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Using Chess System Tal II

Chess System Tal II has been designed to give you as much control and customisation as possible. The play screen can be reshuffled by moving and resizing any of the windows. Using the left mouse button to drag and then releasing will drop the window to the place indicated. Any windows underneath will be squashed to the biggest available space such that none of the windows overlap. Holding down <Shift> at the same time gives the windows 'hard-edges' such that a window cannot be dragged past another. Try it to generate the layout of your choice. The layout on exiting is restored when the program is next run. Additionally a number of default layouts are provided.

Game Windows

Board Move History Legal Moves Best Line Clocks Inner Eye Network Console

Board

Displays the game board in a number of different sizes, either two or three dimensions, and using a choice of chess sets. You can move your pieces by mouse-click and drag.

Move History

Displays the game history including sub-variations and comments. Allows you to takeback or replay moves by clicking on any move within the history. You can also right click on a move to make a comment, or right-click on a variation open bracket to change its priority or delete it.

Legal Moves

Lists all legal moves from the current position and scores them accordingly. Left clicking on a move in the list will play that move if it is your turn. Right clicking on a move will display a score breakdown.

Best Line

Shows the variation that the chess engine currently thinks is best. If the engine is thinking in your time, it will display your predicted move in curly brackets, then its own best line. For analysis purposes, when the computer isn't playing, the engine will think in the background for each player in turn and a best line will be displayed.

Clocks

Displays each player's time. You can select whether the clock counts down or up. Either a graphical or numerical display is available.

Inner Eye

The inner-eye window displays a histogram and shows statistics relating to the current state of the computers search. A full explanation of the window would amount to a long essay on chess engines so only brief explanation has been given. The graph is a picture of the search tree. Along the x-axis is the number of nodes searched. It is scaled on the total number of nodes searched, shown at the bottom of the inner-eye. Along the y-axis is the depth of the search. The search alternates white to move/black to move, shown by the alternating coloured bars. The number of checks is shown in red, of captures in yellow, and of threats in green.

- ' bf' is branching factor and is the number of moves searched from a node, averaged over the whole tree.
- 'n/s' is nodes per second and is the number of nodes in the tree searched per second.
- ' ex' is extension percentage and is the number of nodes spent in extended search compared to in regular search.
- 'tr' is trivially and is the percentage of the search spent searching the principal move at the root.
- ' cx' is capture extensions and is the percentage of nodes searched while extending on captures.
- 'ip' is interest pruning and is the percentage of nodes pruned for being too uninteresting.
- 'tb' is table bases and is the percentage of nodes found from the End Game Table Base store.
- ' la' is line activity.
- 'he' is hash efficiency and is the percentage of successful hash table lookups.
- ' ne' is null-move efficiency and is the percentage of times the null-move made a successful pruning.
- ' hp' is hash permiability and is the percentage of times the main hash table successfully finds an empty place to store a position.
- 'pp' is pawn hash permiability.
- 'gp' is guess ponders and is the percentage of times the move guessed as being the next move played by the human opponent, is actually played.
- ' n/50' is draw count and is the number of moves left until the game is drawn by the 50 move rule.

Network Console

This window is the basis of your communication with other players over a LAN or the Internet. If you are connected to an Internet Chess Server, all information from the server and your replies will be displayed here.

A number of default screen layouts are provided. <u>Standard</u> Big Board Internet Server Technical Network

Standard

With a large 2D display, Standard is most suitable for chess play against the program engine.

Big Board

A large 3D display. All art is fully rendered, and pieces are scaled for perspective in real-time.

Internet Server

All the windows you need for playing on Internet Chess Servers.

Technical

If you really want to try and discover how chess engines work!

Network

Most suitable for playing an opponent also using Chess System Tal II, directly across a network.

File Menu

New Game Load Game Save Game Import Export Who are you Exit

New Game

Starts a new game. If you have a game in progress you will be asked if you want to save it.

Load Game

Loads a saved game from disk.

Save Game

Saves the current game to disk.

Import

Imports a game from the Internet or other chess programs using Portable Game Notation (PGN), the industry standard format for storing chess games.

Export

Exports a PGN format game to disk.

Who Are You

This option allows for creation of up to 10 different users, each with a unique profile.

New User

Create a new user profile. Each time Chess System Tal II is exited, the latest user preferences will be saved.

Choose New User

Switch to a different user profile.

Delete User

Delete an existing user from the list.

Exit

Exits Chess System Tal II. The current game position, screen layout and preferences will be automatically re-loaded on your next startup.

Setup Menu

Setup Board Set White Player Set Black Player Time Mode Hash Table Opening Book End Game Table-bases Set Clocks

Swap Sides

If the current side to move is being played by a human, 'swap sides' will force the program to start thinking instead. The opposite happens if the side to move is the computer. This is a quick way of making the computer start/stop thinking.

Setup Board

This option allows you to set up any legal board position. Select the piece you want by hilighting it in the *Piece Selection window*. You can then place it on the board by clicking the left mouse button on the appropriate square. Once you are happy with the setup you can click finish in the *Piece Selection window*. You are then asked who you wish to move first. Please note that you are not allowed any more than 16 pieces for each side, or to setup an illegal position.

Set White Player

Shows who is playing as white, human, computer or network; and allows appropriate selection. Network player would be a remote computer on a Local Area Network, Internet Chess Server, Modem connection or Serial cable.

Set Black Player

As above, for black.

Time Mode

Blitz

Set the time to complete the whole game. If the game is not completed within the specified time limit that player has lost. The initial time is the time each player has at the start of a game. The increment is the amount of time given to a player after each move. A typical Blitz game would have an initial time of 2 minutes and an increment of 12 seconds.

Infinite

The program will think forever about a position until prompted to move using "Move Now" option.

Average

Set the average time the computer aims to play each move.

Tournament

The standard chess tournament time mode, using primary, secondary and tertiary time controls, Chess System Tal II will use its time intelligently over the course of the game. In tournament chess it is required that both players meet certain time controls. The standard controls are 40 moves within 2 hours then 20 moves each hour after that. In Chess System Tal II you may set up to three time controls, the third one is cycled. Time is cumulative so if you only take 1.5 hours to make the first 40 moves you will have 30 minutes spare on top of the 1 hour you are expected to make the next 20 in.

Matching Time

The computer will try to play at the same time as you.

Exact Time

Set the exact time you want each move to be played in. Normally Chess System Tal II treats the time control flexibly, thinking longer when necessary and quicker in trivial positions. In 'Exact Time' mode the program will think for exactly this amount of time.

Hash Table

A hash table stores information about previous positions searched by the computer. If these positions are met again then Chess System Tal II needn't evaluate them, thus saving time. The larger the hash table the more positions the program can store. This then maximises the chance of previously searched positions appearing again. The main hash table is the most important and should therefore be dedicated the most part of the memory. You can set or clear hash tables using the following options:

Main Hash

Set the size of the main hash table. Auto is recommended.

Pawn Hash

Set the size of the pawn hash table. Auto is recommended.

Clear Hash

Clears all hash tables.

Opening Book

The opening book is a library of opening moves, with many lines up to 120 moves long. Any book move is flagged as such in the legal move window. You can set the opening book to choose a move based on popularity, strength or randomness. Chess System Tal II uses two books, a user book on CD of 520 Mbytes and a book of gambit openings. Normally the user book has higher priority, although you can change this. If you use a book created from the DOS version, Chess System Tal, or change the directory in which a book is held, then you should use the browse button to tell the engine the new book location.

Endgame Table-bases

Endgame Table-Bases (EGTBs) are libraries of end game positions. If you have the EGTB for a given piece combination then Chess System Tal II will play chess 'perfectly'. Chess System Tal II ships with some EGTBs, but you may wish to download more from the Internet or obtain more on CDROM. But, beware, extra EGTBs can occupy several Gigabytes of disk space. The dialog box allows you to specify whether they are used or not, in which directory they can be found and how big a cache to allocate for them (16 Mbytes is recommended). You may find it necessary to store them in many different directories or media, so a number of directories in which to find EGTBs can be specified. To do this you can either enter a path by selecting an EMPTY slot and typing in the path in the available space or by selecting an EMPTY slot and using the Browse button. You are able to delete these paths by selecting the slot and deleting the information in the top box.

The Cache Size edit box allows you to specify how much RAM to allocate as a cache for the EGTBs. This number can be entered in Decimal or Hexadecimal. For Hex use 0x before the number, ie. 0x001000000 is 16 Mbytes (recommended).

Set Clocks

Allows adjustment of the time on the clocks.

Control Menu

<u>Move Now</u> <u>Move History</u> <u>Hint</u>

Move Now

Forces Chess System Tal II to play its best move found so far.

Move History

As moves are made they are added to the move history. If a move is taken back you can see the current move is the highlighted one. Playing a different move than the next one in the history will create a 'variation'. This can also happen within a variation to create sub-variations. The move history can be imagined as a tree structure of variations.

Takeback/Forwards a move

Take back/replay a move in the current variation.

Beginning of Move History

Return you to the beginning of the game.

End of variation

This will take you to the end of the current variation.

Previous/Next Variation

Cycles the current variation through the list of possible variations at the current position in the move history tree.

Comment Move

Comments the currently selected move in the move history window. Type the comment in the edit box and press Enter.

Delete Comment/Move/Variation

If the currently selected move has a comment then this will be deleted. Otherwise, the move and any subsequent moves in the variation (including sub-variations) are deleted.

Takeback/Forwards 10 Moves

Take back or replay 10 moves in the current variation.

Hint

If available, Chess System Tal II will suggest a move. This will not necessarily be the strongest possible move. The longer you let the program think about the situation, the stronger the hint move will be.

Communications Menu

Network Internet Auto232

Network

Network play options.

Connect

Select this option to start a network game. You will be given a choice between IPX connection for DirectPlay, Serial connection for DirectPlay, or TCP/IP connection for DirectPlay. If you want to run a TCP/IP game you will need an IP address. To get your IP address, connect to the Internet then run Winipcfg.exe (a standard Windows 95 program) in the run option within Windows 95/98. This will display a number of different settings, one of which will be your IP address. Your opponent will need this address to connect to your modem. TCP/IP connection is an inferior option to playing via an Internet Chess Server (see below).

Check connection

Once network play has begun, the connection between you and your opponent may be checked at any time. If all is well the message "Message acknowledged" will appear almost immediately.

Disconnect

Use this option to close a network session.

Internet Chess

This menu option allows you to play on all known Internet Chess Servers. Most servers are free, with one currently charging an annual connection fee (although it will allow you to log on as a guest for free). All the servers supported have broadly similar functionality, and provide their own online help file. For instructions on using each Internet Chess Server please refer to the relevant Chess server help file or instructions. Oxford Softworks cannot guarantee connection/compatibility with *all* Internet Chess Servers, as the specification of any chess server may change in time. Check our website <u>http://www.oxford-softworks.com</u> for upgrades.

<u>Connect</u> <u>Disconnect</u> <u>Seek Match</u> <u>Challenge</u> <u>Games Sought</u> <u>Auto Engine Accept</u> <u>Transmit Principle Variation</u>

Please note that it is obviously very easy to 'cheat' on chess servers with computer assistance. Such cheating is strongly disapproved of by most users. We recommend that when playing as a human, you de-select the 'Best Line' and 'Move List' windows, since these contain information not usually available, but helpful to a chess player. In any case, Chess System Tal II will announce, at the start of a game, whether it is playing as a chess engine or being used as an interface only, by a human. It will also announce whether extra computer information is available to you or not.

It is normal, if using computer assistance or if playing as a computer, to inform the Chess Server Administration. They will then append a 'C' to your name, signifying computer. Of course, this also helps you to identify computer opponents.

Internet Chess

This menu option allows you to play on all known Internet Chess Servers. Most servers are free, with one currently charging an annual connection fee (although it will allow you to log on as a guest for free). All the servers supported have broadly similar functionality, and provide their own online help file. For instructions on using each Internet Chess Server please refer to the relevant Chess server help file or instructions. Oxford Softworks cannot guarantee connection/compatibility with *all* Internet Chess Servers, as the specification of any chess server may change in time. Check our website <u>http://www.oxford-softworks.com</u> for upgrades.

Connect

This gives you the option to connect to an Internet Chess Server. The Hostname has a number of Chess Server addresses already included. We recommend, at the time of writing, the following:

Chessclub.com Commercial server, although you may log on as a guest. Most Grandmasters and players in general are usually to be found at chessclub.com (ICC). Freechess.org The main American free chess server is freechess.org (FICS). Eics.daimi.aau.dk The main European free chess server is eics.daimi.aau.dk (FICS).

Make sure you are connected to the Internet by your normal method. Select or type the required server address, then either enter the login name and password that you are known as on that particular ICS, or connect as a guest (some server functions are denied to guests). You can select to Join ICS from this menu. This will take you straight into that particular ICS registration system where you can apply for membership. Note you can only use a login name and password if you have already become a member. Once logged on, typing 'help' will bring up a helpfile. Some servers have 'Admins', usually on channel 1, who will answer queries.

Disconnect

Allows you to disconnect from the server. Note that this will not also disconnect you from the Internet.

Seek Match

This is a convenient method to find an opponent. Your 'seek advert' is sent to the ICS and made visible to the other users. The advert specifies whether the game is to be rated, in which case the result will count towards your grade, or unrated; the rating range of the opponent, and your starting colour. Ticking 'manual' will cause a challenge to be sent back to you when the seek advert is accepted, rather than to automatically start the game. Ticking 'repeat' will resend this particular seek after every game.

Challenge

This method allows you to challenge a named opponent. Enter the opponent's and the game times you wish to play.

Games Sought

This feature is only available on the chessclub.com (Internet Chess Club) and brings up a window showing a graph (player rating against game length) of all the people requesting games. Blue dots are computer players, green human. Hollow dots are for unrated games. If you have the 'sfilter' variable set (type 'help sfilter') then those seeks that are filtered out are shown in grey. Moving the mouse pointer over a dot gives more information on the game request. Clicking a dot will start a game with that player. If the seek had the manual option set (an 'm' at the end of the game seek request details) then selecting the dot is equivalent to you sending a direct challenge to the player concerned (which they must then accept) rather than starting a game immediately. A player may have a 'formula' (type 'help formula') which may filter out opponents according to various criteria. The Games Sought window can be toggled on and off with a button on the toolbar.

Auto Engine Accept

This is an advanced feature, with which Chess System Tal II will play automatically, using its chess engine, when challenged.

Transmit Principle Variation

This feature transmits the engine's best line on to the ICS in a variety of ways. It can be whispered, kibitzed or 'told' to a channel while playing or observing a game. The number of moves in the best line that are displayed can be varied as can the length of thought time before best lines are displayed. The display of pondering (best line while thinking on player time) can be toggled on or off.

Auto232

This is a feature used to test one chess computer against another. It is most useful for the people who write chess engines, in order to evaluate their performance. Connect the two computers with a serial cable and set up the other computer with the desired chess software. It must be compatible with auto232 testing in order to work. Put the opponent chess program into slave mode.

Connect

This connects Chess System Tal II to the com port with the serial cable. It is more desirable to use Chess System Tal II in master mode and the opponent in slave mode, as it is easier to control than other chess games that support auto232.

Disconnect

Disconnects the auto232 tester from the com port.

Start a Match

The number of games in the match can be selected, followed by the connection timeout and the maximum number of moves. These last two are to aid compatibility with all auto232 computers. Some bring up a dialogue box at the end of a game or an illegal move might occur. If something goes wrong in a game then these features will start the next game in the match. The opponent name is displayed on the clock and is used in the filename of the auto232 log file. Chess System Tal II can play all white, all black or alternate colours. The first game can be setup, in which case a new game message is not sent to the other computer. There is a long pause between games of about 25 seconds. This is because some of the older chess computers need some considerable time to save the game and setup a new game, and do not buffer the messages.

This feature can also be used to play on an Internet Chess Server using another chess computer. First you must log on to the server and set up the other chess computer in auto232 slave mode. Next do an auto232 connect; you must be in master mode now. Then do an auto232 Start a Match. Now any games played on the ICS will be against the connected computer. At the end of the game, any seeks or match requests that are being automatically sent will wait until the auto232 computer is ready, i.e. after 25 seconds.

Preferences Menu

Toolbar Switch between 3D and 2D views Flip board Choose New Pieces Screen Layout Window Layout Backdrops Graphical Clocks Count Down Clocks Co-ordinates Notation

Toolbar

Toggles the toolbar on/off.

Switch between 3D and 2D views

Toggles between 3D and 2D views. A button is also available on the toolbar.

Flip board

Rotate the board through 180 degrees. (Useful if you're playing black).

Choose New Pieces

Select from a number of different piece sets available.

Screen Layout

Allows you to choose one of five different default screen layouts, each featuring different board sizes and window combinations.

Window Layout

Select or de-select any of the display windows.

Backdrops

Toggles the backdrops on / off. Toggling the backdrop is useful for freeing memory for important items like the hash table. If you are running in low memory the program may not have loaded a backdrop, in which case the background will be grey.

Graphical Clocks

Toggles between an analogue or digital clock display.

Count Down Clocks

The clocks may be selected to either count-down or count-up.

Co-ordinates

Toggle board co-ordinates on/off.

Notation

Choose the notation format used in the move history and legal moves window. Many notations are used in Chess to denote moves. We support all of them. A brief description of each follows:

Co-ordinate

Also known as Algebraic and is simply the co-ordinates of the source square followed by the destination square. Thus e2e4 represents a move from square e2 to square e4.

FIDE

FIDE is the International Chess Federation. FIDE is the most commonly used notation amongst chess players. More compact than co-ordinate notation. It uses letters for pieces. NBRQK where N is Knight, B is Bishop etc. Except for castling, all FIDE moves contain the piece letter and destination square. So b3 would be pawn to b3. Bb3 would be bishop to b3.

Castling is displayed as 0-0 for a short castle or 0-0-0 for a long castle.

Long Algebraic

This is a combination of co-ordinates and FIDE notations. g6-g7 would mean pawn on g6 moves to g7. Nf3xg5 would mean, knight on f3 captures on g5.

Descriptive

This is an old-fashioned English language notation, included for completeness.

Correspondence

This is co-ordinate notation with the letters replaced by numbers, so a1 would be 11 and e4 would be 54.

Sound

Toggles sound effects and sound notifications on/off.

Options Menu

<u>Slide</u> <u>Sound</u> <u>Highlight Possible Move</u> <u>Click-Click Move</u> <u>Create log file</u>

Slide Pieces

Toggles piece move animation on/off.

Sound

Toggles sound effects and sound notifications on/off.

Highlight Possible Move

All possible moves are highlighted whenever apiece is selected. Toggles on/off.

Click-Click Move

Allows you to click firstly on the piece you want to move, then the desired destination square. You can choose combinations of clicking on only an origin square or only a destination square to move a piece provided there is only one move possible.

Create log file

When toggled on this will store information in a log file. The log file notes all moves played and best line information for each move. The log file is stored in the chess root directory. The file is saved as the name of white and black separated with an underscore.

<u>Toolbar</u>

Some of the most commonly used menu items are available on the toolbar. Of special note is the Chess System Tal II icon on the far right of the toolbar, which provides a shortcut to a number of functions. Pressing on this icon with the left mouse button while the computer is thinking will force the computer to play immediately. Pressed while you are thinking, will swap-sides and start the computer thinking. Pressing the icon with the right mouse button will toggle the game between human/human mode, and human/computer mode.

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Contacting us

Telephone:	UK + 1993 823463
Fax:	UK + 1993 822799
Website	http://www.oxford-softworks.com
Email:	contact@oxford-softworks.com
Postal address	Oxford Softworks, Stonefield House, 198 The Hill
	Burford, Oxford OX18 4HX, England