Chess Position Trainer 4 - Manual

by Stefan Renzewitz © 2012

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1   Chess Position Trainer 4

1.1   Installing the Program

Chess Position Trainer runs under Windows Vista, Windows XP, Windows (32bit and 64bit) and needs the Microsoft .Net Framework 3.5 installed (which should be already installed on your system if you apply Windows updates regularly). If you download the program from www.chesspositiontrainer.com the installer will check if your system meets the requirements.

The program creates a folder under "My Documents" which is called "Chess Position Trainer 4". In this folder the program copies an example database (ExampleDatabase.cpt) and an example PGN file (Amarok.pgn). Both are used for the step-by-step tutorials in the section *Common Tasks (p. 22)*. The example database should be automatically loaded if you run Chess Position Trainer 4 for the first time. It contains an example opening for the "Closed Sicilian", which allows you to get familiar with the program without having to care of creating an opening first.

Then, under the same folder the program will create backup folders for a daily, weekly and monthly backup, if activated. When you start the program for the first you will be asked if you want to activate the backup system (you can change the folder for the backups). It is highly recommended to activate the backup functionality. Although the program has been thoroughly tested as a matter of fact any software has bugs. The risk to get a corrupted database due to external factors has to be taken serious too (e.g. sudden loss of power or a virus). That's why any serious database program offers backup-mechanism, so does Chess Position Trainer 4.

1.2   Welcome to Chess Position Trainer 4!

Chess Position Trainer (CPT) is the perfect solution to manage your chess opening repertoire in a more efficient way than you probably do today. It helped already thousand of chess players around the world to improve their opening play. This has been achieved by two major, unique approaches.

Natural Representation of your Opening Repertoire

How do you work on your opening repertoire today? Many chess players don't use specialized chess software to manage their openings. Instead they use classical game databases. When game databases were original con-

ceived the creators probably didn't have in mind opening repertoires. This leads to a workaround by creating pseudo games with variations which is neither intuitive nor efficient, but common practice.

CPT works very different as it was created with opening repertoires in mind from the beginning. Instead of storing games it stores positions and candidate moves for each position regardless of any concrete game (you can compare it best to editable opening books of game databases). This helps you to spot transpositions from one opening to another one automatically. Then it offers you a way to structure your opening in logical (sub-)sections by using folders, openings and (sub-)variations as repertoire elements. By introducing this new layer you will quickly realize how much more intuitive and easier it is to manage your opening repertoire.

Name	Score
Standard	
White	
Bb5 Sicilian	0%
Scandinavian	0%
Pirc and Modern Defe...	0%
Closed Sicilian	0%
Caro-Kann	0%
Bishops Opening	4%
Alekhine	0%
Sicilian Grand Prix Att...	0%
Attacking with e4	0%
Black	
1... b6	0%
Sicilian	
Dragon	0%
The Chinese Dr...	
9. 0-0-0	
White Takes...	
12 Bd4!	
9. g4!?: A Positi...	
The Classical - ...	

Opening Repertoire Explorer
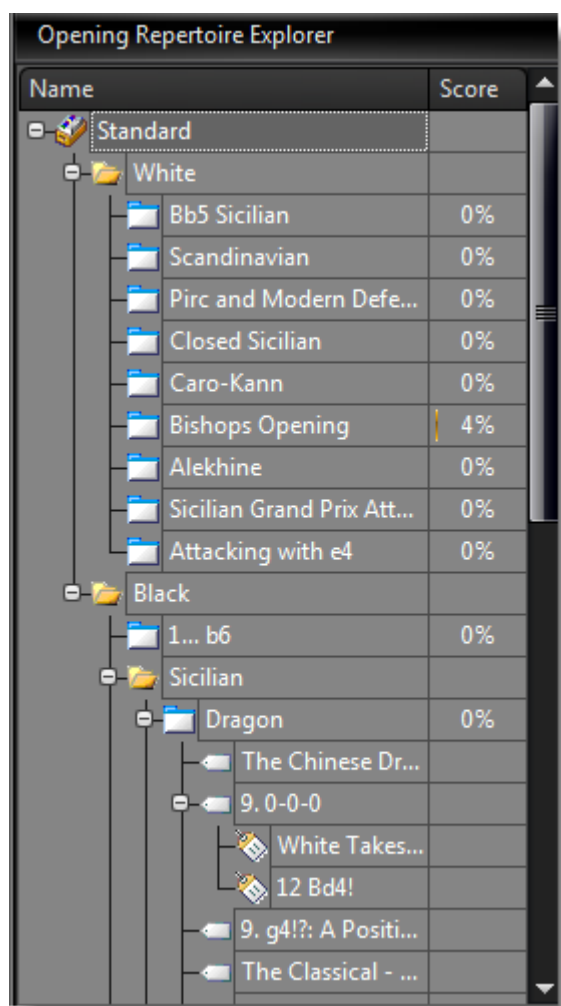
Training your Openings efficiently and thoroughly

How do you train your opening repertoire? Are you sure you know your complete openings? Do you have any gaps? While many chess players at least manage their opening repertoire somehow, it is amazing how few train it efficiently. That's actually the moment you can save most time with an efficient tool. The time you save for remembering your openings can be greatly used to learn the ideas of the arising middle games.

So, what does CPT do? In a nutshell: CPT trains you in your individual openings. It plays the opposite side and focus on those positions which you know least - automatically.

Although chess players are known to be smart and logical people, it is surprising how inefficient many chess players approach their goal to improve their chess opening skills. If you compare learning chess with learning a foreign language it's surprising that it was Chess Position Trainer only in 2004 which introduced the flash-card concept to chess software. Till then chess players had either no way to get tested in their openings or it was totally randomly which is not much better. CPT changed this by automatically storing training results and then focusing on the weaknesses of the user. This new version will put this approach to the next level by introducing a space repetition methodology to chess software. Basically it means that the program schedules learned positions for recall based on your past results. It aims for an 80% recall rate which means you will forget about 20%. This is a good ratio between repeating positions too early (and thus wasting time) and forgetting too many positions.

If you ever learned a foreign language it is clear that you just have to learn by heart vocabulary and grammar and then practice them in real life situations. In chess you can compare the vocabularies with positions (and the correct move) and grammar with tactical motifs, ideas or common acknowledged rules.

How did you remember the vocabulary of your foreign language? Just by reading through them? Not very likely. Still, many chess players will tell you that learning by heart is nothing you should focus on, but understanding the ideas (=grammar) is all that matters. Maybe the reason behind this is that it doesn't sound smart or even cheap to learn things by heart and win a game just based on this knowledge advantage as it doesn't require any chess skills. However, in many openings the move order is basically forced and it is the only part of the game you are guaranteed to play. Furthermore to create a repertoire which ensures you only reach middle games you like to play requires actually quite some chess skills (and then the argument you have to learn rather ideas is valid as you better understand the plans and ideas for key middle games of your openings).

Modern software programs for learning foreign languages are using some kind of flash-card concept to provide you an efficient way to remember your vocabularies and grammars. CPT uses the same idea, but applied to chess. It makes sure you are not overlooking any part of your repertoire and it does this in a very structured, automated way. This is the beauty of it: you don't have to care about the logic in the background, CPT does for you!
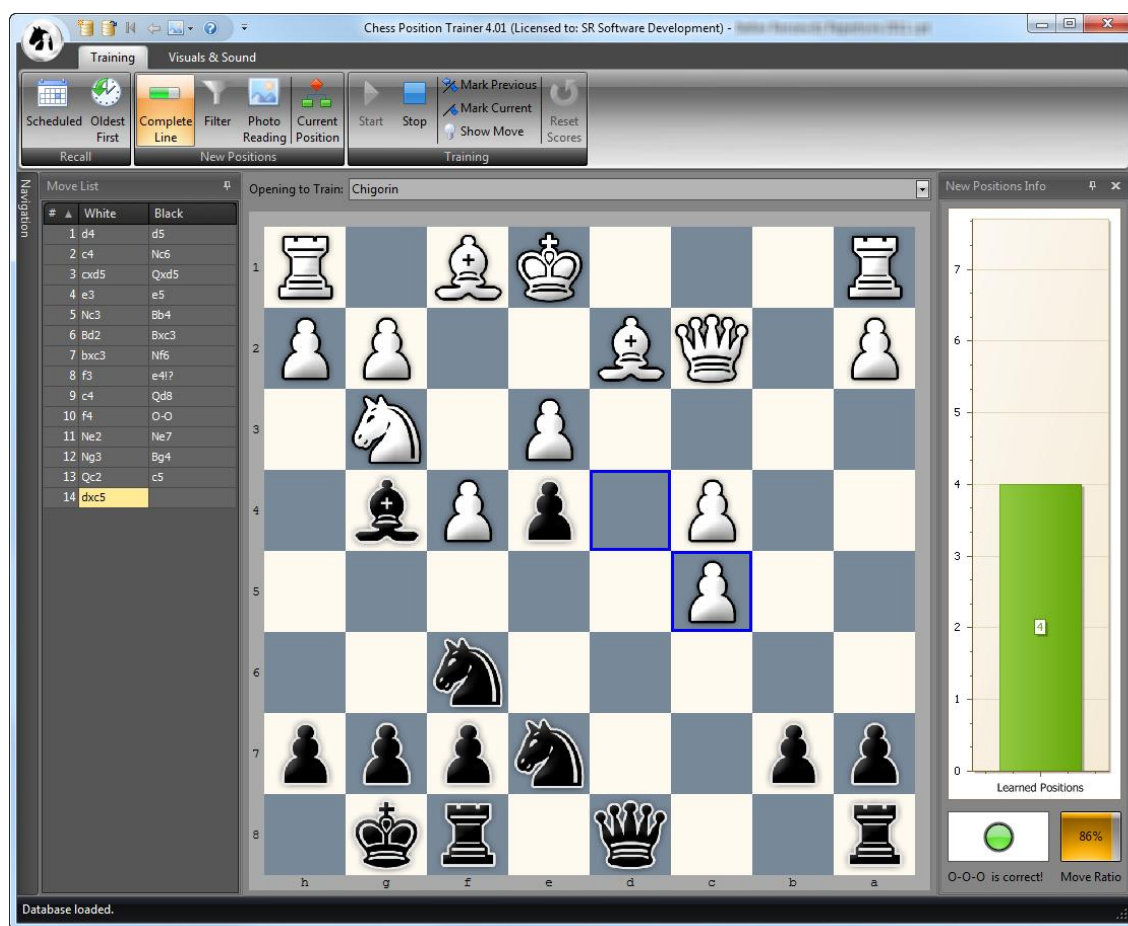
Also, it is not only about learning by heart. Even if you are never using the training feature of CPT it will make your chess life easier. Actually, creating an opening repertoire can become an interesting research task. You can study chess opening books, game databases etc. and then create a plan how to reach only middle game positions which suit you. This is easy to write in one sentences, but certainly for most of us a life-long task. CPT will be a great company for you on this journey!
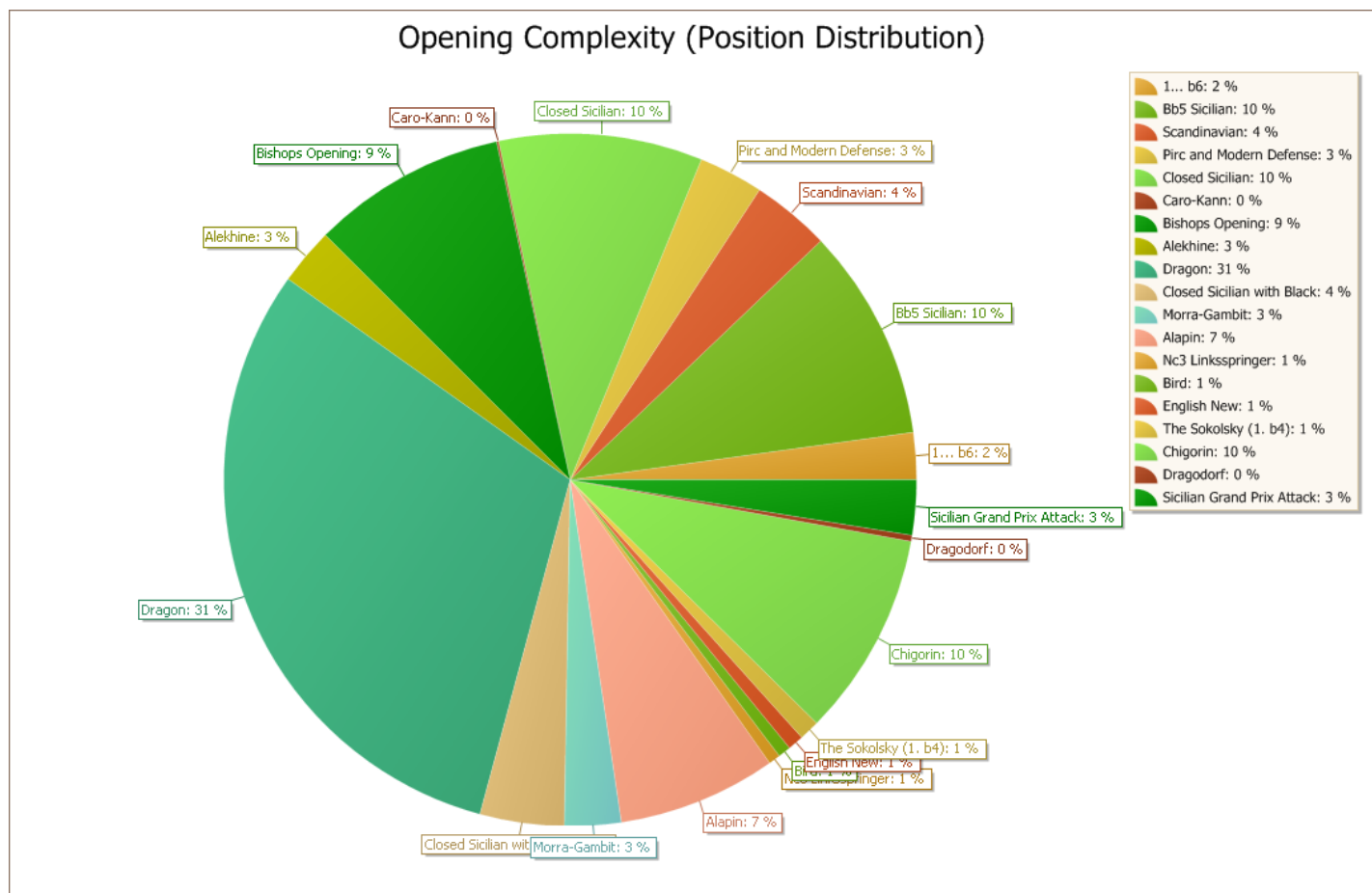
Enough theory, let's have a quick look at some of the major features of CPT:

- A position database concept instead of game database is more natural and avoids pseudo games. Navigation ease

- Unique concept to organize your opening repertoire. You can represent it by using folders, openings, variations and sub-variations.

- Innovative training mode with almost endless options to suit every training style will ensure that you train your repertoire the way you like it and as efficient as never before at the same time. Meet your next opponent confident that you know your repertoire!

- Scheduler shows you when you have to recall learned positions before you are about to forget them!

- Blindfold training mode helps you to improve your visual skills.

- Indicating your opening knowledge by a percentage number to give you confidence
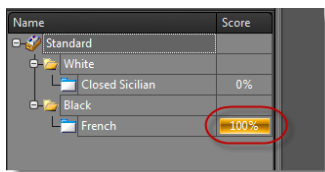
- Learn from every game you play (including online blitz), because the key information is no longer more than one click away! Stop your laziness as the author of CPT finally did by using the "Run games against Repertoire" function.

- Import any PGN files to fill-up your repertoire quickly (don't miss the free downloads on the homepage of CPT).

- Chess engine support (from version 4.1 on) to analyze key positions

- Scalable: you have an opening with over 70,000 moves? Don't worry, CPT won't slow down!

- Powerful functions like the min-max function to automatically calculate forced winning (or losing) lines based on leaf node evaluations.

- State-of-the-art user interface which you can customize to your likings (including Skins)

- Comprehensive statistics provide an import insights into your repertoire

Chess Position Trainer is aimed at ambitious and serious chess players who already study or want to study chess (e)books, CD's and use chess databases as well as chess engines to improve their chess skill. It will become probably your perfect addition to these other chess tools and you will appreciate this little chess tool if you ever were looking for a more efficient way to manage and study your chess material.

Just one last example: The very handy support to run your played games against your repertoire database will let you quickly realize how much more efficient your chess study will become. Actually you will probably no longer waste useful information for example from played games, because you were too lazy to look-up where you or your opponent went wrong or played a novelty. Once configured this information is available within a few seconds. You get to the critical position by one click and by another simple copy & paste action you can analyze it with your favorite engine (in a future CPT version some engines will be already integrated). Think for a moment how do you achieve the same right now, if you are making that effort at all?

With all the information which CPT is gathering it is possible to give you finally a single and trustfully percentage number reflecting the knowledge of your own openings.

This little number will soon become a major motivator for you and at the end learning the vocabulary of chess is turning out to be a lot more fun than you ever thought it could be and far away from a dry job (heck, even developing this tool was fun!).

Let me know your success story, how Chess Position Trainer helped you improving your chess skill and write me at stefan.renzewitz@chesspositiontrainer.com!

Sincerely,

Stefan Renzewitz – Creator of Chess Position Trainer

1.3   What's new?

This new version represents the biggest improvement since the first version of CPT was released. Though, if you have used a previous version you should still easily feel comfortable after a short time.

User Interface changes

CPT is a well known for its intuitive user interface. The new version will further improve it by introducing a ribbon instead of the old toolbar which makes it much easier to access some so far rather hidden functions.

Furthermore a new navigation module has been introduced. It let you easily switch between the opening, training and statistic module (more modules to come in the future). Your repertoire is now represented in a different, improved way which features the repertoire explorer.
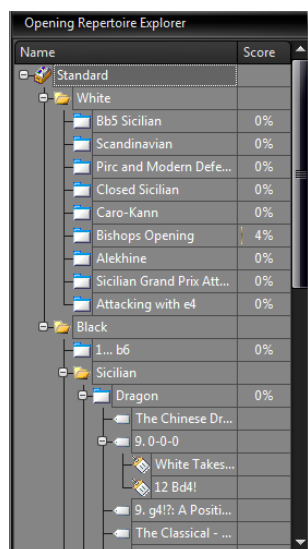
CPT 4 let you choose among many skins to adjust the overall look & feel to your liking:
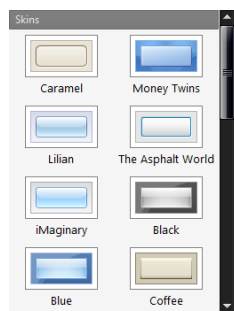
New storage system

CPT 4 is based on a completely new storage system which is scalable and aimed at users who want to create really big repertoires. Beside compatibility issues with Windows Vista and Windows 7 the old storage system got the most complaints. Now, both things are fixed!

Improved Repertoire concept

CPT introduced the concept of sub-repertoires as the first chess software to the market. It let you easily manage all your openings within one repertoire which have been usually independent databases for other chess programs (e.g. you could only open one at a time). CPT 4 is taking this to a new level.

Although it didn't look like, but in CPT 3.3 sub-repertoires were still pretty independent except that they are shown in the same repertoire which made life already easier. That means that positions were stored separately for each sub-repertoire. There was nothing like cross-opening transposition detection. Furthermore, if you had a complex opening repertoire it could be difficult to keep an overview of all sub-repertoires. At the same time some deep openings let you wish to create sub-repertoire just for certain sub-systems / variations, but they would have no hierarchical relation to their original sub-repertoire.

All this changed with CPT 4. The repertoire is now represented in an explorer style and new elements are introduced to provide a better way to organize complex openings. These new elements are folders, variations and sub-variations. The root element is always a repertoire item followed by a black and white folder under which all openings (or folders) are arranged.

Now, all positions are only stored once even if they are part of opening A and opening B. This is also true for multiple repertoires within the same database. You can even see for a give position whether any other opening contains a move which you don't cover for the current one.

New Position Explorer

This is a very powerful new way to navigate through your opening. It is a mix of a list and tree view and let you browse your opening. A smart tooltip which shows the arising position helps to quickly get an overview of deep variations without even having to navigate to it.
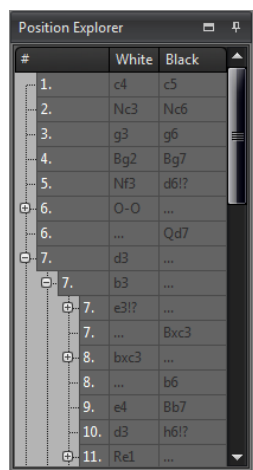
New Previous Move window

Sometimes more than one move leads to a position. The window shows you this information and you can even go backward in a different way than you did forward. Furthermore you can even switch openings by doing so as candidate moves leading to the position are shown which not parts of the current opening are.

New training methodology: space repetitions

Beside the new storage system and advanced repertoire management features this is certainly the most important change. CPT introduced the flash-card concept to chess software which already greatly improved the learning process, but it still had one drawback: it is asking you to repeat positions which you still know and thus wasting valuable time. Now, what might sound like magic, CPT 4 is going to ask you to repeat positions right before you are about to forget them. No, you don't have to connect any weird cables from your PC to your head. It's even more magic than that. This goal is achieved by applying the concept of space repetitions. More about this methodology in the The Methodology behind the Scenes *(p. 65)* section.

New Scheduler

With the new training methodology a scheduler is introduced. It will show you when you have to use the training functionality to recall positions before you are going to forget them. More about this in the *Training Module (p. 65)* section.

New training mode: photo reading

Learn your repertoire in a complete new way: unconsciously! The program will show you randomly positions of your opening for a short moment before it shows the correct candidate move and then jumps to another position. There is absolutely no interactivity from your side. The idea behind this is to learn the positions unconsciously and is derived from photo reading.

New statistic module

The new statistic module offers several useful charts about your repertoire complexity and how well you know already your openings. The scheduler shows you when you have to recall already trained positions in order to not forget them.

There are many other new features which have been added and you can find out more about in this manual or just check the tooltips for a command by hovering with your mouse over a command for example in the ribbon.

1.4   First Time Users

The program is all about your personal chess openings. Creating, managing and training them in the most efficient way have been the guidance for conceiving and developing this software.

If you want to use the program it's critical to understand the concept of **Candidate Moves** and **Position Database** which are explained next.

1.4.1   The concept of Position Database

In CPT not concrete games, but just positions and moves are saved – independent of any games. Of course, with this information it's possible to re-calculate a move order to reach a certain position, but in general the approach is very different to typical chess databases, because the goal of CPT is quite different too. So, please unlearn to think in terms of games for the opening repertoire module.

One major difference of a position database is that the program covers transpositions within the same opening or across openings (even repertoires). Especially with openings which transpose quite often you will soon appreciate this feature. Every position and move is unique in the database. The same position or move (for a certain position) is never saved twice. If you add a comment to a position or move and it is part of two openings it will be shown for both openings the same. If you edit the comment for one opening the updated comment is shown for the other opening. The same is true for position or move evaluation or training result. However, you can decide to exclude a move for a given position for an opening. For example you might play the Closed Sicilian for both sides. Then you are not forced to maintain all moves for both sides. Instead you will most likely have for the opposite color all possible replies and for your side just one. Also you can have different rankings of your candidate moves per opening.

1.4.2   The concept of Candidate Moves

In general you study some chess material and make decisions about which variations lead to middle game positions you want to reach no matter what your opponent plays. This requests some effort on your side as you have to make sure that on the way to those positions your opponent can't play let's say a drawish variation.

Now, to achieve your goal you have to decide for each position (beginning with the start position) what you want to play keeping in mind that it is supposed to be guaranteed to lead to one of your favourite variations and finally positions. Thus you have usually just one move for your side, but you have to consider several moves for your opposite side, because you can't legally force your opponent to play your preferred variation. However, by your choice you restrict the reasonable options for your opponent and this is exactly the effort you have to make: whatever he plays you have to ensure you still have one move which leads to a variation / position which you prefer to play. Wait a moment and let this sink into your brain. Re-read this paragraph as it is key to the whole opening module and CPT in general. If you have never heard about the concept of candidate moves it can be confusing at first.

All considered moves in your opening are called **Candidate Moves**. No matter whether the moves are for your or opponents side they are called candidate moves, because these are the candidates which are considered for your repertoire. You will add new candidate moves over time as you make your personal experience.

You can have several candidate moves for a position. Also you can change the order of all available candidate moves. However, for your side you will usually have just one candidate move.

Let's say you face with Black e4. You always want to play the Sicilian as the reply to e4 so the candidate move in that position is c5. All other moves, while they might be absolutely sound, are not your first candidate move. CPT won't help you to find all these single moves, but it will help you to organize and to train them in a very efficient way.

The candidate move concept is very important in CPT. Many other concepts are based on this basic concept.

Of course, sometimes there exist two candidate moves which you would like to play and especially the stronger you are the more likely it is that you have more than one line which you can play for the most popular variations just to make it harder for your opponent to prepare a game against you, but even then it's quite easy with CPT to manage the repertoire. You can have more than one candidate move and later change the order of your candidate moves. However, only the first ranked move will be considered for several functions which CPT offers like the training mode. Keep this in mind!

A short list of functions which are based on the first ranked candidate move:

- Training mode: you have to play your first ranked candidate move or the program will count it as an incorrect answer unless you changed the training settings (s. *Correct Move p. 72*).

- When you run your played games against your repertoire to find any novelties CPT will check where you didn't play your first ranked candidate move for the first time (s. *Run Against Games p. 61*).

- Updating your repertoire based on your played games works similar (s. *Run Against Games p. 61*).

1.5   Previous users of Chess Position Trainer 3.3

If you have used a previous version of CPT the new version will be familiar to you in many aspects. The following brief overview helps you to make the switch even smoother.

1.5.1 Enhanced Repertoire Concept

In previous CPT version you could already create sub-repertoires for a repertoire / database. These are called "Openings" in CPT 4. The repertoire concept has been improved by introducing folders, variations and sub-variations. Additionally there are fix folders called "Black" and "White". Every repertoire item (e.g. opening) belongs to a Black or White folder. This additional layer helps to organize your repertoire. You can create additional folders for complex opening systems like the Sicilian where you might want to create several openings for all main and Anti-Sicilian systems. Furthermore a database can handle several repertoires. No need to create one database for blitz games and then another one for your serious chess games. You can keep it all in one database.

One of the most important improvements is the new approach to store all positions of all openings only once across all openings and repertoires. Thus the program will spot transpositions even between openings. In CPT 3.3 each sub-repertoire was treated as an independent database. The unified approach offers several other advantages for statistics and training.

1.5.2 Training

The biggest change has been done to the training methodology of CPT. Though it might sound rather subtle at first, in practice you will quickly notice the difference.

First of all the training module has been completely separated from the edit module emphasizing the importance, but also to make it user-friendly (especially for new users). There are quite a few new training options too. While the training wizard has been removed, training modes have been introduced instead which is another major change. They set the overall characteristic of your training session. These modes can be divided into modes to learn new positions and recalling already learned positions.

This brings us to the most significant change of CPT 4 in comparison to CPT 3.3. In the past there was no difference between learning new positions and already trained positions. The program would always start with positions which were never trained before. Only when no new position existed it would let you recall learned positions and this based on the last training date.

Although the innovative training module of CPT was for most users probably the reason to use the program it had some flaws. You have to recall positions in time or you will forget them. If you have to train all new positions first as it was the case in CPT 3.3 it is very likely that you have forgotten your learned positions already before you are trained in them again. Then, if you treat all positions in the same way just by considering the last

training date you are recalling some positions too early and others too late. Although a training score was already calculated and used, the impact was not perfect.

In CPT 3.3 each position had a training score between 0 and 100 percent. You had to play the correct candidate move for ten times to achieve 100 percent (thus 30% or 70% were possible scores). CPT 4 knows only three states for a position: learned, (probably) forgotten, not trained yet

In CPT 4, you can decide to learn new positions by choosing one of these training modes (e.g. "Complete Line" or "Filter") or recall learned positions. This solves the general issue of having to train all new positions first. A space repetition concept makes sure you focus on the right positions and recall positions more efficiently. The program takes care of this in the background and shows you in a calendar overview when you have to recall scheduled positions. More about this in the *Training Module (p. 65)* section.

Finally one specific new training option is worth to be highlighted. You can combine the "complete line" mode with the option "first new positions". This can be described as the best of the "filter" and the "complete line" mode. New positions can be learned in a connected way, but similar to the filter mode you don't play complete lines. Give it a try, it is a very efficient way to learn new openings.

1.5.3 Tactic and Middle Games

In CPT 4 you can only manage openings at the moment. Therefore neither can you import PGN files which don't begin with the start position nor can you setup positions. Future version will support again positions which can't be reached by any move order from the start position.

1.5.4 Converting your old CPT 3.3 Repertoire Database to CPT 4

There is a special import function for old CPT 3.3 repertoires. First of all you have to create a new CPT 4 database. Then you can use the import function which you can find in the "repertoire element" ribbon section or in the context menu if you right-click on a folder or opening.
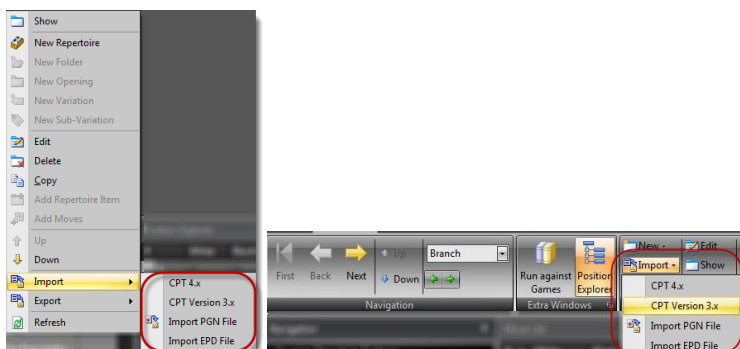
Choose "CPT Version 3.x" as import format. In the file dialog box browse to your current CPT 3.3 repertoire and select it. The program will show you all available sub-repertoires. Then you have to check all sub-repertoires which you want to import. The program will import each sub-repertoire as an opening element in CPT. You can either just select all sub-repertoires for white or black and then import them into the corresponding folder or import them all under let's say white and then drag & drop them to the black folder afterwards (depending on how many sub-repertoires you have one of both ways is more efficient).

During the import the program will automatically ensure that no positions or moves are imported twice. Thus you will immediately benefit from the universal database approach of CPT 4 where no position is stored twice even if they belong to two different openings.

Training scores are not imported as the concept of training scores significantly changed.

2 Common Tasks

The following sections will help you to get quickly an overview about the program and how to use it. The most common tasks are explained with concrete examples which make it easy to follow.

It is strongly recommended to at least browse through this walkthrough if you are new to Chess Position Trainer. The program is a quite complex chess tool which offers you many features which might be overwhelming at first. If you never used similar software for your repertoire management you might get even confused that there are no games at all actually, but don't be afraid, you will soon understand how CPT works and how much it will help you to save time while training your chess material.

You will also understand why CPT does not teach you anything on its own, but needs your help to team-up. Many people are looking for shortcuts in their life. Usually they look sweet at first sight, but come with some drawback in the long run. CPT does not promise to be a shortcut. If you work with CPT you will obtain a very powerful tool which can give you a competitive advantage, but it doesn't come for free or any effort on your side.

Take your time to go through this tutorial and get a good overview of Chess Position Trainer and its features in action!

Please also check available online videos with additional tutorials.

2.1 Create your first Repertoire

Before you can create your own repertoire you have to create a database first. This is done by clicking on the application icon to the top left corner and then choosing the *New* command.
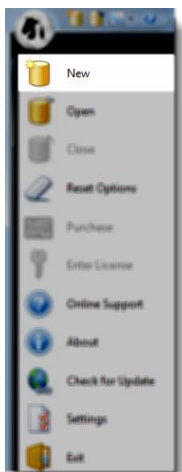
Next provide a name for the database. Afterwards the program will automatically create a repertoire and an empty dummy opening for White.

You can see a White and Black folder which you can't delete. All openings are added to either folder.
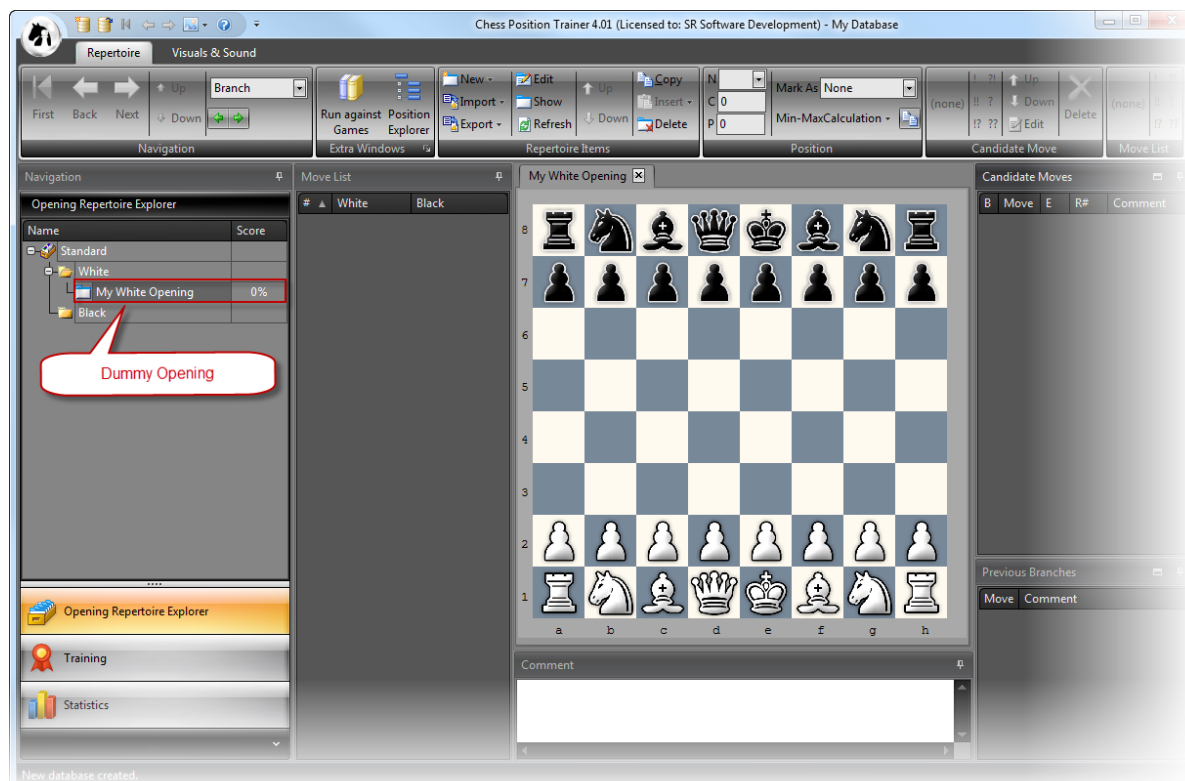
You can rename the dummy opening "My White Opening" by either right-clicking on the entry and selecting *Edit* or by using the *Edit* command from the ribbon page "Repertoire Items". Rename it to "Close Sicilian".
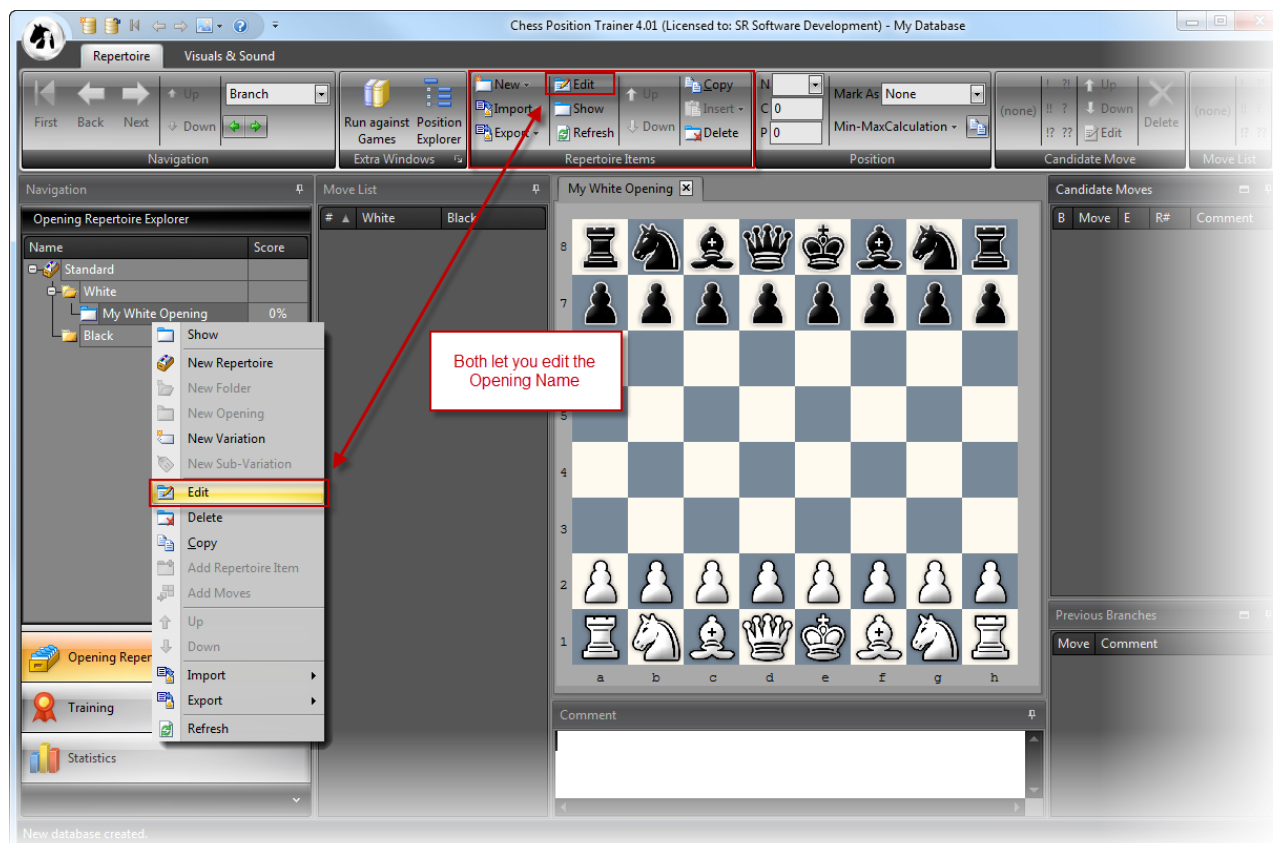
If you want to add new openings just right-click on an folder and select *New Opening* or use the *New* command of the ribbon page "Repertoire Items".
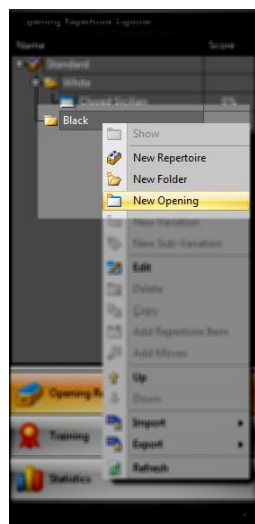
2.2   Add moves to your Repertoire

A repertoire consists of candidate moves and positions. The program stores no concrete games. Instead it stores for each positions candidate moves which you want to cover by your repertoire (it's up to you to decide which ones these are). All candidate moves of a position are shown in the "Candidate Move List" window.

There are two ways to populate your repertoire. You can either import positions and moves from other sources (e.g. PGN file or old CPT 3.x database) or you manually add moves.

If the just created opening "Closed Sicilian" is not open please double-click on it now in the "Opening Repertoire Explorer". Then add manually the moves 1. e4 e5, 2. Nc3 by dragging and dropping the pieces of the chessboard.

The arising position defines the "Closed Sicilian". Now we want to cover all potential moves of Black as we can't force Black to play our favorite variations. We have to cover all options and then define our reply (usually just one). In this case we want to cover Nc6, a6, d6 and e6 as the most likely replies by black.
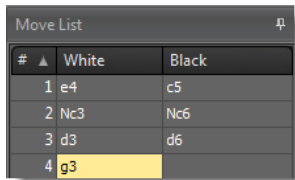
Enter Nc6 and then go back to the previous position to add the other moves by either using the **Back** button or by using the keyboard shortcut left arrow.

The arrows are the most helpful keyboard shortcuts of the program. If you use the left or right arrow you can quickly navigate through your opening by the currently selected candidate move. The up and down arrows help you to change the selected candidate move of the "Candidate Move List" window. Finally the shift button helps you to jump to the next or previous branch (depending on your selection for the position type in the "Navigation" ribbon page). These shortcuts are particular useful if you want to systematically navigate through your opening.

Your chessboard should look similar to the screenshot. The green arrows indicate which candidate moves exist for the current position. That doesn't mean all other potential replies are incorrect, but only these candidate moves are considered for training later.

Now, add after the Black candidate move 2. Nc6 the move order 3. d3 d6, 4. g3.
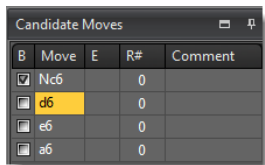
Then go back to the Closed Sicilian starting position by pressing SHIFT+Left Arrow (or the green back button of the "Navigation" ribbon page).
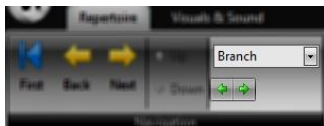
This time select the candidate move d6 (by double-clicking on it in the candidate move window) and add 3. d3 Nc6.

Now you might have noticed it: all of a sudden a candidate move exists for this position already!
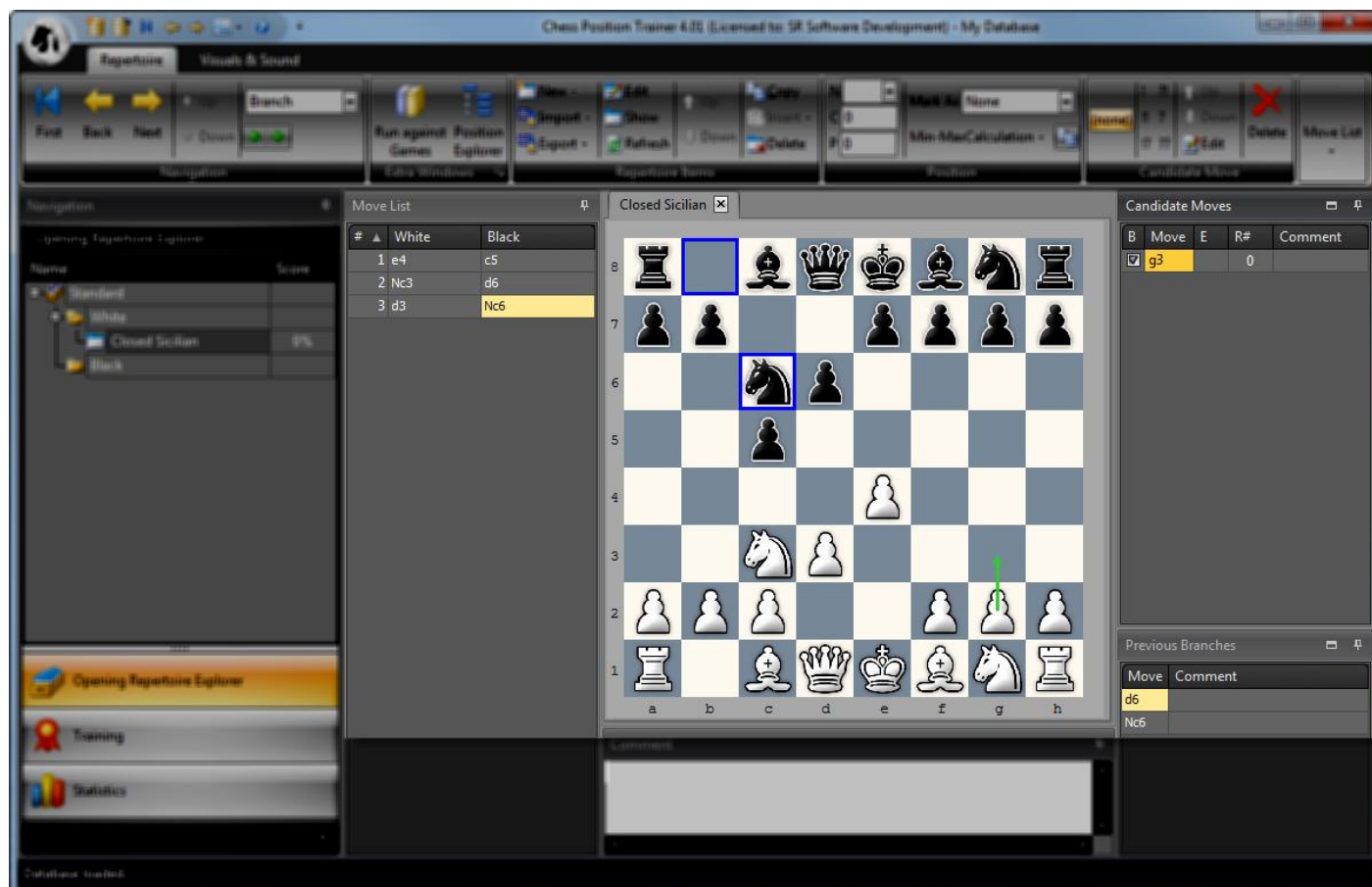
There are a few things to note. You reached the same position via a different move order. As the program stores each position only once it automatically detects transposition. That's why your previously entered candidate move g3 is shown. If you look at the "Previous Branch" window you can also see that two different candidate moves lead to this position which is a sure sign that you reached a transposition.

2.3   Train your Repertoire

If you click on the "Training" item in the left navigation you get to the training module which is the heart of the program and let you train your personal repertoire.
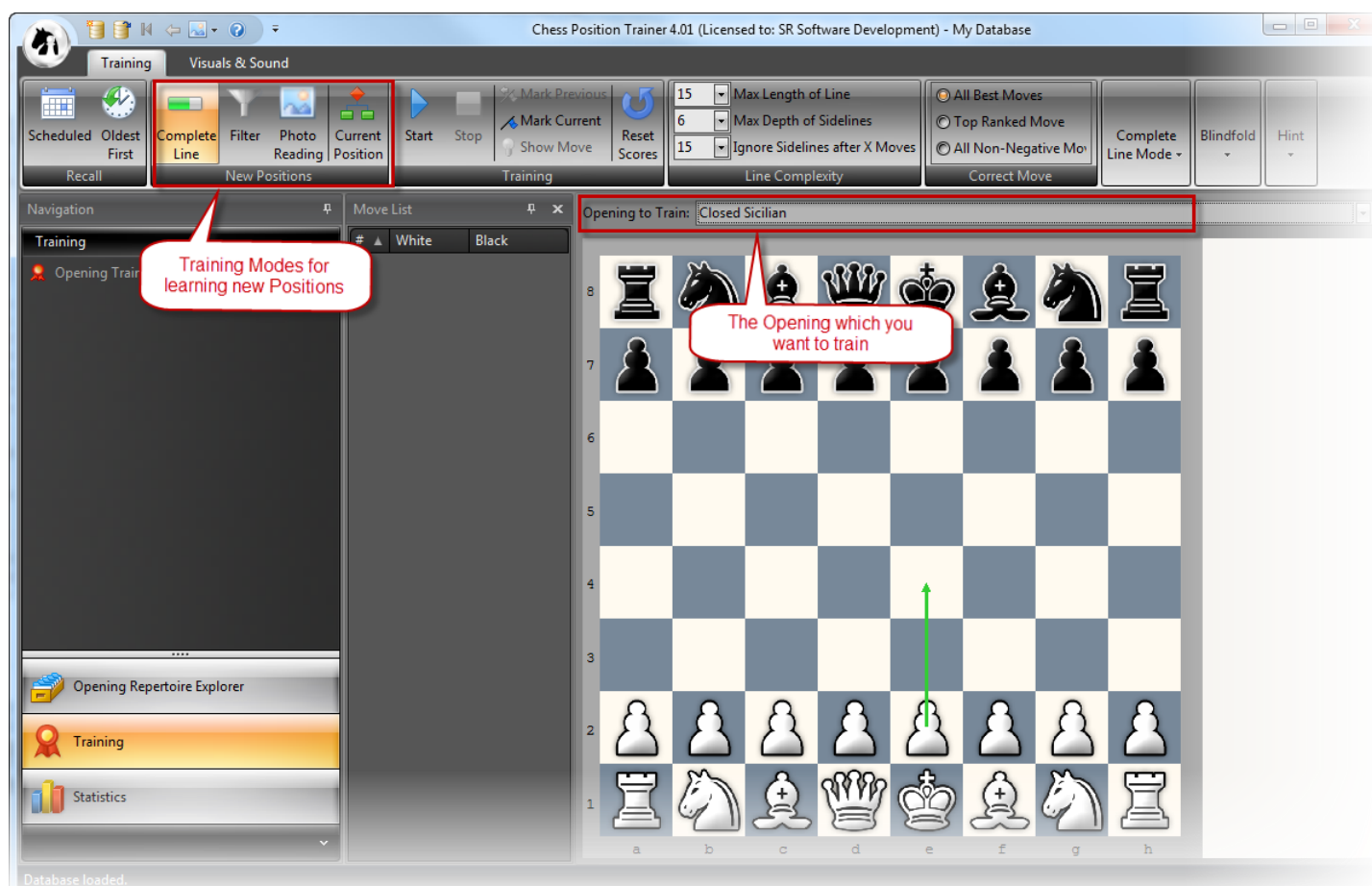
The training module has many options which let you customize your training environment. The most important ones are the different training modes which let you either recall already trained positions or learn new positions. First select the opening which you want to train if it is not selected by default. At the moment we want to learn our just entered candidate moves of the "Closed Sicilian" opening. Please select the "Complete Line" mode.

The "Complete Line" mode will train you in a more connected way in the meaning that you always begin with the start position and then play a complete line like a game. There are other modes which let you start with the position which the program identified for training. The advantage is that you are not playing the same positions again and again, but focus on the training positions. Also you avoid to memorize concrete move orders instead of recognizing positions. The disadvantage is that these positions are not connected and thus it doesn't feel like playing a game. For some players new openings are easier to learn if they complete lines as they get quicker familiar with it. At the end it is a matter of taste and it is good to know that you have the choice.

If you click on the "Complete Line Mode ribbon page (in case it is not expanded) you can choose to let the program demo the line first before you have to play it. There is another useful function to always start with first new positions which let you play to some degree complete lines, but with the advantage that already trained positions are skipped.

Now, click on the *Start* button to start the training session. You are asked to play a move. Please play e4 now.
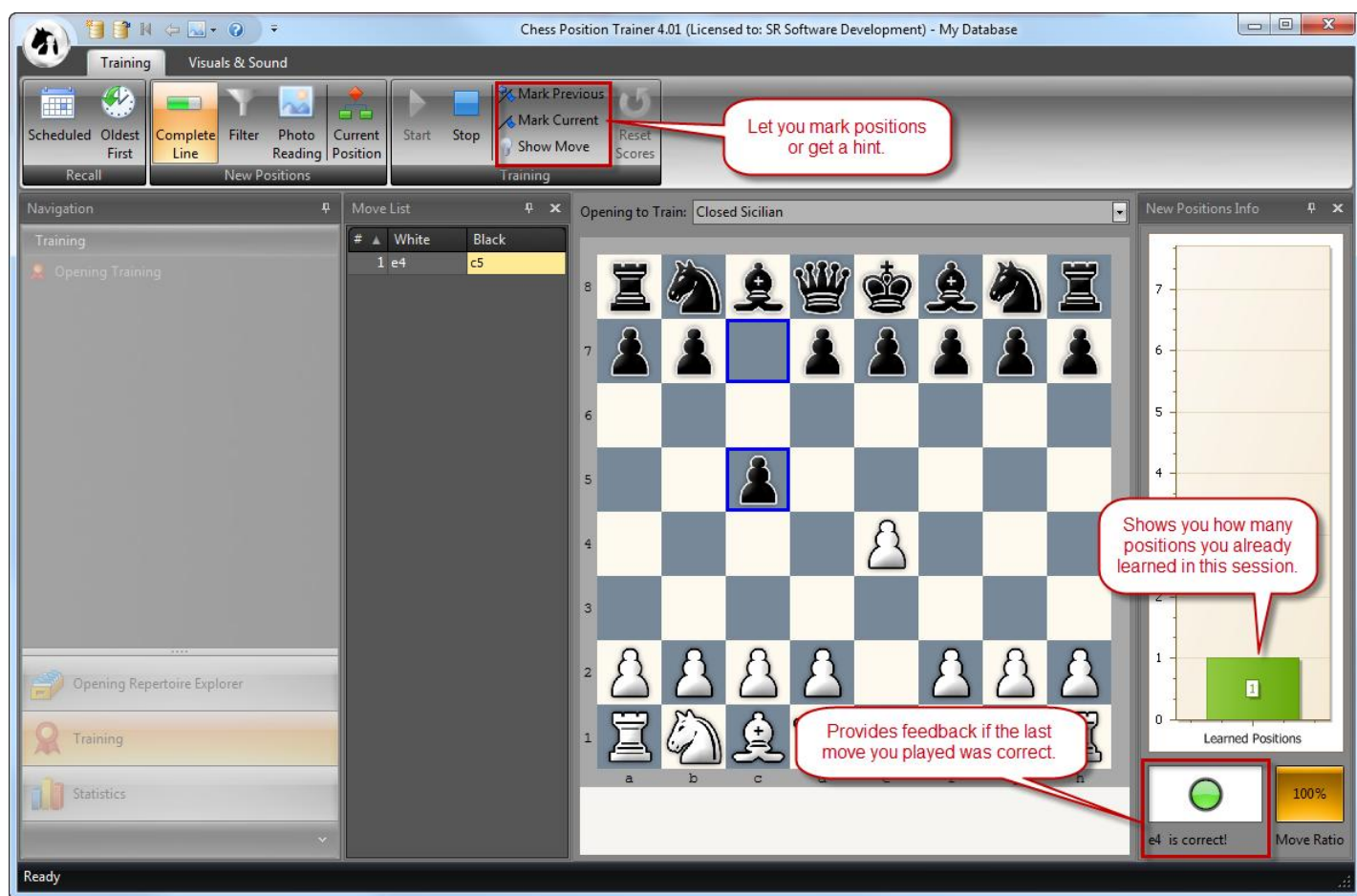
The program indicates that the move you played (e4) was correct by a green light. Furthermore the "Learned Positions" bar has been increase by one.

In the ribbon you can see some commands to mark a position which you can later lookup in the opening module after you've finished your training session. Also, if you have absolutely no clue which is the right candidate move you can use the *Show Move* command although the position will be then considered as not learned.

During the training session the program will continue to test you in positions of your opening. If you didn't play the correct candidate move, which you have defined in the opening module, you will have to repeat the position. By default the program will accept for your side only the first ranked candidate move. With each failed attempt you will get a better hint from the program to find the right candidate move. If you still don't play the right move the program will show you the right one and then moves on to the next position. You will be trained in the position later again.

The program will systematically go through your complete opening and play every candidate move which you defined for the opposite color (in our example this means it will play 2… Nc6 and 2… d6 (but not the other

replies by Black as no White move has been defined yet). This way you don't miss to train any position of your opening. Of course this is only true in respect to all candidate moves your opening contains. It is up to you to ensure you cover all important candidate moves for your opponent (and the variation depth).

Once you have trained your opening and no further positions are available you have to use one of the two recall modes. Newly learned positions are scheduled for the next day. That means you can't train these positions by using the "Scheduled" training mode unless they are scheduled.

If you want to check when your next positions are scheduled go to the "Statistic" module and click on "Opening Training Schedule".
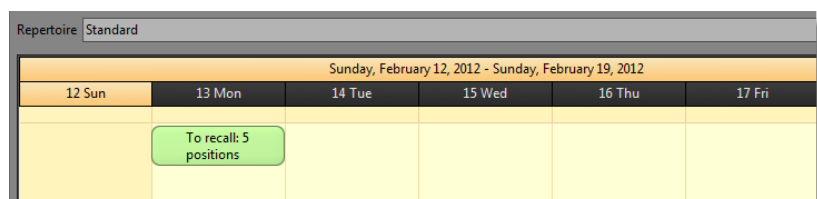
Please check the *5.1 The Methodology behind the Scenes* section for further details about the training methodology of Chess Position Trainer.

After each training session your training scores of the respective openings are updated to reflect your current knowledge of the opening. If you go to the opening module you can see in the "Opening Repertoire Explorer" that your score of the "Closed Sicilian" is now 100%
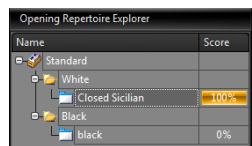
Another way to check your opening knowledge is to go to the "Statistic" module and then selecting the "Opening Knowledge" statistic.

2.4   Learn from your played Games

It's good to see where something went wrong, but it would be even better if you could use this information similar to the training mode to update your training scores. You probably guessed it already: CPT can do that too!

Probably you play on the internet at some chess servers or you just play over the board games. Did you ever wanted to know with one click where you or your opponent didn't play what you actually prepared? With CPT this becomes a very simple task.

First let's load the example database which comes with CPT 4 and is located in your local document folder under Chess Position Trainer. Click on the application menu button again and choose *Open*.
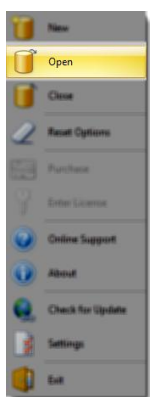
Browse to the folder where you can find the "ExampleDatabase.cpt" database. It contains one opening for White which is just by chance the "Closed Sicilian". However, this one is actually quite complete.

Go to the opening module and then click on the "Run Against Repertoire" button of the ribbon page "Extra Windows".

This will show you a dialog box where you have to provide a PGN file which contains your played games. In the same folder as the example database is located you can find a PGN file with the name "Amarok.pgn". Browse for this file as the "watch file".

The image has been blocked
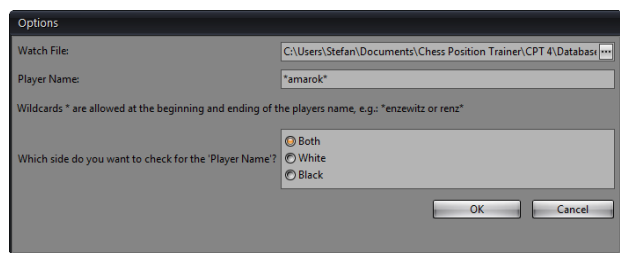
Next you have to provide a player name. Please enter *amarok* (if you run your own games against your repertoire you should provide your name here). Finally tell the program to check both sides for the player name.

If you click on *OK* your screen should look similar to the following screenshot:
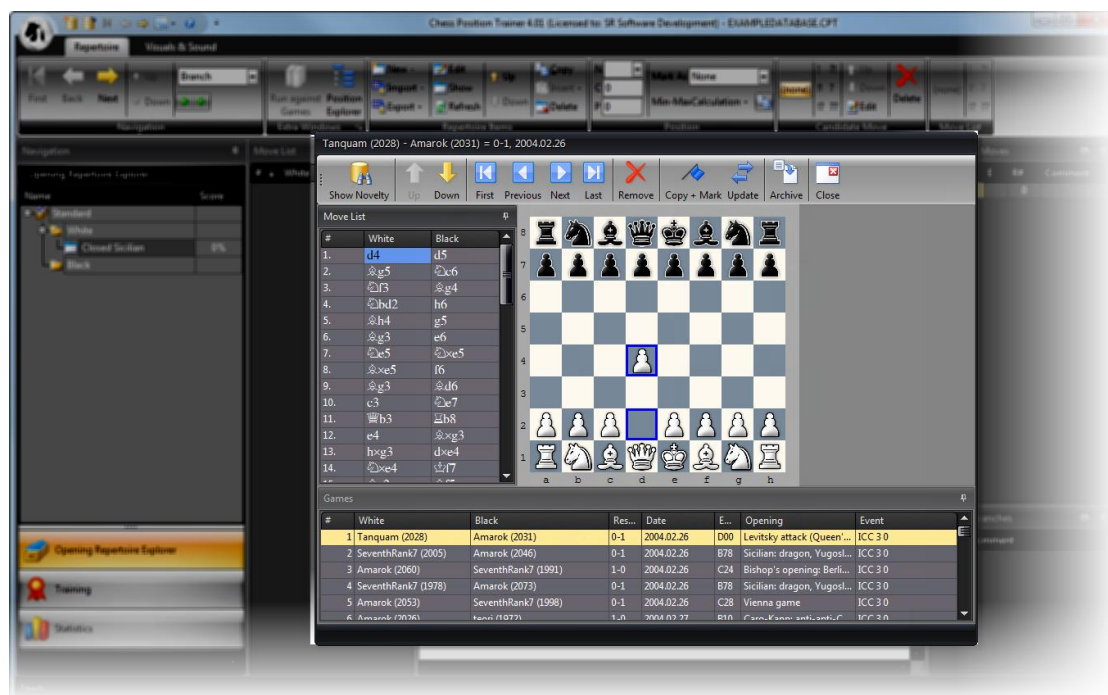
The program parsed the complete PGN file for all matching games. That means White or Black has a name which matches *amarok*. At the bottom you can see all games. If you click on any game the chessboard will automatically show you the position where you or your opponent played the first "novelty". That means the move is not covered by any opening of your repertoire. In our case the repertoire contains only one opening, but this function works even with dozens of openings. The program will detect the corresponding opening which fits best to the game and then show the novelty.

As the first game begins with 1. d4 we immediately have a novelty as our repertoire only covers 1. e4 for the "Closed Sicilian". Now, go to game 10# (Amarok – ScirinKreeng) and double click the game. You will see that the novelty for this game is 3… e6.

Activate the main window again. It should look like this:
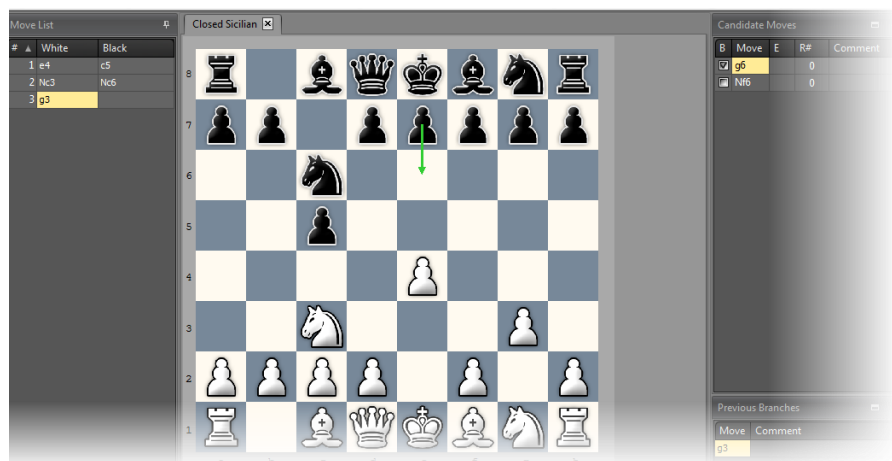
What happened? The program shows in the main window automatically the corresponding opening and then highlights the squares of the played novelty. Again, this is more amazing once you have a complex repertoire with many openings. You can see that you only cover g6 and Nf6 for this position. Now, you can add the move to your opening by playing it manually or you switch back to the "Run Against Repertoire" window where you can see the "Copy+Mark" command at the top.

This will copy the novelty to your opening and mark it as "Novelity" which makes it easy to lookup later.

Update Training Scores

If you use the *Update* command the program will update the training scores of your openings. CPT will automatically find out for every game where you didn't play your candidate move for a specific position and it does even more: It automatically figures out to which opening the game belongs and the position in question. Thus it makes the whole process a piece of cake. You can use this feature to train not only by using the training module, but also by playing games on chess servers.

3   General

3.1   Ribbon, Application Menu, Quick Access Toolbar and Tooltips

Chess Position Trainer uses a ribbon instead of a classical toolbar. It is important to have a basic understanding how a ribbon works.
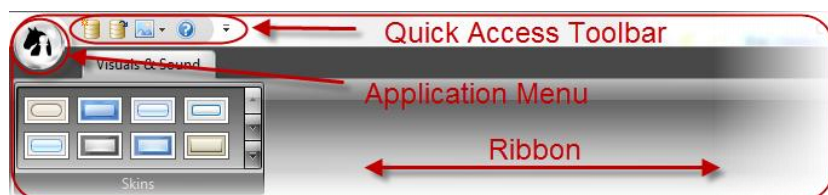
The ribbon takes up the top space of the application. If no database is loaded only the ribbon page "Visuals & Sound" is shown. Once you load a database more pages are shown. Depending on the module (e.g. opening or training) the pages will be different.

At the very top you can find the quick access toolbar. You can add any command from the ribbon to the quick access toolbar. Just right-click on the command and choose the corresponding item. The quick access toolbar let arrange your most frequently used commands in a ways which gives you... quick access.

The application menu can be reached by clicking on the application icon to the top left corner. A menu is shown with some basic functions like creating a new database or loading one. A list of recent documents is shown too:
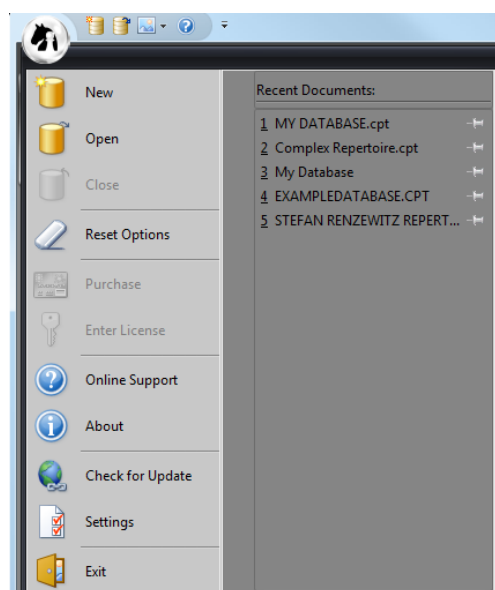
The program provides useful tooltips for almost all items of the ribbon. Some of them are very comprehensive and make it easier to get the help right there when you need it.
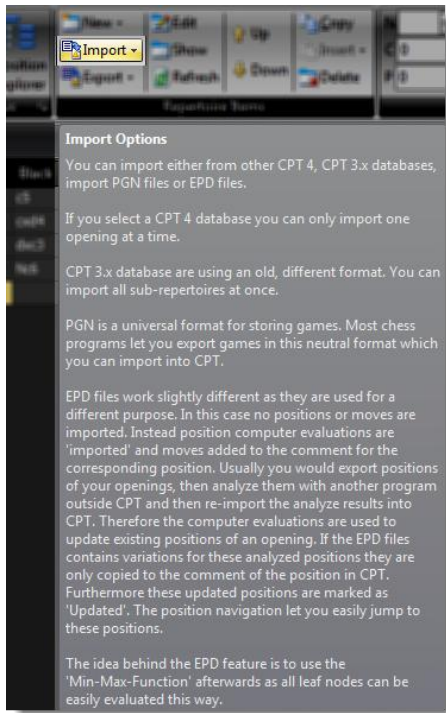
E.g. if you move with your mouse over **Import** a comprehensive tooltip is shown explaining all type of imports.

3.2 Arranging Windows

You have great freedom to arrange the windows of the program to your preferences. Most notable you can drag & drop any window by clicking on the window title, keeping your left mouse button pressed, moving it to the desired place and release the mouse button.
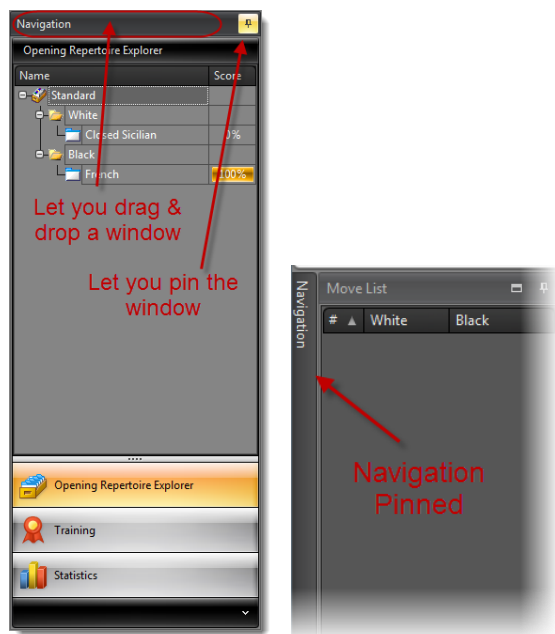
Another helpful function is to pin a window to the left or right of the application window. Just click on the symbol to pin it.

3.3 Database Management

Before you can create any repertoire or opening you have to create a database first (you can find the command in the application menu or quick access toolbar). The program uses a professional database system which contains all your repertoires. That means you are not creating one database for each repertoire or even opening. Instead a single database can contain - from a practical point of view - unlimited repertoires and openings (there are some limits, but you are not likely to reach it ever).

Using a professional storage system is not the only action taken to avoid any data loss. Additional a backup-system is provided to make a daily, weekly or monthly backup. You can find it under the application menu item "Settings". You will be also asked by the program at the beginning if you want to activate the backup-system and choose a folder for your backups.

3.4   Setting up the Program Environment

3.4.1   Visuals & Sound

There are many options to change the look & feel of the program, but also the sounds the program plays.

3.4.2   Skins

The program supports several different skins which change the overall look & feel of the program. There are even some season specific skins like the "Xmas 2008 Blue". After selecting a different skin you might want to adjust the square colors of the board to match the colors of the skin.
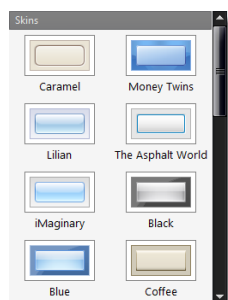
3.4.3   Adjusting chessboard orientation & colors

Changing Chessboard Colors

You can change the colors for White, Black and the border of the chessboard. Just pick a different color and you can immediately see the result. All changes will be stored for future sessions.

Adjusting Candidate Moves Highlighting

There are several options to adjust the color coding for candidate moves. The **Highlighting** button let you choose which candidate moves you want to highlight, if at all.
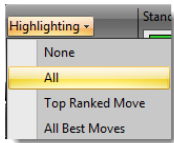
Then you can decide if you would like to use special color coding based on the move evaluation by checking or un-checking the respective checkbox.

Next you can see several colors for different purposes. Below each color you can see a number which indicates how big the arrow should be drawn. Change the value to increase or decrease the width.

Adjusting Last Move Highlighting

You can decide to highlight the last move or not and by which color. The number below the color indicates the width of the drawn square.

3.4.4   Sounds

There are several sounds available which the program can play when you make a move or capture a piece. Additional sounds can be used for the training as the "Training Specials" (adds some fun), "Correct Move" (played when your reply was correct) or "Wrong Move" (played if your move was wrong).
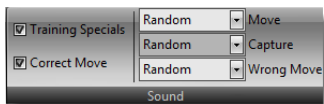
3.5   Miscellaneous

3.5.1   Backup System

Chess Position Trainer takes the security of your repertoire as one of the most important duty. Therefore a backup-system has been implemented which makes a copy of your databases whenever they are opened on a daily, weekly and monthly base. However, you have to activate it! The program will ask you if you want to activate it when you load a database for the first time. Under "Settings" you can also check your backup-system settings.

Once activated it should minimize any risk to lose your effort. However, loss of power is not the only fatal error type which is out of the scope of the program (although the backup-system should minimize the pain in most

cases). As long as you have only copies on one hard-disk you are still in risk to lose your complete work if the hard-disk has a failure all of a sudden. Making a copy of your repertoire database from time to time on another storage system (e.g. USB stick or home server) is recommended.

3.5.2 DGT Support

If you own a DGT board you can use it for training or entering new moves. Just activate it by clicking on the DGT board icon on the "Visual & Sound" ribbon page. The DGT board is best used in combination with a digital chess clock as the clock will show which pieces are not placed to the correct squares.

3.5.3 Reset Options

You can find this function under the application menu button. It will reset all options including layouts. In order to not store the current layout immediately again you should close the current database and then use this function to reset the layout.

3.5.4 Settings

You can find the settings under the application menu. You can activate the backup-system here, change the folder or language of the program. If you change the latter you will be asked to restart the program to let the change take effect.
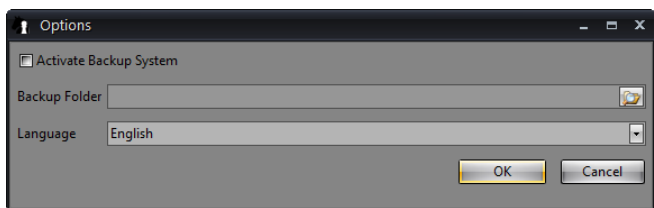
4 Opening Module

The Opening Module is the one which will always been selected by default if you start the program. This mode is best if you want to browser your repertoire, edit it or import PGN files or other CPT database or export parts of your repertoire.

4.1 User Interface Overview

Please take some time to get familiar with the main screen and the different windows (which you can arrange as you like by drag and drop them).

At the top you can see the repertoire ribbon page which is automatically activated once you clicked on the opening repertoire module. The ribbon offers many commands which can be used to navigate through your opening repertoire and edit it. The "Repertoire Explorer" shows all repertoire elements like repertoires, folders, openings and variations. It allows you to represent your repertoire in an organized and natural way. In the center you can see the chessboard and the currently loaded opening. All other windows depend on which opening is loaded. The "Candidate Move List" shows you all candidate moves which exist for the current position. You can also navigate through your opening by double-clicking on a candidate move. The "Previous Branches" window

works the opposite way. If you double-click an entry you will navigate backward. The "Move List" records your navigation through your opening. Whenever you move forward by a candidate move it is added to the move list. The "Position Comment" shows the comment for the current position if any exist. Finally the "Position Explorer" is a quite powerful alternative way to navigate through your opening.

Opening Ribbon
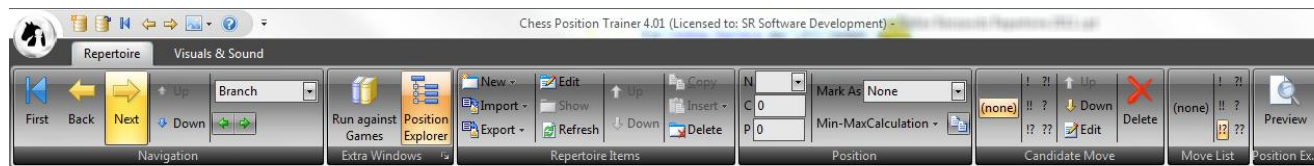
The *Navigation* group has some special commands to navigate through an opening. The *Miscellaneous Position Operations (p. 59)* group also does not exactly match one of the windows. They are explained in their respective sections.

To the left you can see a navigation pane which includes the *Opening Repertoire Explorer* which let you edit your repertoire and show openings.

Opening Tabs

In the middle you can see a chessboard if any opening has been shown. Above the chessboard you can see the name of the currently loaded openings. If you double-click on an opening in the Opening Explorer or you use the "Show" command the opening will be loaded and added to the tab. All other windows depend on the currently shown opening (e.g. the *Move List*).

4.2 Navigation

There are several options to navigate through your openings. You can use the *Move List, Candidate Move List, Previous Move List* or *Position Explorer*. They are all explained in detail in the corresponding section.

There exist another comfortable way to browse through your repertoire:

The **First** button brings you back to the start position. The **Back** and **Next** buttons let you move one ply forward or backward depending on the selected move in the *Candidate Move List* (forward) or *Previous Move List* (backward) and whether one candidate move exists or not. The **Up** and **Down** buttons let you select a candidate move up or down in the *Candidate Move List* (if exist).

A very efficient way to navigate through your repertoire is the one to the right. In the example "Branch" is selected. The green arrows let you navigate backward and forward depending on your selection in the dropdown list above:
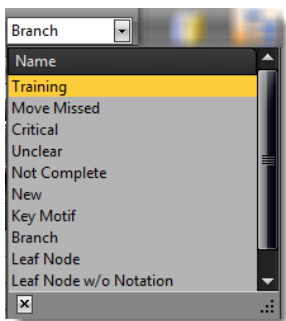
Each type is intended for a different purpose. The most commonly used is "Branch". This will let you navigate to the next position where more than one candidate move exists.

> **TIP: It is recommended to learn the keyboard shortcuts for navigation as they make it very easy to browse through your opening. You can use the left and right arrow on your keyboard to move a ply forward and backward. If you press the shift key and then the left or right arrow you will navigate to the next / previous positions accordingly to your selection in the dropdown list.**

Please play around with these shortcuts for a moment to get a feeling for it (select "Branch" for this purpose). You will hardly live without these shortcuts anymore if you want to efficiently browser your opening.

Let's have a look at the other items in the list:

- Training: You can mark positions during the training. This is the option to browse through them.

- Move Missed: Positions are marked as "Move Missed" if you run games against your repertoire and you didn't play your candidate move (s. *Run Against Games p. 61*).

- Unclear: Can be manually set as position label (s. *Mark Positions with Labels p. 60*).

- Not Complete: see above

- Key Motif: see above

- New: see above

- Leaf node: Navigates to positions which have no further candidate moves.

- Leaf node w/o Notation: Same as above, but only if the position has not assessment yet. This is useful in the context of the *Min-Max-Calculation (p. 60)*.

- Updated: Automatically set if you update your openings based on games you played in the "Run Against your Repertoire" module.

- Novelty: Automatically set if you add a novelty from the "Run Against your Repertoire" module.

4.3 Windows

In the following sections each window will be explained in detail. Every window has corresponding commands in the ribbon which will be explained in the window section as well.

4.3.1 Opening Repertoire Explorer

The Opening Repertoire Explorer offers you several elements to organize your opening repertoire. You have 5 different elements to choose from which let you create a structure which makes even complex repertoires and openings easy to maintain.
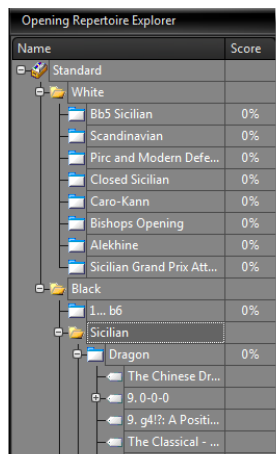
The **Score** column shows you how well you know the opening. You can improve the score by selecting the opening for training. If you don't follow timely the recommendations of the training scheduler to recall positions which you have already learned they will be considered as forgotten and thus decrease your score over time again.

The Opening Repertoire Explorer offers several functions which will be explained in the following section.

Beside the ribbon you can access these commands also by right-clicking on one of the nodes which will invoke a context menu:
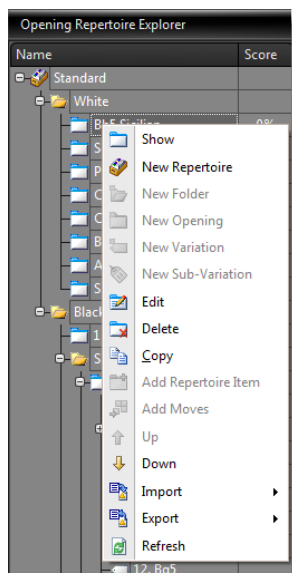
4.3.1.1 Creating new Items

Depending on which node has the focus you can create a new repertoire, folder, opening, variation or sub-variation:
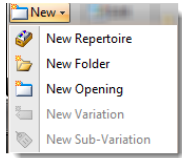
4.3.1.1.1 Repertoire

You can always create a new repertoire no matter which node is selected. A repertoire is always added to the root level of the Opening Repertoire Explorer. When you create a new repertoire a Black and a White folder is added automatically right below the repertoire item. You can't delete one of these folders. You have to delete the whole repertoire to delete these folders.

A repertoire can contain as many openings as you like. Most players probably won't need to create more than one repertoire. However, you might have a special repertoire for blitz games. Another scenario could be to create a repertoire of a famous player who plays your preferred openings. This will make it easier for you to compare your repertoire with the one of that other player, because in your repertoire the candidate moves of other repertoires are also shown (marked as not belonging to the current repertoire).

4.3.1.1.2 Folder

You can add folders only to folders. A folder can host as many openings as you like. It is possible to create several levels of folders without any restriction.

4.3.1.1.3 Opening

An opening can only be added to a folder. This can be one of the two standard folders for Black and White or self-created ones. An opening can host as many variations as you like.

Openings are the heart of your repertoire. They are the only element which actually can contain positions and moves. You can import new positions and moves into an opening, manually add or delete moves and finally train them. Furthermore openings have a training score which reflects how well you know them.

4.3.1.1.4 Variation

A variation can only be added to an opening and works similar to a bookmark. Variation help to further organize your openings. If you want to add a variation you have to show the opening first. Then navigate to the posi-

tion where you would like to create a variation. Now you can create the variation. It will be automatically added to the current opening. The variation will be defined by the current move list. You can't change it later.

Variations don't contain any unique moves or positions and depend on their parent opening. If you delete the corresponding opening the variation is deleted too. On the other hand, if you delete the variation it has no impact on the parent opening. A variation has no training score either, because it doesn't own any positions.

You can add as many sub-variations to a variation as you like. You can move a variation under another variation as long as they share the same parent opening. In this case the variation will change into a sub-variation.

If you show a variation the parent opening is shown and the move list is update with the move list of the variation. Thus, variations provide you a way to easily access key positions. Some openings are rather complex and have some sub-systems. Variations and sub-variations will help you to make them still easy to maintain.

4.3.1.1.5 Sub-Variation

A sub-variation works like a variation except that they are added to a variation and they can't host any further repertoire element. They are always a leaf node in the tree. However, you can move them directly under the parent opening and change it this way into a variation. A sub-variation can't be moved to another opening than the parent opening, similar to a variation.

4.3.1.2 Import

You can add new moves to your opening manually or by using one of the different import functions. One thing which they all have in common: only new positions and moves are imported. If your source has positions which already exist in your database they will be skipped, so never worry about this.
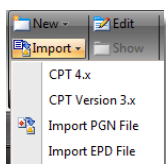
4.3.1.2.1 CPT 4.x database
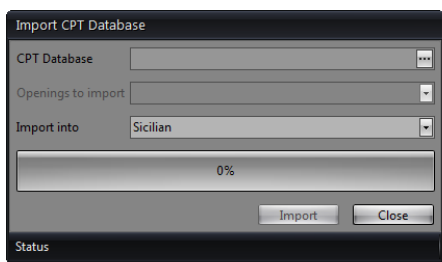
First browse for the source database from which you want to import an opening. You can only import one opening at a time. Select a folder or opening into which you want to import the source opening. If you select a folder a new opening will be created into which the positions of the source opening will be imported. Otherwise the positions and moves of the source opening will be directly imported into the target opening. Of course, the program takes care that only new positions and moves are imported.

4.3.1.2.2 CPT 3.x database
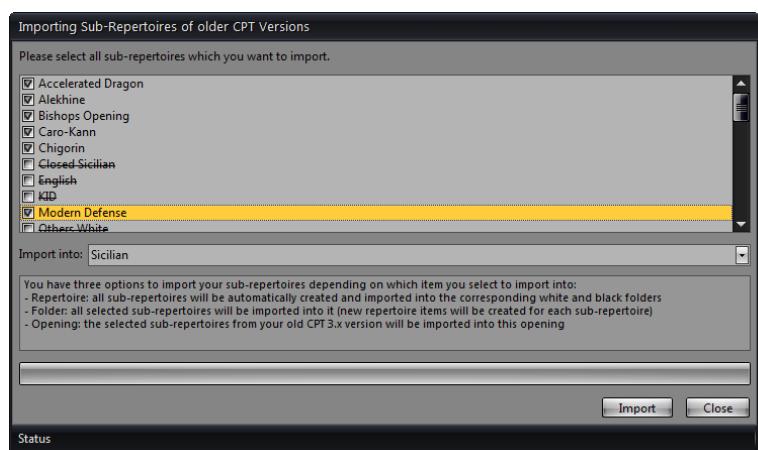
You can import old CPT 3.x repertoires. All comments, position and move evaluations are imported. If you select a repertoire as target item instead of an opening or folder all sub-repertoires of your old CPT database are selected and if you start the import they will be automatically added to either the Black or White folder of the selected repertoire (by creating new openings). This is the fastest way to import your old CPT 3.x repertoires. Of course you can just import a specific opening into a folder or existing opening.

4.3.1.2.3 PGN File
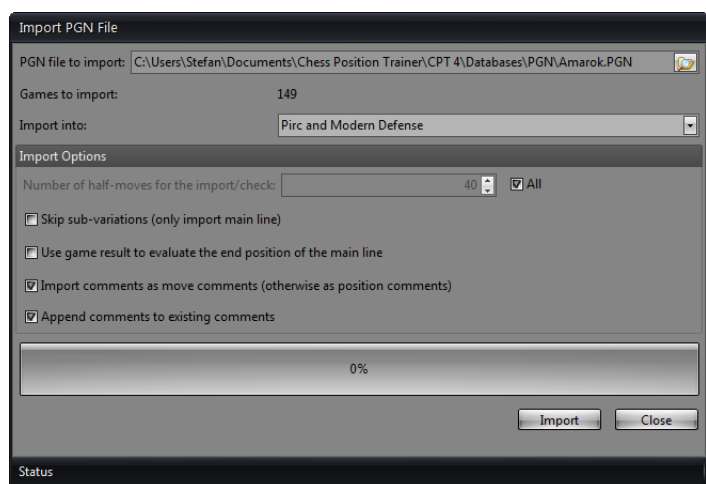
First choose a PGN file which you want to import. Next select the target opening into which you want to import the PGN file. You have several options at your disposal to influence the import.

4.3.1.2.4 EPD File
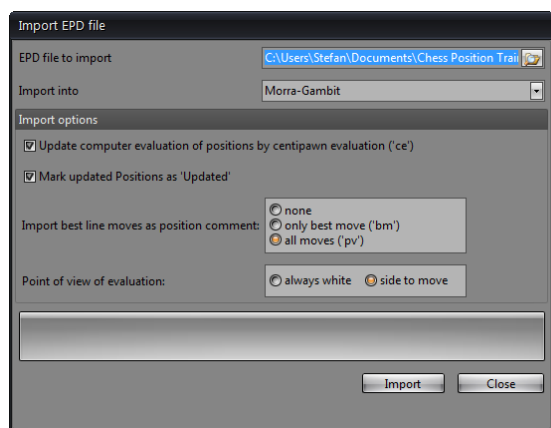
This import function does not really import positions or moves like the others. The idea behind this import option is to first export the leaf nodes of your openings, then let it analyze by a chess engine and finally re-importing the position evaluations. Afterwards you can easily use the *Copy* Position

You *can* copy the current position to the clipboard if you click on the corresponding symbol. This allows you to quickly analyze a position with another program, if you paste the position into it.

Min-Max-Calculation, because all leaf nodes have an evaluation. If you are now even more confused, please have a look at the section *Copy* Position

You can copy the current position to the clipboard if you click on the corresponding symbol. This allows you to quickly analyze a position with another program, if you paste the position into it.

Min-Max-Calculation.

4.3.1.3 Export

There are two options to export data from your repertoire. Depending on your purpose you want to export your complete repertoire as PGN or just (end) positions as EPD to analyse them outside the program and then to re-import the analysis results.
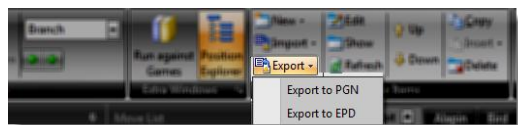
4.3.1.3.1 Export to PGN
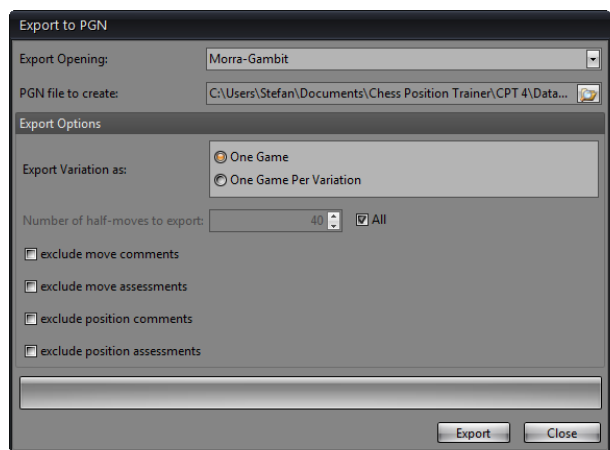
You can export an opening as PGN file which then can be imported by many other chess programs. Several options let you configure the export to your preferences. The most import one might be the option to export as "One Game" or "One Game per Variation". If you export as just one game it will have many variations. If you export as one game per variation you will end-up with many games. None of them will have any variations and many of them will be very similar as the program will create individual games for each possible line even if they only differ by the last move.

4.3.1.3.2 Export to EPD
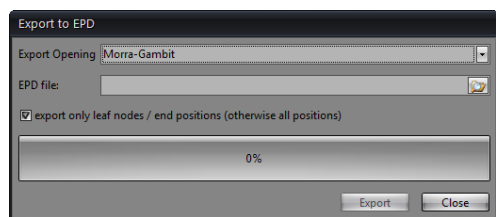
The EPD export will be especially interesting for those players who want to use the *Copy* Position

You *can* copy the current position to the clipboard if you click on the corresponding symbol. This allows you to quickly analyze a position with another program, if you paste the position into it.

Min-Max-Calculation function. You can easily export just the end positions (leaf nodes if you think about a tree representation of all variations). Then use a program which let you utilize a chess engine to analyse each position in the EPD export file and finally re-import the evaluation for each analysed position. Afterwards you can use the *Copy* Position

You can copy the current position to the clipboard if you click on the corresponding symbol. This allows you to quickly analyze a position with another program, if you paste the position into it.

Min-Max-Calculation.

4.3.1.4 Changing your Repertoire Items

A repertoire is usually an ongoing work which you want to fine-tune, edit and extend. The program offers you many options to easily achieve this.
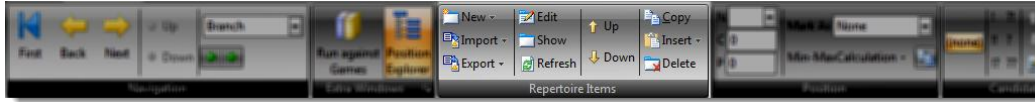
4.3.1.4.1 Edit

If you click on **Edit** a window pops up which let you change the name of the repertoire item and add a comment.
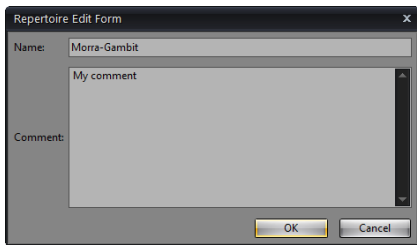
4.3.1.4.2 Show

If you want to work on an opening you have to show it first. It is then loaded and shown as a new tab above the chessboard. The program loads the last move list, populates all windows (candidate move list, position explorer etc.) and shows the last position on the chessboard.

Besides an opening you can also use the **Show** button for variations and sub-variations. However, there will be not a new tab created with the name of the (sub-)variation. Instead the parent opening is shown, but the move list of the (sub-)variation is used. This let you quickly jump to key positions or sub-systems.

You can trigger the **Show** command by double clicking on a repertoire item too.

4.3.1.4.3 Refresh

The **Refresh** command will ensure that all shown data is current by reloaded the data for all windows.

4.3.1.4.4 Copy & Insert Repertoire Items or Moves

You can copy any repertoire item except the repertoire itself and the belonging Black and White folder. You can even copy a folder and all contained repertoire items (e.g. openings) will be copied too.

Just click on the repertoire item you want to copy. Then either use the context menu by right-clicking or click on the **Copy** button in the ribbon. Now, select the repertoire item where you would like to insert the just copied

item. The **Insert** button will be only enabled if you can insert the copied item. A dropdown will let you select **Add Repertoire Item**.

Special Case: Add moves

Sometimes you want to copy just parts of your opening into another one. For this purpose you can use the copy function as well. However, it works slightly different. Show the opening of which you want to copy the moves. Then navigate to exactly the position from which on you want to copy all moves. Click on the **Copy** button. Now, depending on which repertoire item you select as the target you can either insert the complete opening or just the move. If you click on another opening you see the command **Add Moves** enabled. That means you can add the moves of the source opening to the target opening.

If you add moves from one opening to another the following happens: First, all moves of the move list of the source opening are copied to the target opening. Then, starting from the last position of the move list of the source opening all derivable moves and positions are copied too. This will be done recursively. In other words: Any position which is reachable by any move order (which is represented in your source opening) from the current position on will be copied.

Let's have a look at the following example:
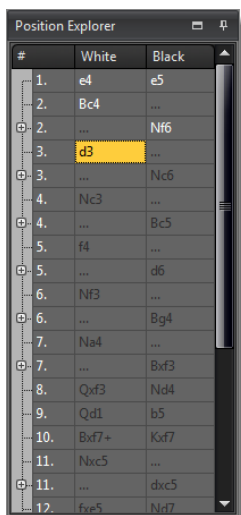
The position explorer shows all moves of the current move list with a white font. The current move list ends with "d3". Now, if you copy and insert these moves into another opening the program will add all moves from "1. e4" up to "3. d3", but also all moves after "3. d3". You can see that there exists an alternative to "3... Nc6", because there is an icon indicating you can expand it. The same is true for "7.... Bxf3". All these alternatives are

copied into the target opening too. However, you can also see that there exists an alternative to "2... Nf6". This alternative is **not** copied! If you want to copy this alternative too you have to navigate backward to "2. Bc4".

As the last move list of the source opening is always is used for copying you could actually copy the moves even without showing the opening first. Actually, if you click on the copy button and move backward or forward and then insert the moves the very last move list is used again and not the one which was current than you clicked on the copy button.

4.3.1.4.5 Change the Order of the Repertoire Items

You can use the **Up** and **Down** buttons to manually change the order of your repertoire items. Just click on a repertoire item which you want to move up or down and then press the respective button.

4.3.1.4.6 Delete

If you want to delete a repertoire item and it has child items they will be deleted first (this will be done recursively if more child items exist). In case the item is currently shown it will be closed. Then all positions and moves will be deleted which are unique to this repertoire item. Some positions and moves are part of other openings too. In this case they will be not deleted in order to not affect them.

Important: If a position is indeed deleted all its information is gone. Even if you later import or manually add a position or move which was original part of the deleted repertoire item you won't have any training statistic back (for example). Of course, this is only true if the position was really deleted (and was not part of another repertoire item).

4.3.1.4.7 Drag & Drop Support

You can easily move repertoire items by dragging and dropping items.
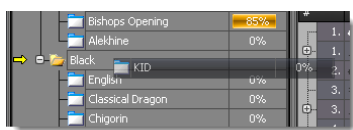
Just press the left mouse button while you are hovering over the item with your mouse. Keep the left mouse button pressed. Then move (drag) the item over the desired target item. If you can drop the item the mouse icon will visually indicate this to you. Release the left mouse button and the item will be moved to the new position.

4.3.2 Move List
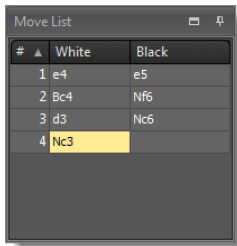
The move list window shows you the moves leading to the current position. If you navigate forward or backward in your opening the move list will be accordingly updated. If you create a variation it is this move list that is used. You can change the evaluation of the moves in the move list:

Just click on a move in the move list and then click the desired move evaluation in the ribbon.
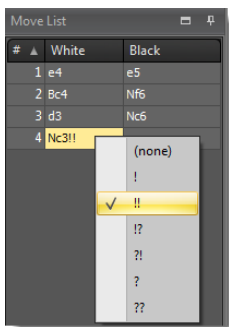
You can achieve the same by using a context menu (right click on the move).

If you double-click on any move in the move list the chessboard will show the position before the move and all moves after this position are removed. This includes the move on which you clicked.

4.3.3 Candidate Move List
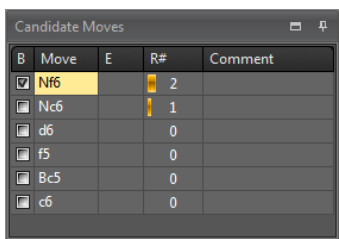
The candidate move list shows all considered moves for the current position which are also called candidate moves. In this context "considered" means that either you manually added the move to the opening or you imported it from a PGN file or another database. It does not mean that all possible or even just good moves are shown. Instead it is your responsibility to make sure you don't miss any important candidate move for every position of your opening. It is recommended to get familiar with the concept of candidate moves by reading the section *The concept of Candidate Moves (p. 17)*.

If you double-click on a move notation the move will be executed and added to the move list.

In classical game databases you have only a move list and variations are shown within the list. They get quickly clumsy and hard to read. CPT separates the move list from alternative moves per position. It is also very easy to browse through all variations.

You can add moves to the candidate move list by making a new move on the chessboard (besides importing moves). The move will be added to the current opening.

Let's have a deeper look at the candidate move list. The description of the columns and the abbreviations of their names are explained next.

Best Move

The first column shows whether the move is considered a "best move" or not. This information can be used for training where you can determine to accept all "best moves" and not just the top-ranked candidate move. You might want to have more than one candidate move for a certain position where it is your side to move to make it your opponents harder to prepare their game against you. Please also refer to *Correct Move (p. 72)* in the training section.

Opening

The Opening column shows you to which opening the candidate move belongs. This column is only displayed, if at least one move does not belong to the current opening. If a move is part of the current opening it is highlighted. In the example the Bishops Opening is the current opening and "e5" is part of the Bishops Opening. You can see that other candidate moves exist for this position, but they belong to other openings and are therefore not highlighted. For example "c6" leads to the Caro-Kan Opening. If you double-click on a move which is part of a foreign opening the program will first show the opening and then create a move list which will end with the move you have double-clicked.

Evaluation (E)

You can add an evaluation to a position (s. *Position Evaluation*). This column gives you a preview of the evaluation of the position which you will reach by selecting this candidate move to continue.

Repetition (R#)

Similar to the position evaluation this is a preview for the succeeding position. In this case it shows how often the position was successfully recalled during a training session.

Comment

You can add comments to moves (additionally to positions). If you double-click on the column of the move you want to add or edit a comment a window will pop-up and let you edit the move comment.

You have several commands available to edit your candidate move list:
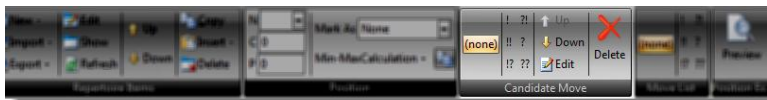
4.3.3.1 Move Evaluation

This let you change the move evaluation of the selected candidate move. Just click on an evaluation, e.g. "!?".

4.3.3.2 Changing the Order

The **Up** and **Down** buttons let you change the order of your candidate moves. For your side only the top-ranked candidate move is considered to be correct for training unless you changed this default setting.

4.3.3.3 Edit Comment

You can add a comment to a move besides a position comment. If you click on the **Edit** button a window will pop-up and you can edit the comment.

4.3.3.4 Deleting a Candidate Move

Besides deleting a complete opening this is the only way to delete any positions and moves from your openings.

If you click on the delete button the candidate move will be deleted. At the same time it will delete all follow-up positions and candidate moves which only exist because of this candidate move (you can't reach the position by

any other candidate move order in your opening). In case that a follow-up position is reachable by an independent candidate move order of your opening, it won't be deleted. So this function just ensures that you still have a consistent database where all positions and candidate moves are valid and reachable. Two simple examples to explain this a little bit more. Let's assume you have the following moves in your database:

1. d4 – d5, 2. c4 dxc4 → if you delete the candidate move d5 the positions of c4 and dxc4 will be deleted as well as the respective candidate moves. At the end only the move d4 is left.

Now let's say we have the same moves as above and additionally these moves too:

1. c4 – d5, 2. d4 dxc4 → if you delete again the same candidate move of our first example (d5), dxc4 won`t be deleted in this case, because another candidate move order is leading to this position too!

It's important to know that really all follow-up positions and candidate moves are deleted which are only reachable by the candidate move to be deleted. If you confirm the deletion there is no way to get them back except to enter them again (including all comments and evaluations, because they have been deleted too). They are not just hidden!

Additionally to the ribbon commands you can also invoke a context menu by right-clicking:
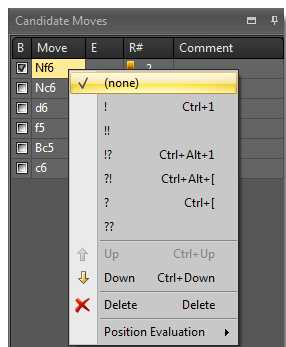
The context menu contains one additional function: **Position Evaluation**. This let you change the position evaluation of the succeeding position without having to navigate to it first.

4.3.4 Chessboard

The chessboard is in the centre of the screen placed. It offers the only way to add new moves to your openings (beside the import function).
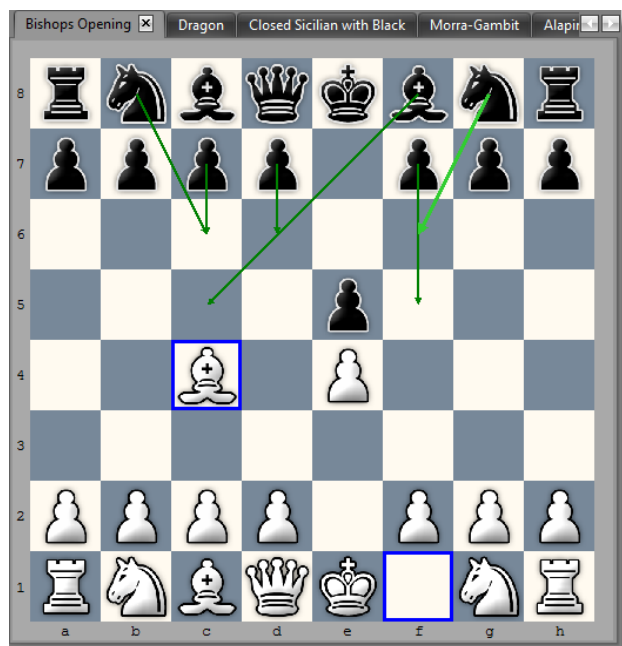
At the top you can see all loaded openings. In the example the Bishops Opening is shown. All other windows like the **Candidate Move List** or **Move List** will synchronise with the chessboard and currently shown opening. If you want to switch the active opening you can either click on one of the tabs at the top (if it was previously already opened) or use the *Opening Repertoire Explorer.*

If you close all tabs the chessboard will vanish. Don't worry. Just open another opening and a chessboard is shown again.

The chessboard offers several visual helps to recognize all candidate moves and their ranking as well as the last played move. In the example above the last move is visualized by two blue boxes for the f1 and c4 square. A light green arrow indicates your top ranked candidate move Nf6. A darker green arrow shows your other candidate move for this position: Nc6.

You have several options available to adjust the chessboard square colors, candidate move arrows and the last move highlighting. You can find these options on the "Visuals & Sound" ribbon page (*s. Adjusting chessboard orientation & colors*.).

Move a Piece

You can drag & drop a chess piece to make a move. If the move already exists for the opening the program will just move forward. The move will be added to the move list and the succeeding position will be shown.

If the move does not yet exist it will be created and added to the current opening first. If the move already exists for another opening, but not for the current one then the move will be just added to the opening (no new move

will be created). That means that a move comment or evaluation might already exist although you just added it to the current opening.

4.3.5   Previous Move List

The **Previous Move List** window shows you all candidate moves in your repertoire which lead to the current position.
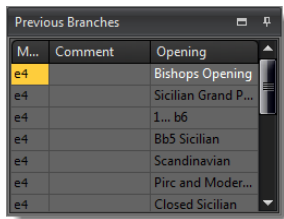
The opening column indicates to which opening the candidate move belongs. The comment column shows the move comment.

If you double-click on a move in the previous move list the program will navigate backward by this move in the move list. In the case you click on a move which is part of another opening it will be shown first and then a move list will be created which ends with the double-clicked move.

4.3.6   Position Explorer

The Position Explorer is a very powerful component which gives you an alternative way to navigate through your opening.
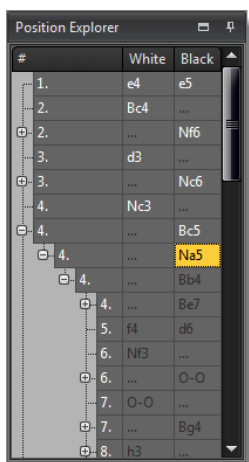
It is always synchronized with the *Move List* in the meaning that the moves of the Move List are shown highlighted in the Position Explorer. If necessary the move list of the position explorer is expanded where needed.

Variations are shown by adding a button to expand the move list. If you click on an expand button you can see the alternative moves otherwise you can always only see the top-ranked candidate move. In the example above you can see that Black has two alternatives for the 7th move. The first one is Bxf3 and the other one is Bh6. If you double click on a move the corresponding position will be shown and the Move List will be update its move accordingly to the move list of the Position Explorer.
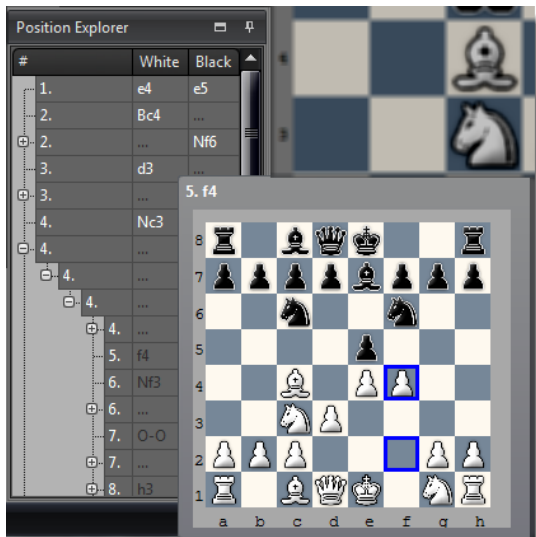
The Position Explorer offers a very useful tooltip function. If you move over one of the moves in the Position Explorer and wait for a short moment a small chessboard is shown as tooltip which shows you the position after the move. This offers you a great way to quickly check your opening and variations without having to actually navigate through it.

4.3.7 Position Comment

You can add a comment to every position without any length limitation. The comment is automatically saved.

At the moment you can't add any layouts or formatting to a comment, but this will change with future versions.

4.4 Miscellaneous Position Operations

Besides the position comment there are a few more things you can do on a position based level.

4.4.1 Position Evaluation

You have three different formats to enter a position evaluation:

- N: Normal notation for position evaluation.

- C: Computer Evaluation. You can enter any decimal number. Usually used for min-max-calculation.

- P: Personal Evaluation. Same as Computer Evaluation, but exclusively used by yourself.

4.4.2 Mark Positions with Labels

You can add a label to a position which will help you to navigate through your opening. Some labels are auto-matically set by the program like the "Move missed" which is actually used while running some games against your openings (s. *Run Against Games p. 61*).

The label "Training" will be used when you mark a position during your training session. Others can freely used by you. Especially the "not complete" label is useful when you enter new variations for your opening, but can't complete them for the moment.

The position labels would be not half as useful if you could not use them for navigating through your opening. You can easily move forward or backward to the next position with a selected label in the navigation group (e.g. you can easily check the next position which was marked as "not complete" to continue your work). Please check for this the section *Navigation (p. 42)*.

4.4.3 Copy Position

You can copy the current position to the clipboard if you click on the corresponding symbol. This allows you to quickly analyze a position with another program, if you paste the position into it.

4.4.4 Min-Max-Calculation

The min-max calculation is a powerful function to find forcing winning variations for an opening. The premises are evaluated leaf nodes (end position) for all variations.

In general the min-max-calculation works as follows: Let's say there are two candidate moves for a position: Ne4 and Qg6. Now you know that Ne4 leads to a position +- and Qg6 to =. This means that the current position is already +- as you can get into a variation which is evaluated as +- (assumption: all relevant candidate moves are already covered). The whole trick is now that the program makes this decision for you and goes through your whole opening backwards and while doing so it will update the position evaluations accordingly to the best possible result the side to move can achieve.

The whole process is recursive and the program starts with your leaf nodes that means all end positions of your repertoire where no further candidate moves exist are checked first and then going backwards through all variations up to the start position. In case all leaf nodes have an evaluation you will receive a fully evaluated opening (every position will have an evaluation) even though you only entered this information for the leaf nodes (or you used the EPD import/export function!). The program offers a function to jump to a leaf node which has not yet an evaluation, but it will also import this key information if you have some good PGN files already.

Use the option to run the min-max-calculation based on computer evaluation if you imported an EPD file or in case you used this field rather than the informator symbols.
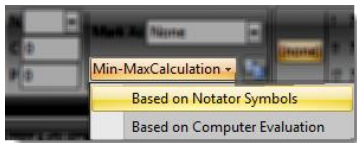
4.5 Run Against Games

That's probably one of the most powerful features which CPT offers. The typical situation: You play several games over the internet or at a tournament. How can you find out what went wrong? Yes, you can use a chess engine let it analyse it and finally let it show you what it would have played different. But if you entered already your whole repertoire, I bet you would like to know where you or your opponent played a so called "novelty". That is, a move not covered by your repertoire. Your chess engine will show you moves which it questions and you played absolutely by intention, because they are part of your repertoire. Of course, from time to time you have to check your lines again, but straighter forward is a different approach which CPT follows.

In a nutshell: This feature let you run any PGN games (for example your blitz games on an internet chess server) against your complete repertoire. It will show you then where you or your opponent played a move which is not yet covered by your repertoire (it checks all your openings automatically!). Then you can easily analyse the

position and decide either to add the novelty or discard it. Of course, you can not only run your own games against your repertoire, but also from someone else (e.g. a strong player who plays the same opening(s) as you).

The beautiful thing about this feature is the little effort it asks from your side although it sounds like a pretty complex task (actually it is, but CPT takes care of it).

If you click on the **Run Against Games** button you will be asked to select a watch file in PGN format and to provide a player name. Additionally you can limit the query to just one side.
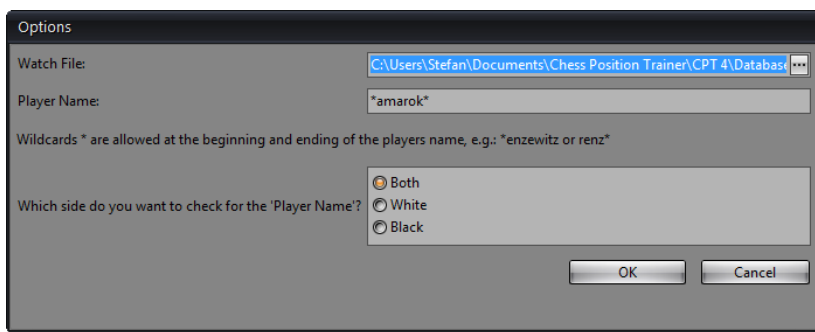
If you click on **OK** a new window will open showing you all games of the PGN file which match your criteria's. The first game will be loaded and run against your repertoire. As a result the novelty of the game will be automatically highlighted.

If you click on any game in the game list the program will show you immediately the novelty played in that game. At the same time it will show the last position of your best matching opening before the novelty is played in the main window.

The magic happens in the background. CPT checks all openings and finds the one which covers the game the best automatically. While it is checking the game it saves the information where you or your opponent didn't play a candidate move for any position. In the case of your opponent he has only to play any candidate move for a specific position, but in your case you always have to play the first ranked one. The first deviation will be shown.

So the meaning of a novelty is different depending on who deviated first. If your opponent deviated first it simple means that you didn't consider this move yet. Maybe, because it's obviously a bad one or you really didn't expect it. On the other hand, if you didn't play a candidate move you made a mistake, according to the candidate move concept and the repertoire which you entered. There is one exception: there is no candidate move at all for example because it's move number 20 or so and you are not interested in covering the variation any longer.

Play around with this feature and you will soon realize that you are no longer throwing away useful information for example from internet blitz games, because you are too lazy to check the last 20 games manually.

4.5.1 Update Training Scores

Operates on all games and will update the training score for all positions which have been played in the games till the novelty is reached. It's like CPT was watching your games in training mode.

Moves played by your opponent are ignored for updating training scores. If you played a move accordingly to your opening it will be considered like you have been presented the position in a training session and you played the correct move. If you didn't play your pre-defined candidate move the same logic applies, but for not correctly played moves in a training session. At the same time the algorithm will stop for the game as you (or your opponent) left your repertoire already.

Afterwards you should archive the games of the watch file to avoid updating the same positions twice.

4.5.2 Copy + Mark

Operates on all games and will copy the novelty move of each game to the corresponding opening in your repertoire and mark it as 'Novelty'. Later you can easily navigate through all novelty positions in the main window (s. *Navigation p. 42*).

4.5.3 Remove Game

Will remove the currently selected game from the game list, but not delete it. Thus, if you start 'Run Games Against Repertoire' later the game will be shown again.

4.5.4 Move Games to Archive

This will archive all games of the watch file into another PGN file. Afterwards the watch file will be empty.

Please note that no filter (e.g. player name) is checked for archiving the games. This means that always all games are copied to the archive file and all games of the watch file are deleted.

5   Training Module

The training module is a core part of the program. It helps you to memorize your opening repertoire in an efficient and structured way.

5.1   The Methodology behind the Scenes

In order to understand the following training methodology you have to understand the concept of candidate moves (s. *The concept of Candidate Moves p. 17*).

If you use the training functionality of the program, it will test you in your openings by playing the opposite color. It will present you a position and you have to play the right move for your side. The right move is by default the first ranked candidate move. So the order of your candidate moves is very important for the training. The training positions will be shown without any hint for the candidate move. If you don't play the correct candidate move after two attempts the position will be considered as not learned otherwise, if you played the right move with the first attempt it is considered as learned. Each opening has a training score which is calculated based on the number of positions which are considered as learned. You can add or edit candidate moves in the opening module (p. 40).

Now, the idea which made CPT popular was to incorporate the flash-card concept into a chess software program. This means that CPT tests you systematically in your openings and stores the results for each position. If you didn't remember the correct candidates move for a position it will test you in these positions more often than in those where you did remember the candidate move. This approach ensures that you don't miss any position, because CPT considers all positions of your repertoire. At the same time it helps you to focus on your weaknesses – automatically. Other software programs at that time when CPT 1 was released would either not offer any training functionality at all or test you absolutely randomly which is not really efficient nor does it ensures you are really tested in all positions.

Another aspect which made CPT the first choice for training a repertoire is the almost infinite training options.

Anyway, nothing is perfect. The previous implementation had two major flaws, which have been resolved with version 4 and will greatly improve the training experience:

- You had to train all new positions first before the program asked you to recall a learned position

- You would be asked to recall a position too early / too late

CPT 4 let you recall positions even if there are not yet learned positions. Actually, it even tries to push you to recall scheduled positions before learning new ones.

Furthermore, by applying the logic of space repetition (similar to the flash-card concept space repetition is already a well-known concept in other learning areas) CPT makes sure you are only asked to recall positions which you are about to forget, but not earlier and thus saving significant time. This sounds like magic at first, but there exists some serious science behind this methodology supported by much practical data.

Let's investigate this a little bit more to give you a better feeling and trust into this methodology. If you would recall each position of your openings everyday you would soon have a recall rate of 100%. However, first of all you won't have the time which is required to repeat all positions everyday (some openings can easily have more than 10.000 positions). And at the same time you will get tired by repeating positions you already know very well (e.g. the first move e4 is not too hard to remember). Now, let's get to the good news. Research has shown that with each time you remember an item (in our case chess position) you will remember it for a longer time and thus the interval for recall can be extended. You can optimize this interval by defining what forgotten-ratio you would like to have. Again, if you want to recall 100% you would go for a one day interval.

However, this is pure mathematic based on research data: it makes sense to accept a forgotten ratio of 20%. This seems to be the optimum in the meaning the time you lose by having to re-learn 20% is justified by the time you save by using a longer interval and thus recalling less often your positions.

There is even more good news: you don't have to think about this methodology too much, because CPT is taking care of it. It automatically defines for each position what the perfect next recall-interval is, depending on your last training result and the number of successful repetitions.

This said it is very important that you really do the recall sessions as scheduled by the program otherwise your recall ratio will be much worse than 20%. Thus the program pushes you to recall positions which are due before you can learn new positions. This might not suit everybody, but it will pay-off in the long-run. If you want to see when your next sessions are schedules you can check the *Opening Training Scheduler (p. 76)* which you can find in the *Statistic Module (p. 75)*. Additionally the program will show you on every program launch the scheduler if any recall sessions are soon due.

5.2   The Training Modes

If you want to train your openings you have to decide whether you want to learn new positions, which you haven't trained yet or if you want to recall positions, which you have trained already at least once. If you choose one of the recall modes you are not presented any new positions (which you might have added in the past). It is strongly recommended to first recall scheduled positions before you learn any new positions. Otherwise you will forget your already learned positions.

5.2.1   Recall Modes
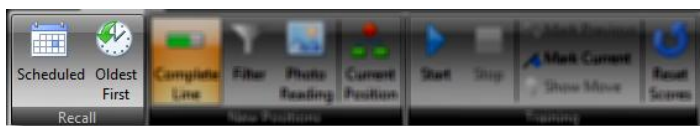
If you regularly recall scheduled positions you will be able to memorize very complex repertoires with little effort after a while. The initial phase will require some work on your side though as the recall intervals increase over time (the first recall interval is just a day and it increases up to months after several successful recalls).

5.2.1.1 Scheduled Recalls

The recall mode 'Scheduled' let you recall already learned positions just before you are about to forget them. Thus it should always be checked before you learn any new moves.

When you choose this training mode the program will consider any position for recall, not just for the selected opening!

The program calculates for each learned position when is the right moment to recall the position. It won't show you the position before this date. The more often you have passed such a recall the longer it will take before you will be asked to recall it.

It is very important that you recall positions timely. Whenever you load a repertoire database the program will automatically check for positions which are due and inform you in this case. You can also check the statistic module and there the scheduler who shows you the scheduled recalls for the next days.

You can reset all training dates by using the corresponding "Reset Scores" command.

5.2.1.2 Oldest First

The recall mode 'Oldest First' let you recall already learned positions. Unlike the 'Scheduled' mode the program will present you positions even if they are not scheduled for today. Instead the positions with the oldest training date will be recalled first. Furthermore the "Oldest First" mode will only present positions of the selected opening.

This approach is not as efficient as the 'Scheduled' mode, but sometimes you might want to just recall certain openings thoroughly in order to prepare for your next over the board opponent.

In CPT 3.3 the training methodology was based on this approach.

5.2.2   New Position Modes

Unlike the recall modes you will only be presented positions which you have never trained before. Thus, once you have trained a position by one of the following modes they will be presented again only through one of the recall modes later.

All training modes to learn new positions are applied to the selected opening only. You have to select each opening and train it individual.

5.2.2.1 Complete Line Mode

In this training mode you will be always asked to play complete lines. The program will first search for a not trained position and then create a move list leading to this position (and further depending on your 'Line Complexity' settings).

Some chess players feel more comfortable if they play complete lines instead of jumping right to the position which they have not yet trained. Especially for rather new openings this can help to learn the opening faster, but the more you have trained an opening the more you are going to repeat positions you already know. Therefore it is recommended to use this mode in combination with one of the following two options then. The "Current Position" option let you start from a certain position (which is currently shown). This way you can add a new branch to your existing opening and then train just this new branch. Another very useful option is to "Start with new Position". It let you still learn your new positions in a structured way, but you avoid having to play the same first moves over and over again.

5.2.2.2 Filter Mode

The filter training mode is an efficient way for training new positions. It will only train you in not yet trained positions.

This also means that it is very likely to be presented positions which are not connected or part of the same line.

Some people don't feel comfortable with this mode which looks randomly at first, but it is 100% focused on not yet trained positions and thus an efficient way to train your opening as you don't spend time with positions which you already learned and should not recall yet.

5.2.2.3 From Current Position

In some cases you might want to train from a specific position on and ignore any other earlier variations.

For example, you have a black opening against Sicilian. Maybe you want to train against the main lines and no Anti-Sicilians for the moments. Then just navigate to the first position which ensures a game against a main line. Get back to the training module, select the opening and click the "From Current Position" button before you start the training.

5.2.2.4 Photo Reading

This mode is new in CPT 4. It's following another theory for learning new items. If you select this mode CPT will show you randomly positions of your opening for a short moment before it shows you the correct candidate move. The idea is to make the moves sticky in your mind in a rather unconsciously way. You are not really supposed to consciously understand the position. One drawback is of course that program has no chance to focus on your weaknesses for obvious reasons, because there is no physical interaction and thus the training scores of your positions are not updated! It works rather like a slide-show so to say.

5.3 Start Training

After you have selected an opening from the dropdown list you can start a training session by clicking on the **Start** button in the ribbon.

Before you start training the selected opening you might be asked to recall positions which are scheduled for today. This is the key to the whole training approach. If you don't repeat learned positions timely you will forget them and eventually waste time, because you have to re-learn them.

When the training starts a new window is shown to provide you additional information during the training session:
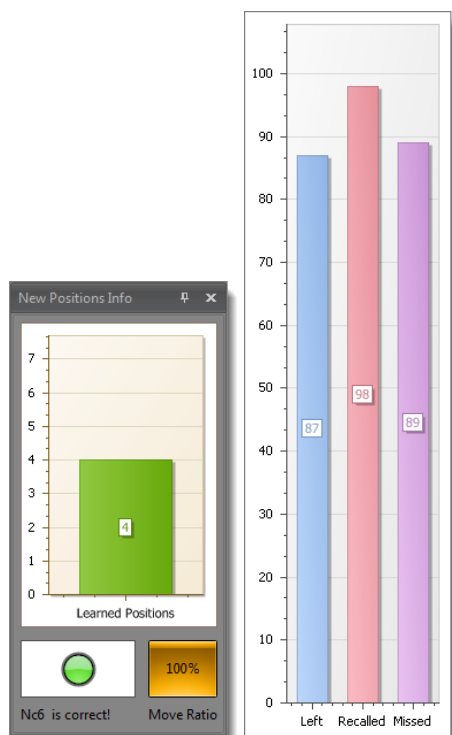
Depending whether you are learning new positions or recalling positions the chart will show you how many positions you've already learned during your current positions (see left image above) or how many positions are left for recall, how many you recalled correctly and how many you missed (see right image above).

Below the image follows a graphical indicator to provide you feedback about the last move you made. If it was correct it will be green otherwise red and a text telling you that the move was wrong.

The "Move Ratio" / "Recall Ratio" bar indicates how you are doing during your current session. The more often you play the correct candidate move the higher will be your percentage.

Please note that the move list window is only updated if you selected the complete line mode. Otherwise it will be empty.

Sometimes you want to start a training session and the program tells you that there are no positions left for training. This can happen if you trained already all positions and none is due for recall. Remember, the program makes sure you don't recall positions too early and thus save time. In this case select another opening or check the *Opening Training Scheduler* to find out when are positions due for recall.

Please note that there might be positions for recall, but you have selected a mode for learning new positions and thus no positions are left. In this case just choose a recall mode. Of course, the opposite can be the case too, if you are using a recall mode, but no positions are scheduled, but there are new positions to learn. Then just switch the training mode.

5.4 All Training Options in Detail

You have many options at your disposal to tweak the training to your likings:

The **Start** button let you start the training while you can stop the training anytime by clicking on the corresponding button. You always have to stop a training session before you can switch the module or exit the application.

The **Mark Previous** and **Mark Current** buttons let you mark positions as "Training". Later you can easily look-up positions which are marked as "Training". You might want to mark a position for later investigation during your training session. The **Mark Previous** comes handy if you want to mark the position which was

shown before, because sometimes you realize only after a position was shown that you would like to further investigate it. If you missed a move or wondered whether not a different candidate move would be better you can easily mark the position without having to interrupt your training session.

The **Show Move** command shows the correct move for the current position. Please be aware that the position will be automatically considered as not known if you use the tip function.

5.4.1 Line Complexity

The **Line Complexity** group let you control how deeply you want to train your openings. In the beginning you might want to focus on the main lines or the first moves to evenly learn all openings instead of one till move 30th and others not at all. These options give you the chance to control exactly this.

Max Length of Line determines what the maximum length of any line should be. You can decide to learn just the first 15 moves and then stop there. For some openings you will already cover all important positions with these settings while others like the Dragon have theory for up to 30 moves or even more.

The **Max Depth of Sidelines** is another way to limit the training for an opening. If you enter 1 you are only going to train the main line (top ranked candidate move of the opposite color).

You can also consider all sidelines for the first X moves and only then focus on the main lines. The option **Ingore Sidelines after X Moves** let you achieve exactly this in conjunction with **the Max Dept of Sidelines** option.

5.4.2 Correct Move

The standard setting requests from you to always play the top ranked candidate move for your side. Usually you don't maintain more than one candidate move for your side anyway. However, sometimes you want to be more flexible and at certain key position you want to prepare an alternative to your main move. In this case you have to add more than one candidate move for those position and then select for training either "All Best Moves" or "All Non-Negative Moves". In this case the program will accept not just the "Top Ranked Move" as correct reply.

5.4.3 Complete Line

If you have chosen the *Complete Line Mode (p.69)* mode additional options are available.

Select Restart **After Wrong Move** and the program will repeat the same line if you made any mistake along the whole line.

Always Demo Line First will let the program demo each line first by playing both sides before you are asked to take over your side while the program will play only the opposite color.

Then you can choose to **Start with New Position** always which is an extremely handy option to learn a new opening in a structured way, but without repeating the same positions over and over.

5.4.4 Blindfold

This option is only available if you have selected the *Photo Reading (p. 70)* mode.

The blindfold option opens a totally new dimension for training. It let you train your visualize skills not just by some rather abstract training units, but by playing your own, personal repertoire!

You can select which pieces you want to hide by the option **Hide Pieces**. Only hide all pawns or queens? No problem. Just for black or white? This is also possible.

Next select **Restrict to** for further adjustments. This let you in combination with the previous option hide for example pawns just in the centre.

Finally you can **Hide Dragging**. In this case the mouse cursor won't indicate which piece (or none) you are dragging.

Overall with these three options you have a powerful set of options to improve your visual skills which will have a positive impact on your chess.

5.4.5 Photo Reading Mode

You have three sliders to change how long it takes **before** a position is shown (till then the board will be hidden), how long it takes **after** the position was shown till the correct move is displayed and finally the time till the chessboard **fades out**.

5.4.6 Hint

You can use move or position comments as additional hints when you failed to find the correct candidate move. This can help not only to find the correct candidate move, but also to learn the idea behind the move if you cre-

ate a comment which describes it. Then just choose to show the comment after the first or second failed attempt or decide to show comments always straight away.

5.4.7 Demo Line

If the training has started and you have chosen the *Complete Line Mode (p. 69)* mode in conjunction with **Always Demo Line First** you have an additional option during the training session (**Demo Line**):
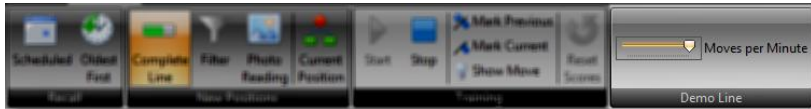
The **Moves per Minute** slider let you change on the fly how fast the demo line is played. If you move the slider to the right the moves are played faster.
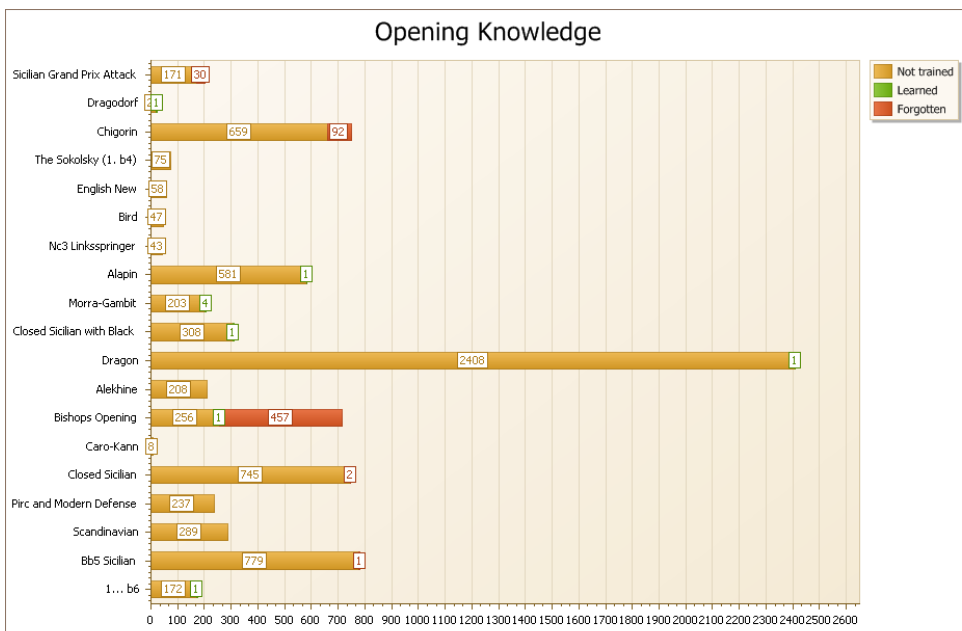
6   Statistic Module

The statistic module is new in CPT 4. It offers you useful insights for your repertoire and provides a good overview of your openings. You can export the charts as images, PDF or HTML. Furthermore you can print them.
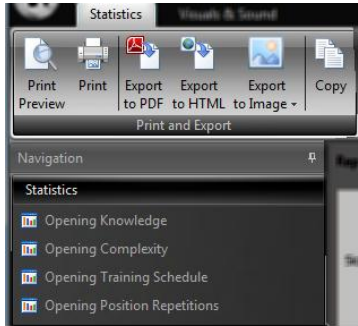
6.1   Opening Knowledge

Select a repertoire and an overview of all openings of this repertoire will be shown.

In the beginning most openings will only have a "not trained" bar. Overtime your "learned" and (unfortunately) "forgotten" bars will grow.

6.2 Opening Complexity

This chart will provide you an overview of which openings contain the most positions and hence are most complex to learn. It's no surprise that it is the Classical Dragon in this example:

You can choose to show the position distribution as percent or concrete numbers.

6.3 Opening Training Scheduler

The scheduler is the heart of your training strategy. It keeps track when you have to recall a position just before you are about to forget it. It is very important that you don't miss the recall dates otherwise you won`t be able to learn your openings in the most efficient way, because you forget them too often and you have to re-learn them again.

If you launch CPT or begin a new training session CPT will automatically remind you if there are positions left for recall. It is more important to recall positions when to learn new ones or you run the risk to waste your already invested time for learning those positions.

6.4 Opening Position Repetitions

This chart shows you how deep your knowledge is of your openings. If you have repeated a position successfully for several times this indicates that you really know it very well. If your openings are new all positions will have zero repetitions. If you forget a position during one of the recall session the repetition will be set back to zero.
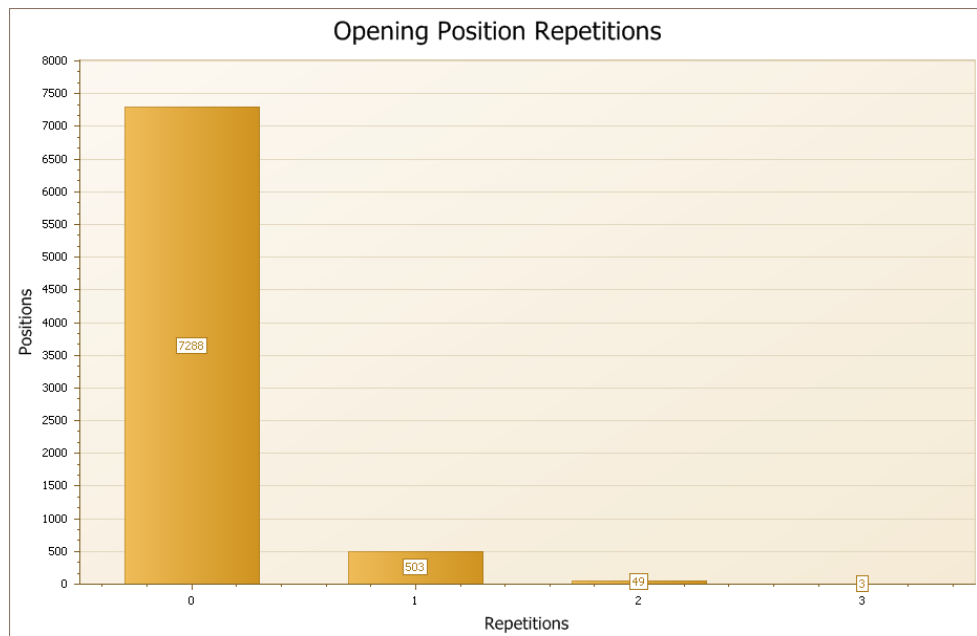
7 Tips & Tricks

- A double-click works for most lists. E.g. if you double-click on a move in the position explorer or candidate move list, it will be shown. If you double click on an opening in the opening repertoire explorer, it will be shown.

- All data is automatically saved. There is never the need to explicitly save something. Actually, there even not exists a single save button in the whole program.

- The most important keyboard shortcuts are the left and right arrows to navigate forward and backward through your opening (if you are not editing a comment). Next are shift-left and shift-right which will navigate forward and backward depending on the type you have selected in the Navigation group (by default it is "branch"). Jumping forth and back to the branches of your opening is a true time safer for many scenarios.

- You can pin the navigation pane which contains the repertoire explorer to gain some space on your screen. Just click on the small icon at the top right corner of the navigation window.

- You can drag & drop all windows as you like. Also changing the size of every window is possible and the adjustments are saved for your next session.

- Don't miss the training option blindfold as it will help you to improve your visualization skills.

- Get used to the "Run games against Repertoire" module. Once setup it is a very powerful tool to get the best out of your games (or someone else). You can even update your training scores based on played games.

- The training option "Complete Line Mode" in combination with "Start with New Position" offer a very efficient way to learn new openings and it is actually the author's favorite setting.

- Recall positions in time! Run the program everyday and recall scheduled positions and you will save a lot of time in the long-run.

8   Credits

This project would never have been possible without the support of **Gregory Prentice**. He is the guy who is in charge of the chessboard itself (navigation, validation, editing etc.) and the pgn import. So he did a lot of "background" work which enabled me to implement the features which I had in mind on top of it.

Daniel Markwald is in charge of all art works including the web-site design.

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