This means you can play on the DGT board, with the clock attached, and you can read the moves of the chess engine off the display of the chess clock.

3.11 FAQ

3.11.1 Copy tree to hard disk not available

Menu Analysis - Copy tree to hard disk



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.

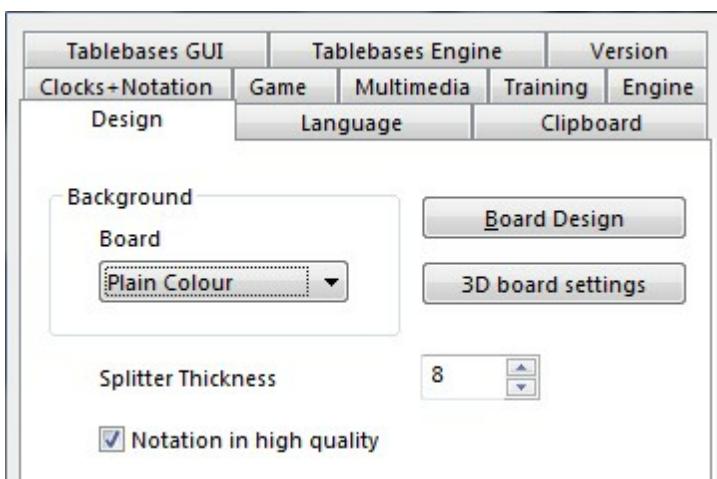
3.11.2 Problems in the display of the list window?

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".

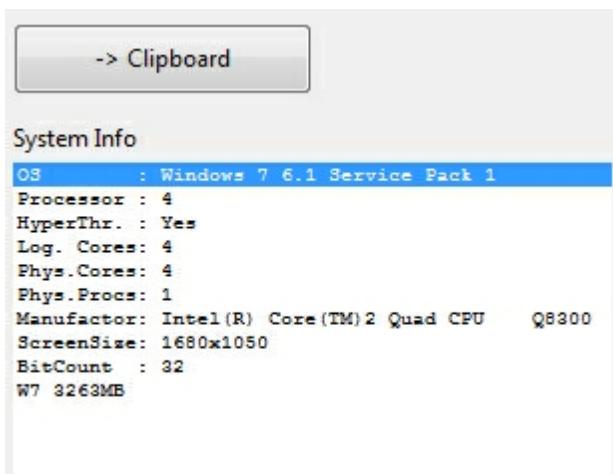


If you deactivate this setting, then the problems with text display which have been described will no longer occur.

3.11.3 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 sends all the necessary information straight to the programmer.

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.

3.11.4 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.

3.11.5 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.

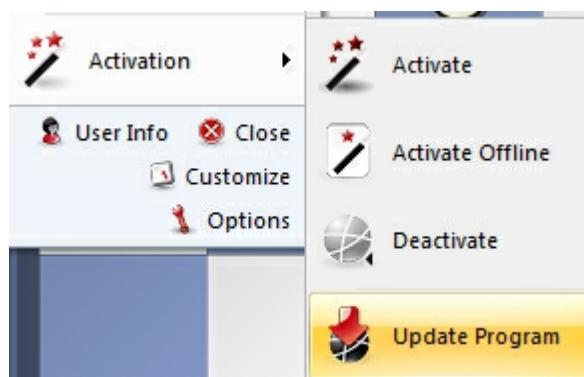
You can easily check this in the database window. Click on the tab "Openings". If there is no key installed, you will see 4 buttons to install one. It is best to either select the Big key or install one from the Mega database, the Big database or the database which is delivered with the chess playing 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.

3.11.6 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".

3.11.7 Admin Tool

In the program folder you will find the separate program "*ChessBaseAdminTool.exe*".

3D	Messages	20.09.2011 00:14
3D10	Prereqs	20.09.2011 00:13
CBase11 Internal	Ribbons	20.09.2011 00:13
ChessProgram12	BuiltupArea.cbw	29.10.2001 12:46
ChessProgram13	Chess32.dll	18.09.2011 09:47
Bitmaps	ChessBaseAdminTool	19.09.2011 12:43
Chatter	ChessProgram13	19.09.2011 12:46
GIF	ChessRes.dll	18.09.2011 09:47
ITMAI	deu	20.09.2011 12:58

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 clicking on the EXE file in the program folder.

Activate starts the dialog for the program activation.

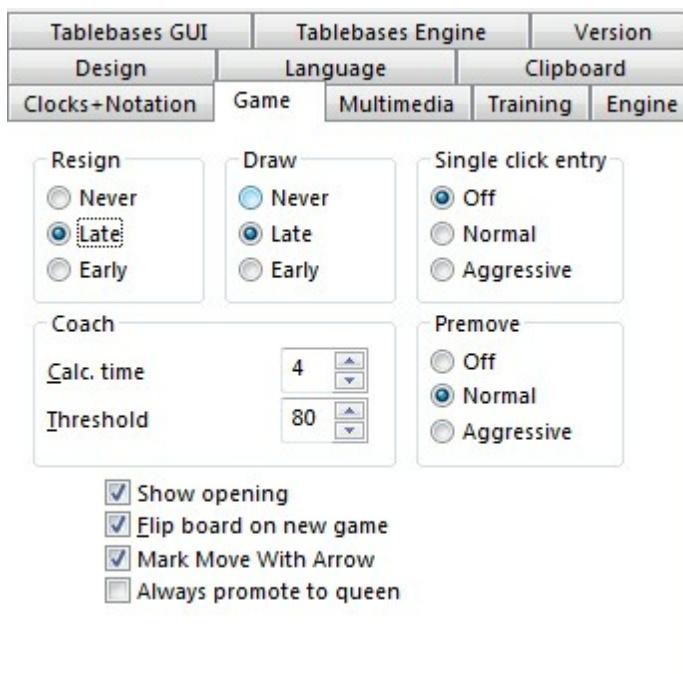
Activate Offline starts the dialog for the program activation on a computer without Internet access.

Deactivate deactivates the selected program version.

3.11.8 Examples

3.11.8.1 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.
- **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.

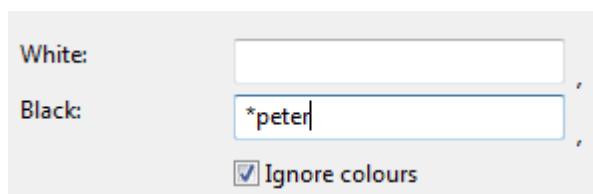
Tip: Before trying out this feature on the chess server and risking valuable ratings points, you should play with the function against a chess engine such as Houdini. The option also works in classical play against chess engines.

3.11.8.2 Database search – watch out for small or capital letters

If you use the search mask in Houdini to look for specific players, the program only selects from the database those entries in 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.

3.11.8.3 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.



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 double 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.

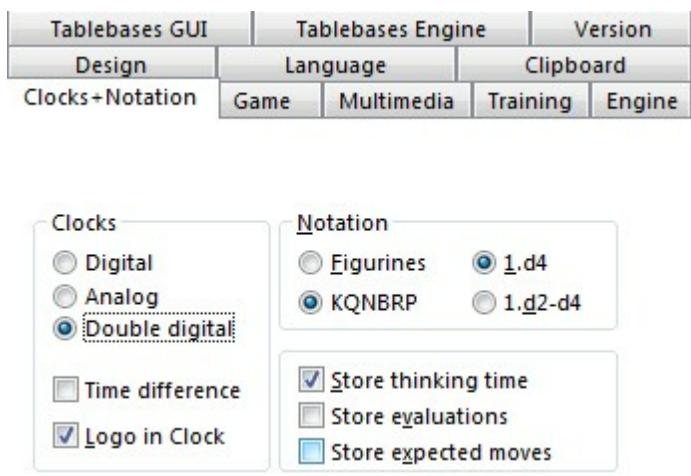
You can also choose to display on the clock the specific difference in thinking time between the two players, either when playing against Houdini or on Playchess.com. This informative representation of difference in thinking time is especially useful when playing blitz or bullet games on Playchess.com.



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.

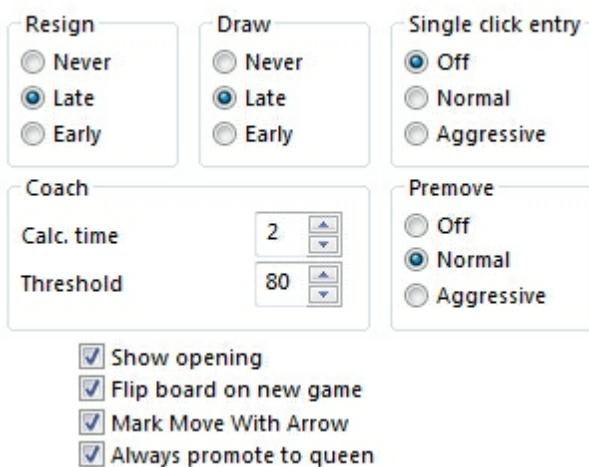


This display can be set up either with a right click on the clock and via the context menu or alternatively via the options dialog under "Menu File - Options Clocks + Notation".



3.11.8.4 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.



3.11.8.5 Notes on rated games

You can play rated games against the program. In this mode you can specify at which estimated Elo strength Houdini should play.

You call up the dialog for rated games by *Training Rated Game*.



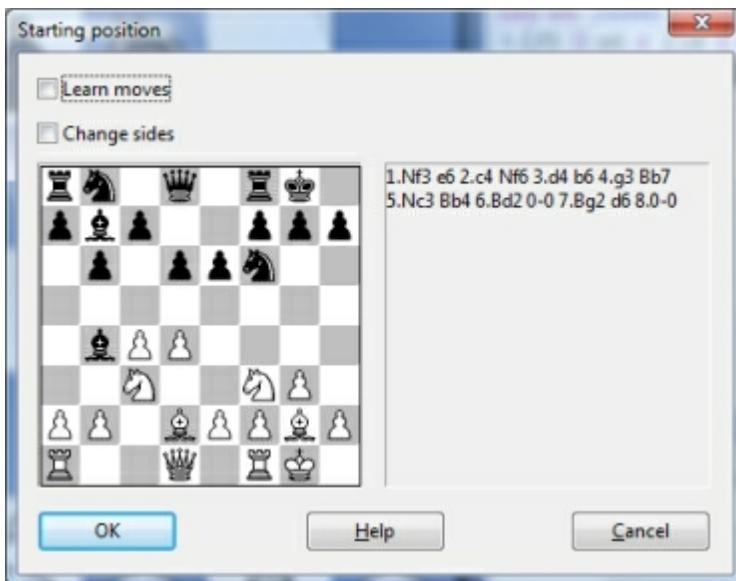
The point of rated games is that both sides start from the same conditions.

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.

3.11.8.6 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".

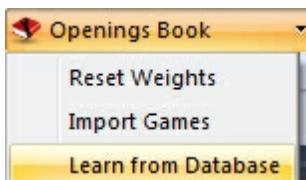
The option "*Change sides*" also makes a lot of sense. You can deepen your understanding of how to treat specific types of position by getting to know the strategies employed by both sides. So with this function switched on, every time you start a new game you have to change sides.

3.11.8.7 Fine-tuning openings books

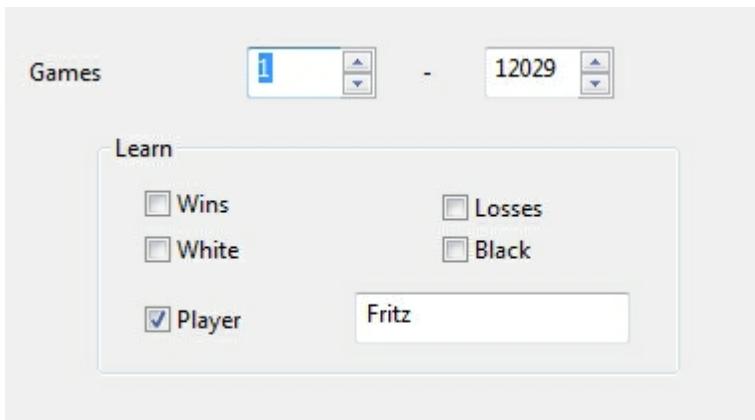
According to the opening, it can happen that a chess program does not perform at its best because it has fallen into an unfavourable opening variation.

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 Houdini & 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.

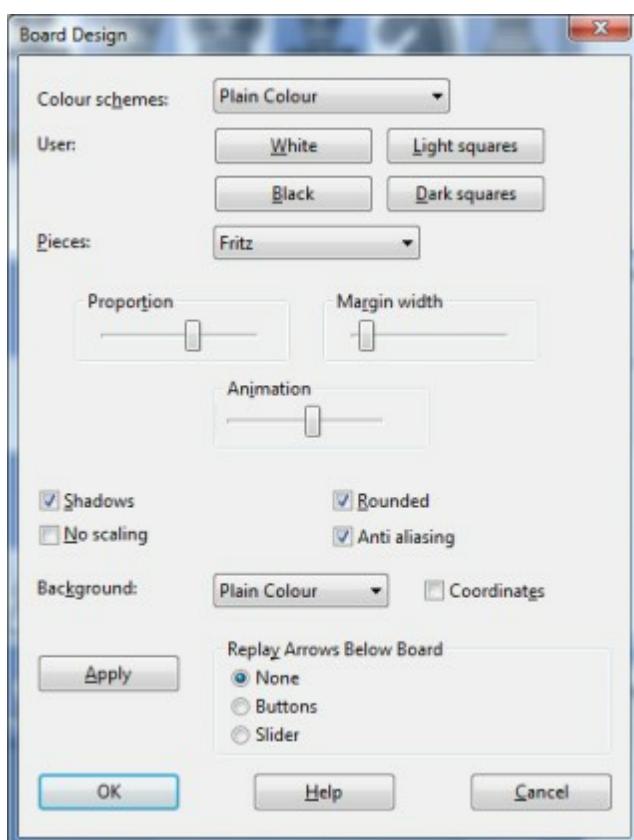
3.11.8.8 Alternative piece designs

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".



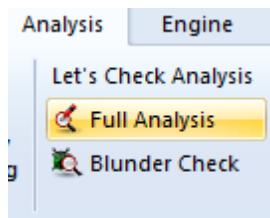
This allows you to select the set of pieces you wish; it will then be used to display the pieces on the board.



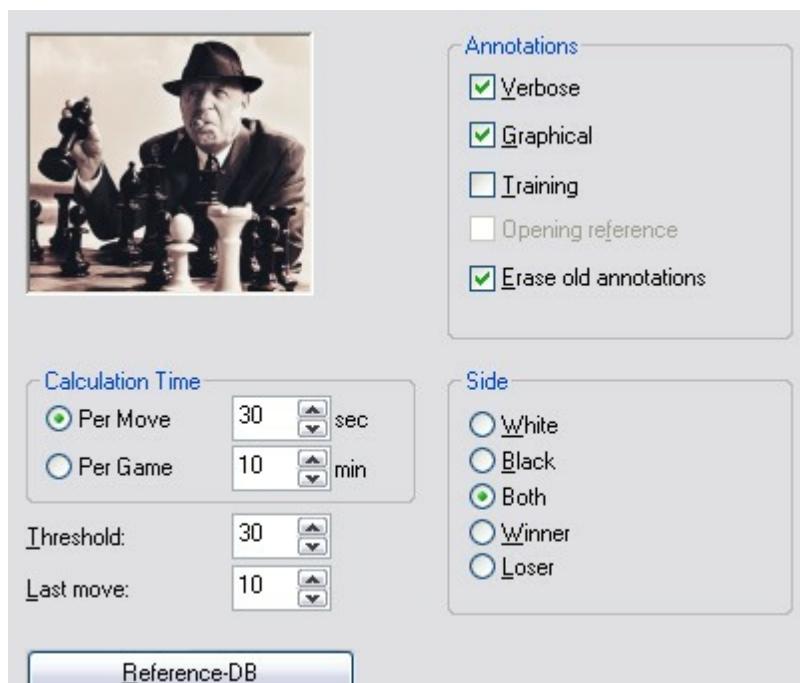
Under *Board - Pieces* you can select the pieces too.

3.11.8.9 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, Houdini 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.

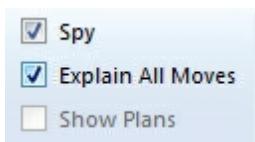
Some users have found it irritating when the entry for the reference database is greyed out and the function cannot be activated.

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.

Note: The DVD ROM contains a large database of games which you can set as your reference database.

3.11.8.10 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.

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.

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'.

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 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)

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 allotted '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.

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 reinstated. 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.

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
(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.

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,
- (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 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.

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 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.
- (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 Ndxdf3, 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.

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.
- (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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