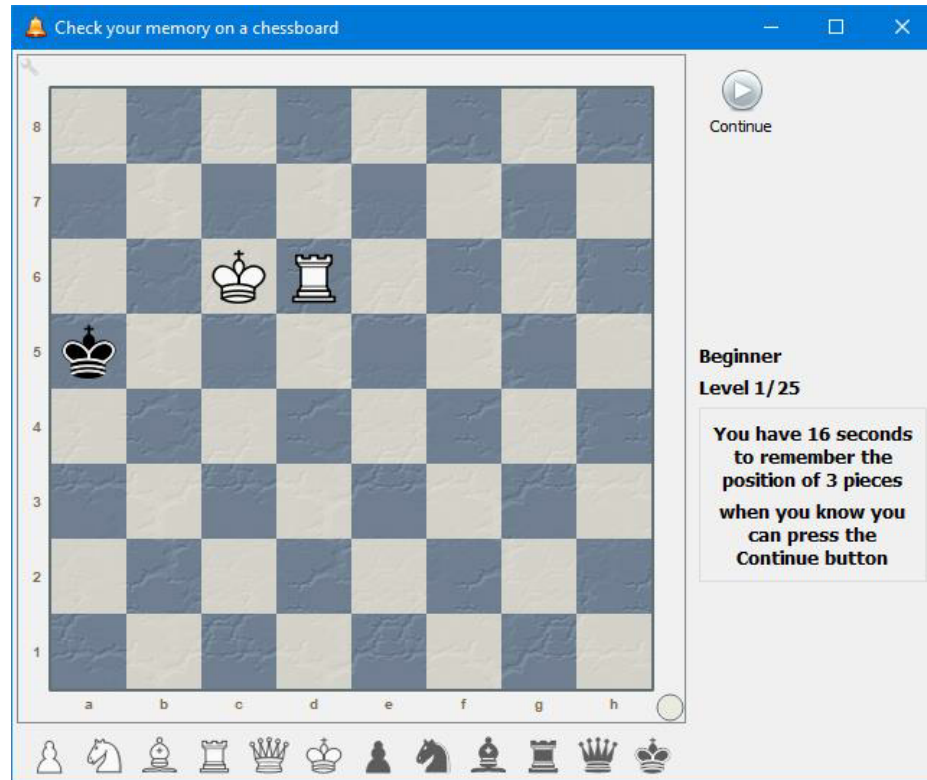# Lucas Chess – Train Guide

The included training tools are very varied and cover just about every aspect of chess, from opening theory to tactics and endgame practice. Most of the trainings can help to better understand chess or to memorize certain key strategies. It's a good idea to try them all at one point to see what suits you.

Basics

Check your memory on a chess board

You are shown a position and have a certain amount of time to memorize it. Then the board is cleared and you try to reconstruct the position by dragging the right pieces to the appropriate squares. Like the competition mode this module has six levels (Beginner, Amateur, etc.) and each level has increasingly difficult sublevels where the number of pieces you need to remember goes up while the time you have for memorization goes down. You unlock levels and sublevels by successfully completing the previous stages. See how far your memory gets you! (Though how this helps is dubious.)

Find all moves

This module has two subcategories: Player and Opponent. Depending on the category you chose, you are faced with positions where your king or your opponent's is in check and the task is to indicate all possible moves that get the king out of check. There is a twist though: The moves have to be indicated in the order king, queen, rook, bishop, knight, pawn. That means make all possible king moves first, then all queen moves etc. until you have made every possible move that gets the king to safety. The moves don't have to be tactically good choices, it's only a matter of finding the legal moves that stop the immediate threat, even if it they create a great disadvantage or result in checkmate on the next move.

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The module has 60 exercises each for player and opponent moves. Double-click to start the first exercise and if you find all moves, the next gets unlocked and so on. Time and errors you made (including moves entered in the wrong order) are recorded. If you have trouble seeing all your options in a chess game, not only in check positions, this training might help you to improve your vision for valid moves. If you Close and return later, the program remembers your place. Note that clicking Config and choosing "Remove all results of all levels" resets the entire board back to zero on all levels.
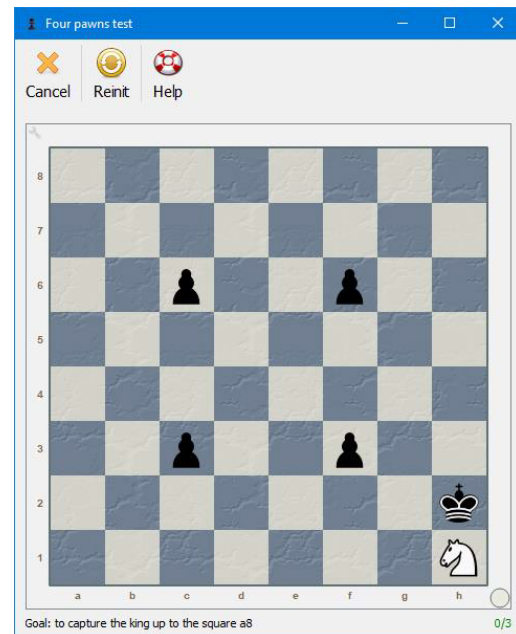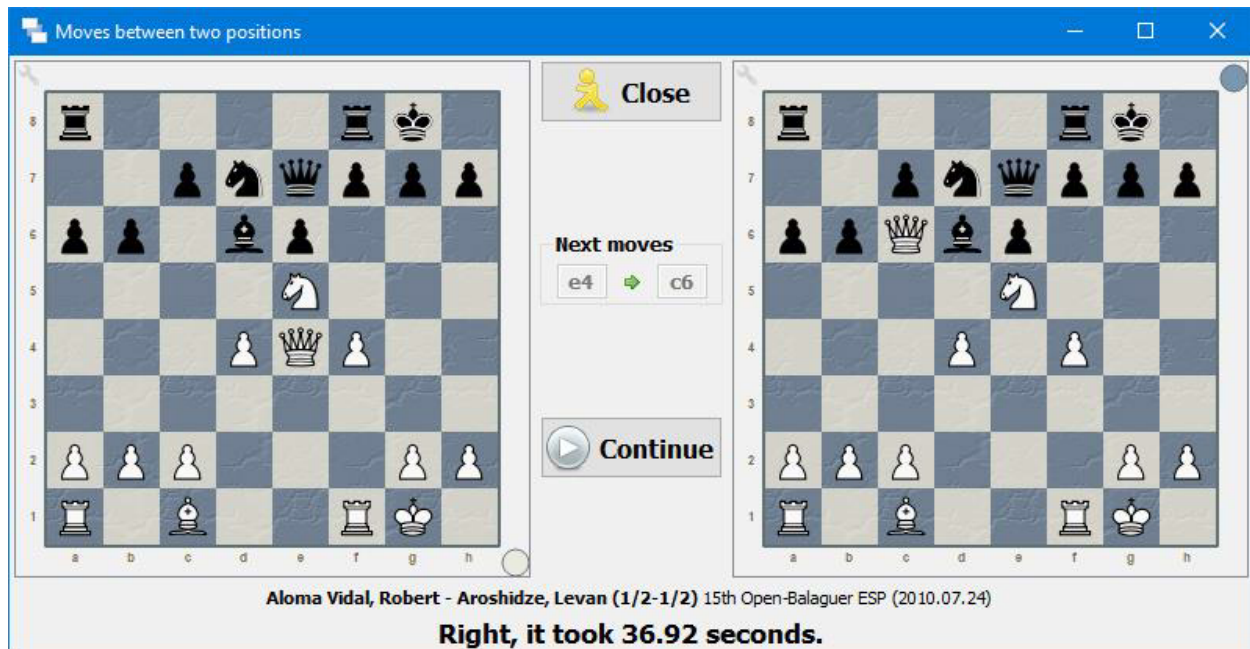
Becoming a knight tamer

These are exercises intended to get a grip on knight movements. You move a knight around with the goal to point it at an unmoving opponent king in order to "capture" it. Some tests also have some other pieces on the board which you must avoid. Meanwhile, after each iteration, the king moves one square down the rank to the end, then up one square, and back the other way on that rank. Ultimately, you must force the king to retreat all the way to square A8. Watching paint dry may be more exciting, frankly.

Moves between two positions

As shown below, this exercise shows you two positions side by side, the right being a continuation of the left. Depending on the level you choose, between 1 and 10 moves have been made to get from the left position to the one on the right. Your task is to indicate the piece movements in the correct order to get from the initial to the final position. For each try your time is recorded and the best (lowest) time for every level is highlighted on the performance list.
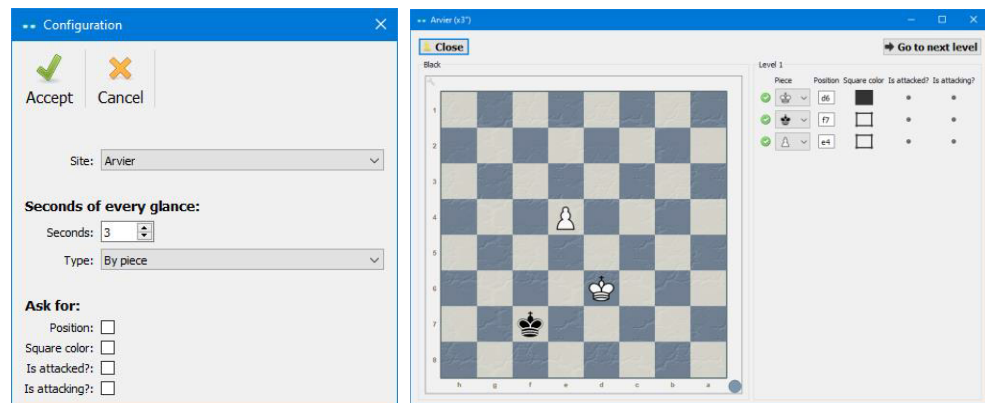
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Aloma Vidal, Robert - Aroshidze, Levan (1/2-1/2) 15th Open-Balaguer ESP (2010.07.24)

Right, it took 36.92 seconds.

This is of course trivial for level 1 where only a single move has happened. From level 2 onwards this training requires an increasing amount of critical thinking and good board vision to determine the right moves, especially when pieces have been captured. The higher levels should provide a good challenge even for advanced chess players.

The board at a glance

Here you can train your chess board memory. You are shown a position for a couple of seconds and then indicate what pieces were on the board. At your option you can also increase the difficulty by opting to be asked about their exact position, the square color, if they attacked another piece or were being attacked. You can set a fixed amount of seconds for the memorization phase or set a number of seconds for each piece on the board. The so-called "sites" represent different series of positions. After each successfully solved position the difficulty increases by adding more pieces to the board. Your performance in each session will be recorded

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together with the settings you have used. Depending on your chosen settings (what information you want to be asked about), this gets really hard pretty fast. (But again, how is this helpful?)

Coordinates

Click on the correct squares as fast as you can - the goal is to click as many correct squares as possible in the time available. There is a simple version of this exercise and one that alternates among "blocks" of squares on the chessboard. Good for becoming familiar with the chess grid.
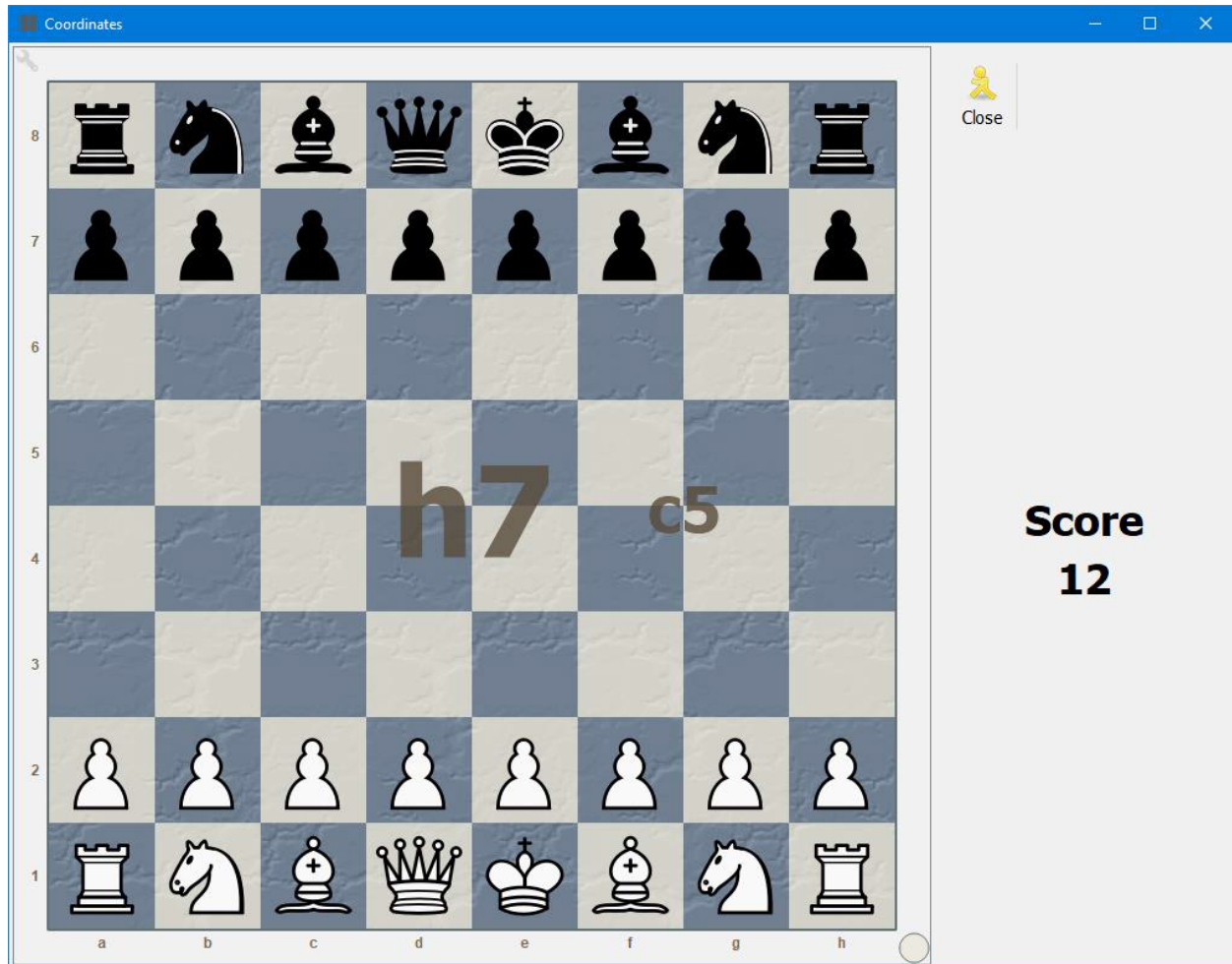
Writing down moves of a game

This is a good exercise for those who need to learn how to read and write chess game notation. As a recorded game is played out, the move is notated in a box above the game board. One must be very precise, including, for example, the "+" mark that indicates a king in check. If you get stuck, click the life preserver! (Each instance of doing that will be counted, however.)

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Tactics

What is the difference between chess strategy and chess tactics? The difference is that a chess strategy is the long-term overall plan for your game whereas your chess tactics are the individual sets of moves that you use to achieve an objective as part of the game. Strategy is the bigger, wider view of the game while tactics are a closer, zoomed-in look at certain moves.
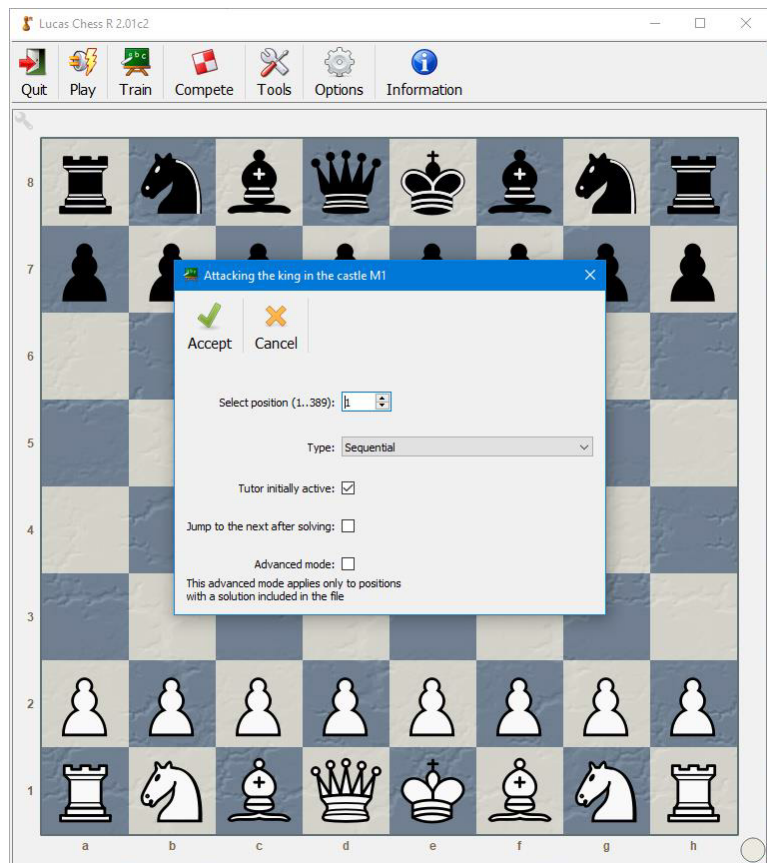
Training positions

The numerous training positions included with Lucas Chess are divided into several categories: checkmates, endgames, pawn endings, singular moves to equalize or win, and general tactics.

There are too many choices to list them all here. Suffice to say that there are dozens of possibilities with various positions and goals.

Each one of the training modules begins with this options screen. It shows the number of the position that will appear next. Type means how the program will proceed from one position to the next; that is, sequential, random, or a combined "Random with same sequence based on position." Select whether you want the tutor to be initially active and whether the program is to jump to the next position after solving the last one. Advanced mode would presumably apply to difficulty or strength of play.

Personal Training appears, with Challenge 101, if you ever played it.

Learn tactics by repetition

This is similar to the Training positions module except that, when an exercise is selected and New is clicked, there is an option to use either "Default settings" or "Manual Configuration" which deals with how often each puzzle will be repeated in blocks of puzzles of a certain size. There is a "Reinforcement" repeat mode for accumulated errors. The idea is to learn by repetition, so evaluating a position and determining the best move come naturally.

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Find best move

With this training feature you can feed positions to an engine, let it analyze them, and then try to find the best move in a set of them. You can use the training positions that come with Lucas Chess by clicking on "New" or import your own by clicking on "Utilities" and then selecting the Import submenu. Your performance is of course critically judged with points and the amount of time you needed to think. Below, the player aced the first two positions, got partial credit for the third, and bombed in the fourth:

Your daily test

This lets you practice to make the best move in a position as a little daily competition with yourself. You get a set of positions (5 by default) and make the best move you can in each. An engine then judges the virtue of your move compared to the other possibilities.

The ratings in the right column are the program's way of rating each of the possible moves; these numbers represent centipawn deductions for inferior moves. Some moves are better, some are worse, but there is only one best move and that is the one with zero centipawn deductions. After you have made your move, you can also toy with the position on an analysis board. At the end all centipawn deductions from every position are averaged to produce your final score for the day.

Note that time is of some value in this exercise and figures into the centipawn calculations.

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The positions you get to see in this type of test are usually of such nature that it's relatively hard to see a move that's clearly better than another. These are not tactical puzzles where the goal is to see the one decisive winning move. It's rather a weighting of possible continuations and their pros and cons.

For that reason the positions are very good intermediate training, especially if you often find yourself in real game positions where you have no idea what to do next. When you have made your move here, look closely at the list of alternatives and analyze why the best move is superior to the others.

For further study, click the Analysis button. This opens another window in which every listed move can be examined. This includes the program's projection of the following set of moves, and the player can choose to play a position at any point in the sequence.

This is the kind of training to pursue once the basic and the tactical have been mastered. Or at least have improved sufficiently to benefit from this training. In the start window you will have a list of your past performances. See if you can improve your score by getting it as low as you can.

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Determine your calculating power

Training is becoming tougher at this point. Here you get tactical positions from real games and you get some time to think about the position first. Then you get a certain amount of additional time to click the board or type a number of "Next moves" (for both sides) in the columns provided. You do not get to actually move the pieces - instead you need to imagine the moves in your head. This is excellent training for your tactical aptitude and positional memory at once. When you are finished, click on "Verify" and your moves will be graded against the best engine lines. You score well in this test, you're on your way to becoming a grandmaster!
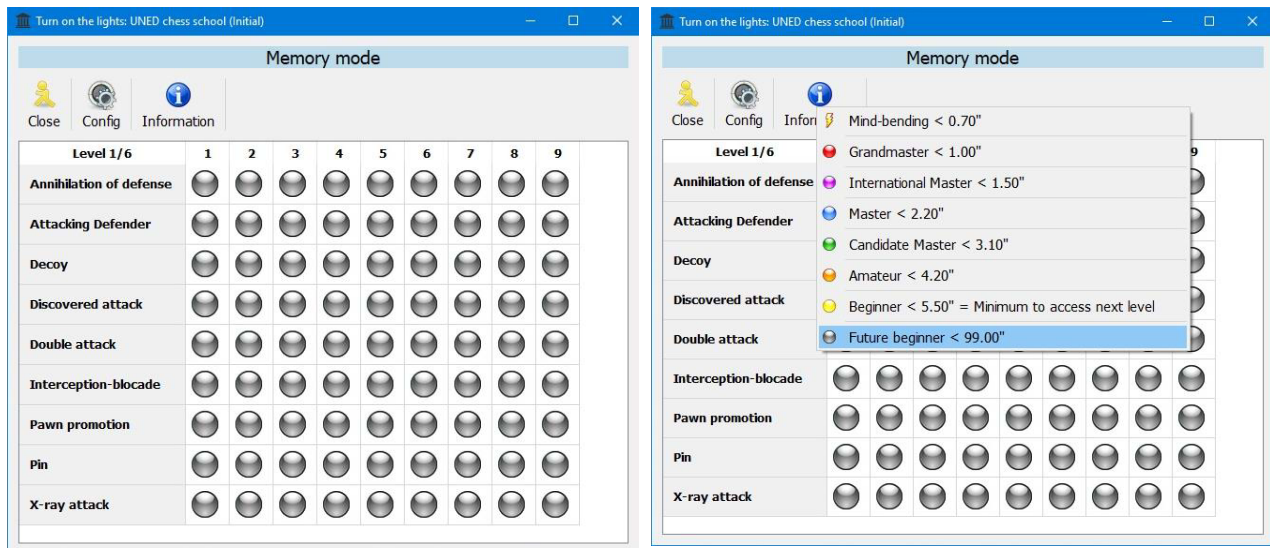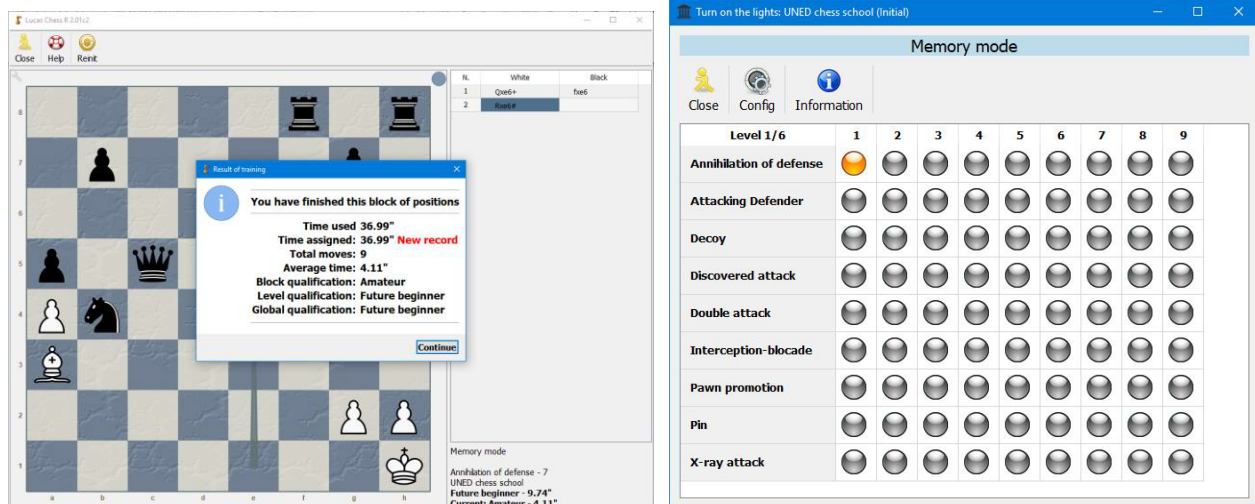
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Turn on the lights

This is a colorful training project in which the object is to light up this board:

Each "bulb" represents a block of positions which must be solved as quickly as possible. The goal is to get a score low enough for a bulb to be lit.


There are two main modes: Memory mode and Calculation mode. The difference appears to be in when the timer starts; overall in Memory mode and only when a piece is moved in Calculation mode. That may make it seem easier to play in Calculation mode but one must be accurate and fast when moving in comparison to memory mode. The threshold times to achieve all levels are lower in Calculation mode. Each of these modes is further sub-divided by the works of the UNED chess school and someone named Uwe Auerswald.
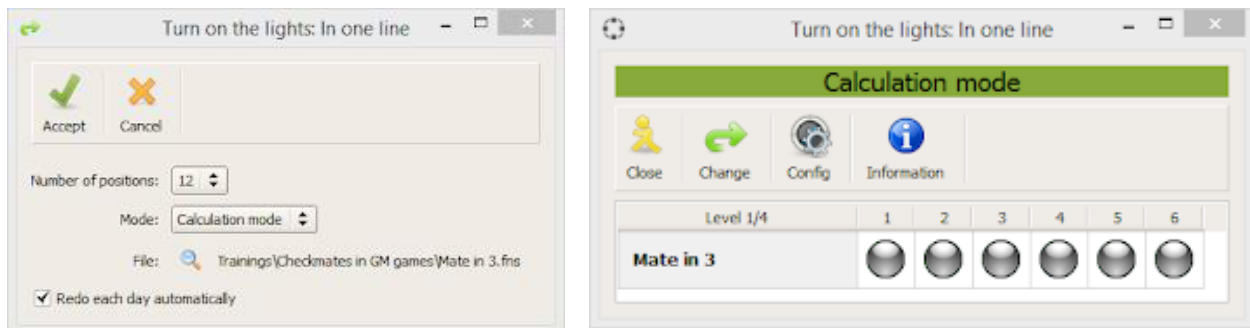
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Double-click a bulb to begin. One may replay each block repeatedly, attempting to improve the color of the light; i.e., move up in status for that block. Right-click a bulb for a history of the block.

With time spent and your skills honed, it should be possible to have a board that looks like this:
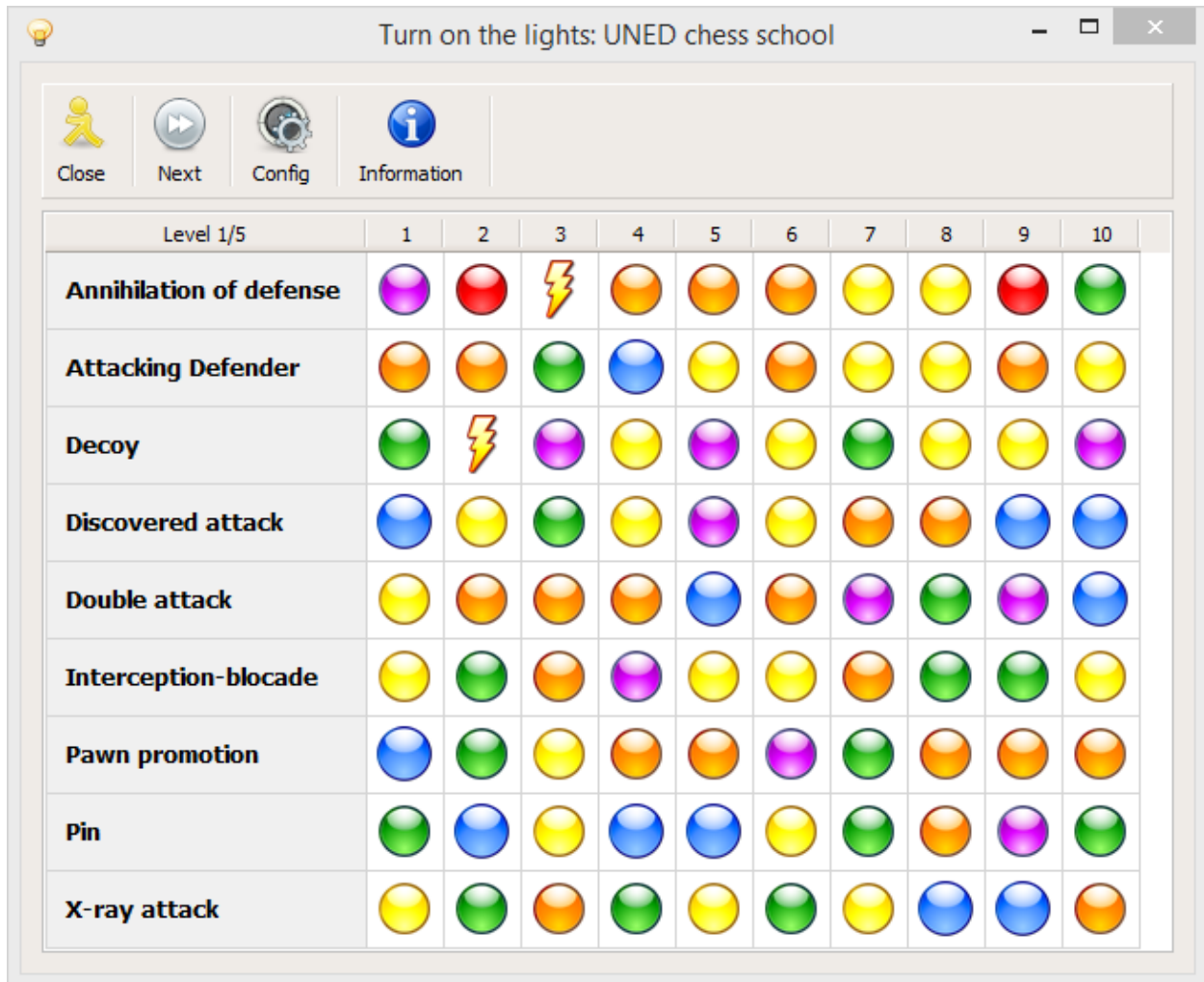
There is a third optional mode to "Turn on lights in one line" which is intended for daily training.

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Games

Play Like a Grandmaster

Here you are in the position of a chess grandmaster and try to emulate his moves to the best of your abilities. Game databases for seven grandmasters are already included and you can download dozens more at the click of a button. You can either use the whole dataset of a GM and branch into specific games as you go, or you can pick one single game from a list.

If you wish, your own move attempts will be judged by an adjudicator engine with adjustable settings; the default engine is Stockfish. You can make the adjudicator display its comparison only when you stray from the grandmaster's path or you can have it judge every move.

Deviations are usually rated as centipawn rating deductions from the grandmaster's move down to yours. However, it is actually possible to play a better move than the grandmaster did, in which case centipawns are added back to your score.

There are additional tabs in the startup screen, for Advanced settings and your Track record playing as this grandmaster. The track record is separate for each grandmaster.
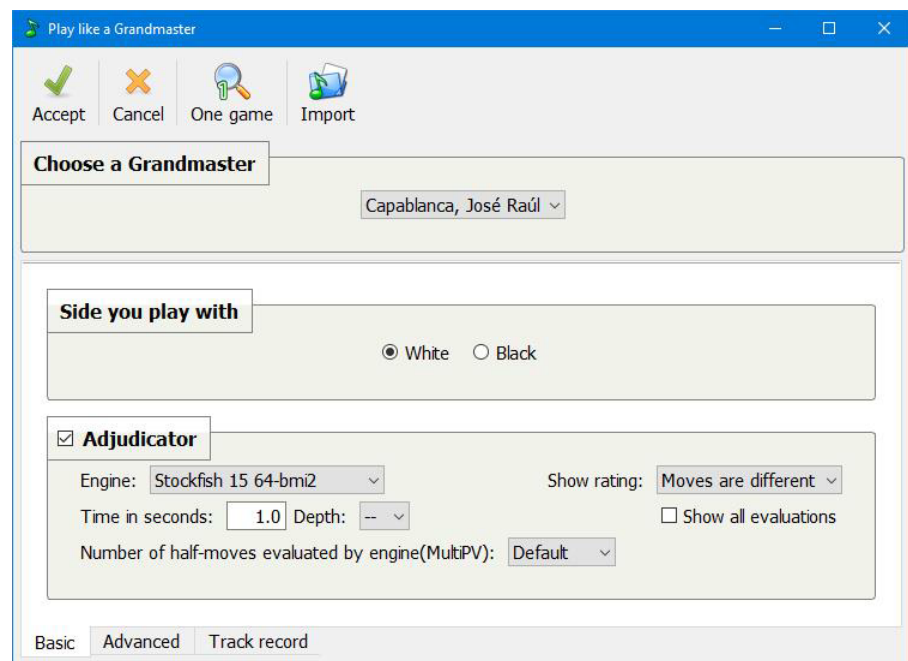
When you play with the complete game database for a grandmaster, you automatically branch into the included games as you make the appropriate moves. If you are in a position where multiple continuations from different games are possible and you make none of these moves, a menu will be displayed where you can pick how you would like to continue. In the lower right corner, below the move table, you will see which game you are currently playing.

This type of training is not very creative as, in essence, you are following a script. Much can be learned, however, by trying to figure out why the grandmaster made the move that he or she did. At any point, including the end of the game if it wasn't checkmated, you can choose to "Play current position" by choosing that option in the Utilities menu. Of course, by doing so, you end the training session.

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Captures and threats in a game

Click New, pick a game or play one at random. Click Begin. Nothing happens. That's because you are expected to identify which pieces can be captured and what the opponent is threatening on the next move. Naturally, there is nothing to report before the first move of the game, and for several turns after that, so you leave the boxes blank and just click "Verify." The program flashes each move on the screen but does not move the pieces, nor can you do so. What you must do is memorize moves and see the chessboard in your mind. At least, if you get something wrong, it displays the last position solved.

No doubt the great chess players would be adept at this but the vast majority of us are not going to do well. The purpose is in question; one normally plays with his or her eyes open and able to take in the position without the extra burden of memorizing the moves. It is great training for those who want to play blindfold chess except for one thing: the program does not announce the moves audibly. One must be viewing the screen to know what has been played. This is not one of the more useful training exercises.

Count moves

This is similar to the above, requiring one to memorize the moves and visualize the resulting piece positions throughout the game, but here you are to report the total number of moves which are available to play for each side in its turn. Again, if you get it wrong, the program returns you to the last position solved. And again, it sounds like a good idea but for most chess players it will be an exercise in tedium and frustration. It's best to avoid this one for there are better ways to learn.
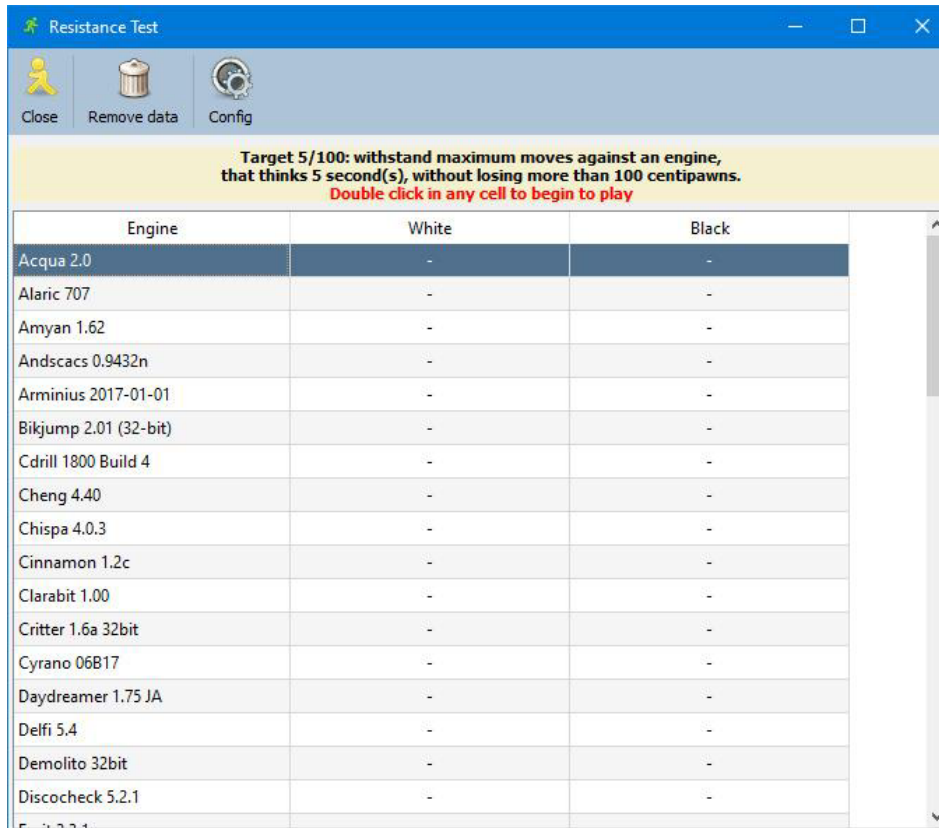
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Resistance test

If you are a masochist, you may find yourself spending a lot of time here. Hopefully, you do so for the other reason: to toughen your skills and stamina and become a better chess player.

The task is to play against an engine and to get as many moves as possible into the game without losing too much evaluation points. By default the engines are set to calculate for 5 seconds and the game over threshold is 100 points – click Config to change these settings. It's a good idea to just keep the default settings or decide on different parameters from the very beginning to have an equal measure for all tries. You can play against any engine you like and the move depth is recorded in the list separately for games you played as white or black.

During the game you will see your current points in the lower right under the move depth. For every move outside the book your score will be adjusted according to its evaluation by the engine adjudicator. As long as you have a positive score, you have an advantage over your opponent, but when your score goes below minus 100 (if you kept the default setting), you will have lost the challenge.

This player is about to "get the boot" after only 10 moves!
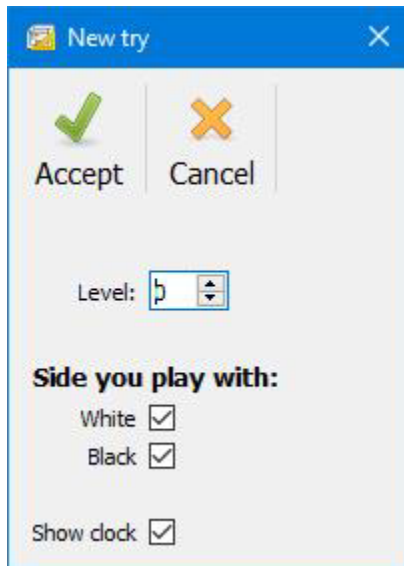

Incredibly, there are versions of this exercise in which one plays Blindfold Chess or, for just a bit of a break, "Hide only our pieces" or "Hide only opponent pieces." So you think you're good at chess, eh? Come here and find out for sure!

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Learn a game

No, not learn "the" game (chess). Learn "a" game. That is, somebody else's game of chess.

There are two versions. The first is "Memorizing their moves." Click New and choose a game. Then click Learn, then Train. Set a level and whether you are going to play one or both sides. Including the clock is optional.

This is similar to "Moves between two positions" in that the second board on the right is always as many half-moves ahead of the left as the level you have selected. For example on level 2 both black and white have moved once compared to the left board.

Remember, you can choose to play white, black or both sides. Your time as well as the number of errors you have made will be recorded for the score list.
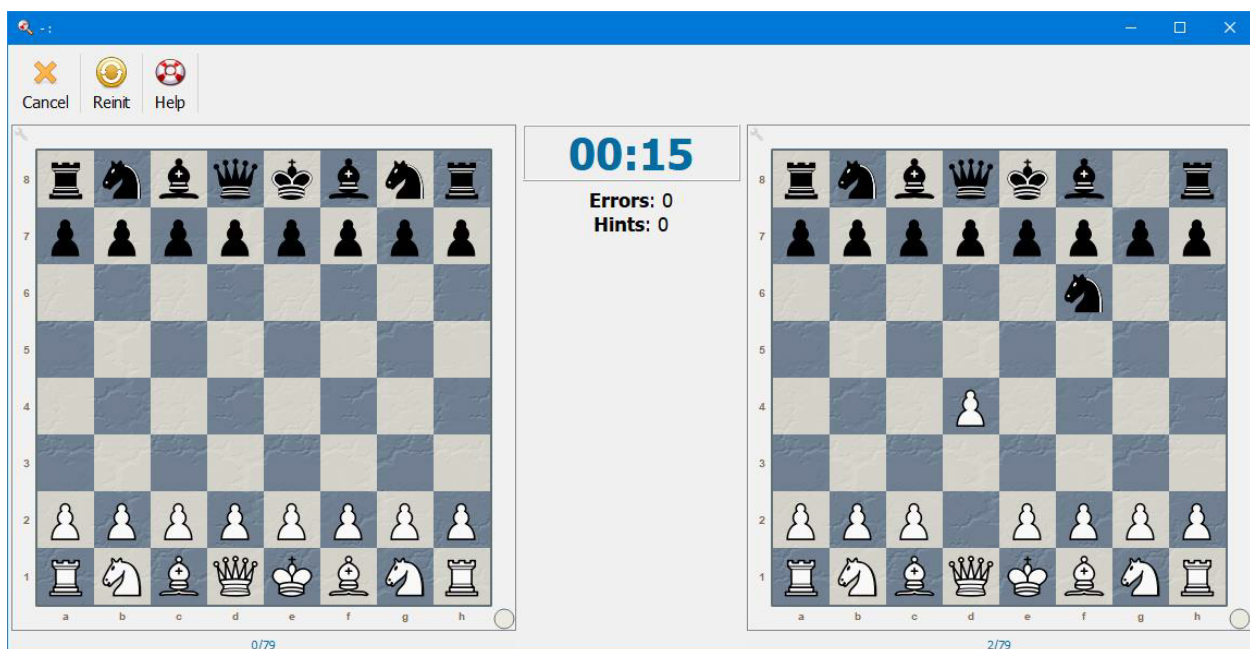
The second version is "Playing against" in which again, you pick a game and a side to play (no play both sides option in this one). You guess the initial moves; there seems to be no deduction for missing opening moves but deviations thereafter are penalized and corrected.

Byrne, Robert-Contoski, Victor : 1960.08.08 St. Louis, MO USA

Score in relation to:

Byrne, Robert	-13
Stockfish 15 64-bmi2	-41

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Openings

Training with a book

This allows you to train openings with the whole book, but you can set some criteria for your own moves and the opponent's. The following options are available for the opponent move: selected by the player, uniform random (every move has the same chance to appear), proportional random (more popular moves appear more often), or always the highest percentage. For yourself you can enforce that you always have to play the highest percentage move.

During the training session the opponent will of course pick his moves according to your settings. If you make a move that is not a standard book move or if you have set highest percentage for yourself, but make another book move, a menu will appear that shows all possible continuations and their percentages. At the end of a book line you can see how many moves were made and how often you needed guidance.

Be sure to display PGN information (Config, Show/Hide, PGN information) to see the name of the opening that is being played. If it still does not show, right-click on the moves to display it. In time, you should know the name of the opening without looking; to some extent at least.

There is no creativity in this exercise either; it is intended to reinforce your knowledge of book openings. Wrong moves are corrected right away and the player follows the "script" until the end of the book opening.

The number of correct moves (which will be much less, of course, if you choose the "Always the highest percentage" (move) for yourself) will be reported as a percent of correct moves to the total opening moves. For some openings, the line can be quite extensive, maybe a dozen moves or more before the end.

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Endings

Training mates

Here you can train mates on seven levels from mate in 1 to mate in 7. You start a session by double-clicking on a row of the table on the right. The training sessions are divided into blocks with the number of positions declining from Mate in 1 to Mate in 7. For each position your errors and the total time taken for the block will be counted. There is also a help tool that shows the next correct move if you get stuck, but each use of the help counts as an error. Good play opens up the next level. In Config, there is the option to "Recreate all levels and start over" to provide position variability.

Mate in 1½

Find the mate in 3 half-moves (plies). These screen prints will explain how. Click New, then Begin.
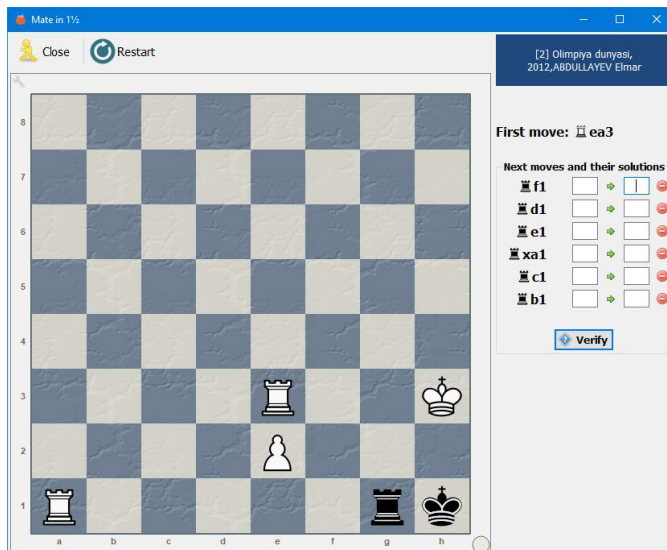
The top image shows the beginning of the exercise. "First move" refers to the move that you are about to make, only you must visualize doing so because no pieces are actually moved in this exercise.

Then, for each of your response moves that your opponent may make, you must provide the third half-move that will result in checkmate. When finished, click "Verify" and see if you are correct. All responses must be correct to advance. If there are any errors, try again on those until they are all correct.
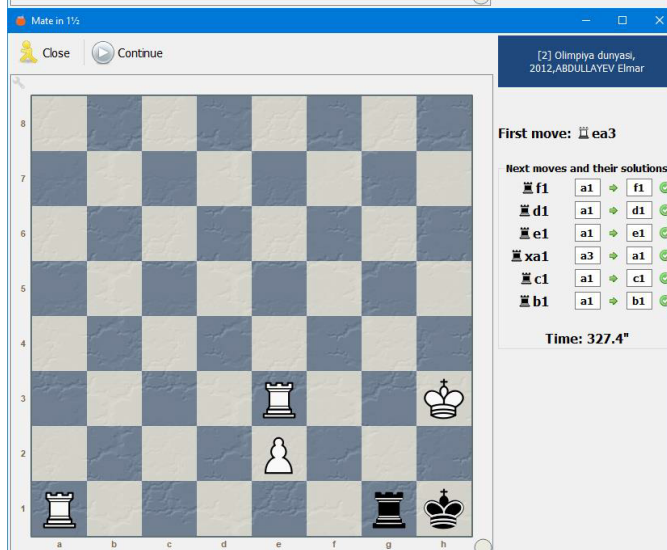
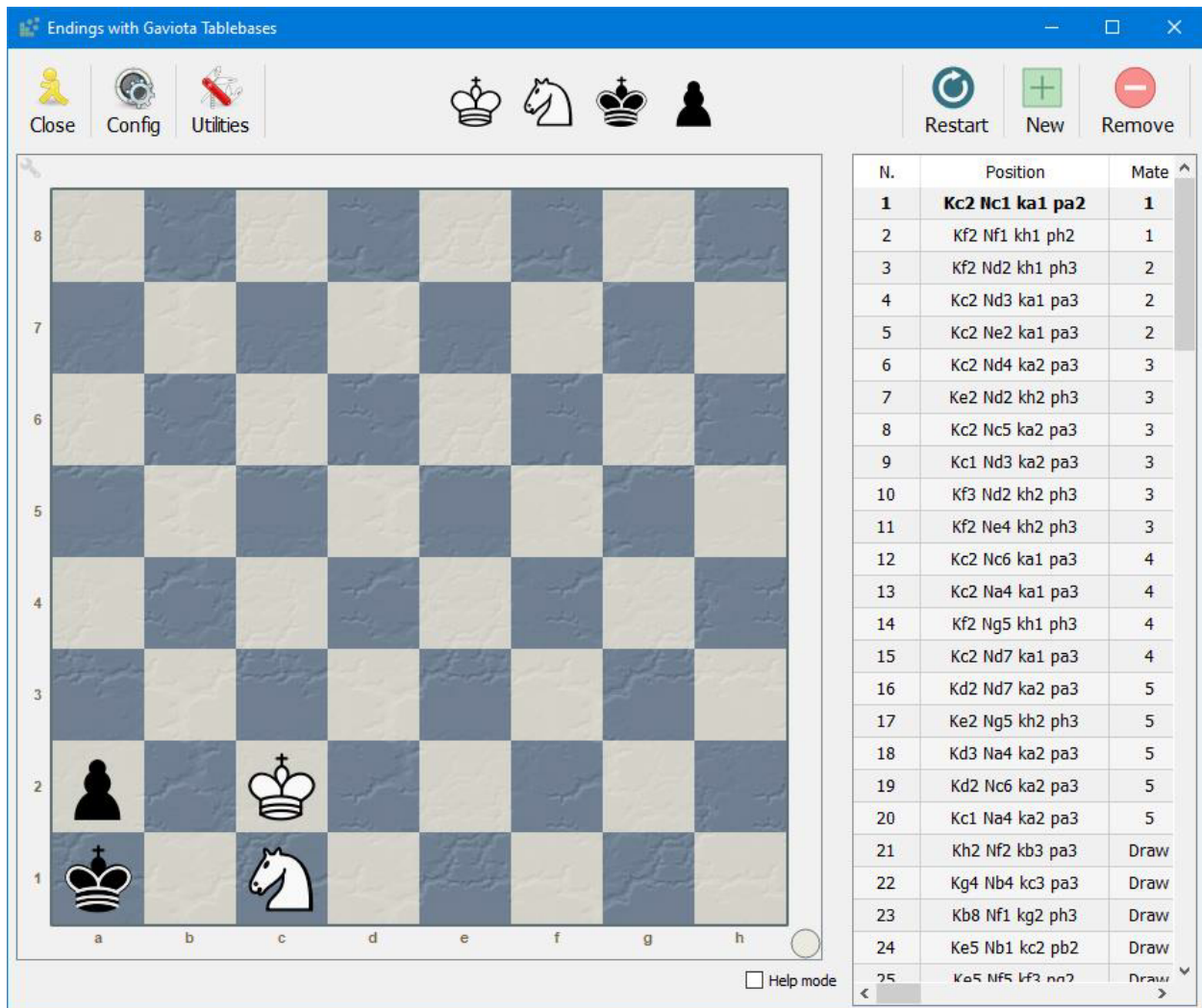As in most other training exercises, the amount of time needed to complete this one matters.

Endings with Gaviota Tablebases

Gaviota is the name of a chess engine developed by Miguel A. Ballicora which is used to generate endgame "tablebases" of distance to mate information; that is, how many moves are needed to checkmate the opponent, or be checkmated. Here, it provides a bunch of "Mate in X" puzzles.

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In Config, Order of positions can be set for "Initial," "By Difficulty," or "Random." Alternately, one may click the symbols in the top of the screen to select from various combinations of pieces for the setup. Also to be selected is "What to do after solving," either "Stop" or "Jump to the next."

N.	Position	Mate
1	Kc2 Nc1 ka1 pa2	1
2	Kf2 Nf1 kh1 ph2	1
3	Kf2 Nd2 kh1 ph3	2
4	Kc2 Nd3 ka1 pa3	2
5	Kc2 Ne2 ka1 pa3	2
6	Kc2 Nd4 ka2 pa3	3
7	Ke2 Nd2 kh2 ph3	3
8	Kc2 Nc5 ka2 pa3	3
9	Kc1 Nd3 ka2 pa3	3
10	Kf3 Nd2 kh2 ph3	3
11	Kf2 Ne4 kh2 ph3	3
12	Kc2 Nc6 ka1 pa3	4
13	Kc2 Na4 ka1 pa3	4
14	Kf2 Ng5 kh1 ph3	4
15	Kc2 Nd7 ka1 pa3	4
16	Kd2 Nd7 ka2 pa3	5
17	Ke2 Ng5 kh2 ph3	5
18	Kd3 Na4 ka2 pa3	5
19	Kd2 Nc6 ka2 pa3	5
20	Kc1 Na4 ka2 pa3	5
21	Kh2 Nf2 kb3 pa3	Draw
22	Kg4 Nb4 kc3 pa3	Draw
23	Kb8 Nf1 kg2 ph3	Draw
24	Ke5 Nb1 kc2 pb2	Draw
25	Ke5 Nf5 kf3 pg2	Draw

Long-term endings

Rather than discuss these "arcade-style" exercises, none of which are any more documented than all of the other aspects of this program, suffice to say that they appear to be frivolous time-wasters. It is not even worth the time to detect and document how they work, given how that amount of time could be spent with other training exercises offered in Lucas Chess.

If one is bored with chess training, these playthings will hardly be useful for learning how to play chess. However, if one is ever done learning and training in everything necessary to play the great game of chess well, then by all means one may look into "Training on a map," "Transsiberian Railway," "Expeditions to the Everest," and "The Washing Machine."