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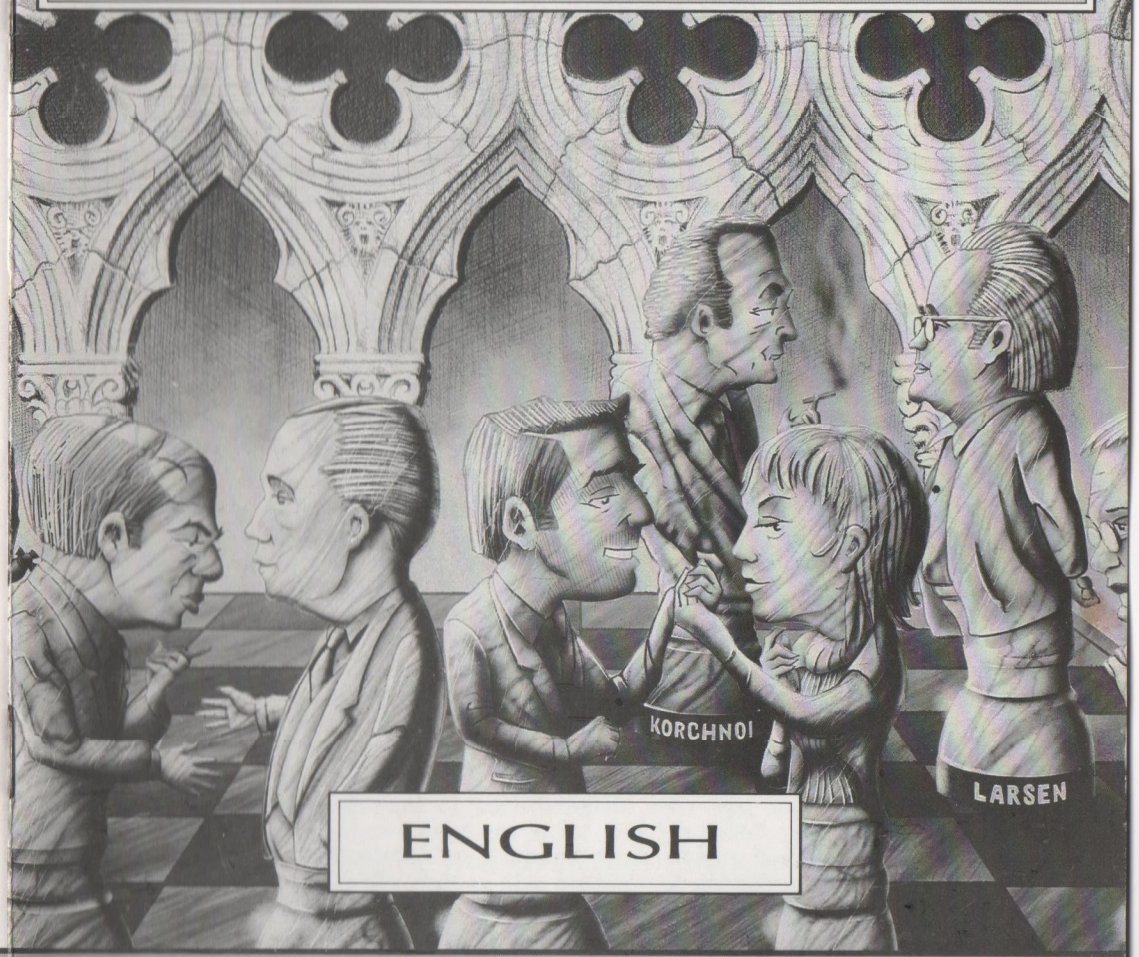
THE COMPLETE CHESS SYSTEM



ENGLISH

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THE COMPLETE CHESS SYSTEM

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Introduction

● Designed for the serious player, the Complete Chess System is a suite of powerful tools designed to meet every user requirement.

A comprehensive history of the greatest game...

● There is an integral chess storehouse capable of accessing massive databases of master games. Present-day and historical games may be loaded into the system for inspection and analysis. The integral chess playing program becomes your partner and guide through the games of the masters. Inspect and learn, annotate, or play from the point where ex-World Champion Bobby Fischer left off.

Create your own database, read other commercial databases. Book up on the nuances of your next opponent, in short, have every feature, and more, used by the masters in preparation for international tournaments.

The power to really play...

● The game playing algorithm of the Complete Chess System is the result of ten years of development of an intelligent beta-type search strategy. The current chess program paradigm is for fast brute-force alpha-type search algorithms. the Complete Chess System uses a more human style of search which tries to radically reduce the number of positions looked at by the application of human intelligence. The development of such a search strategy is difficult to program and, in its infancy, gives substantial errors and failures until it matures, challenges and then overtakes the brute-force programs.

The Complete Chess System algorithm is now through this maturing stage and we can guarantee substantial chess playing strength together with a far more interesting playing style... you need play against a brute-force monster no longer.

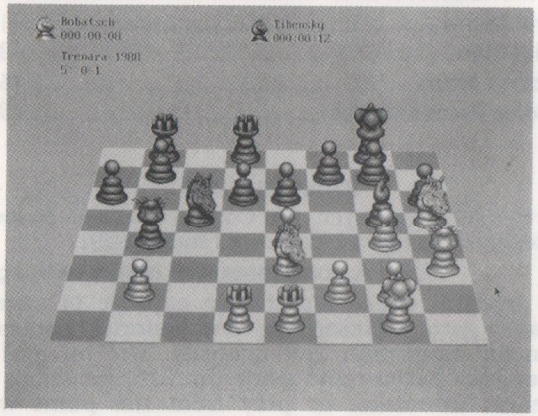
The Complete Chess System's predecessor appeared in official chess rating lists with an English chess rating ELO grade of 2243 (equivalent American ELO of 2343, German ELO 2083, English BCF 206 - on 486 PC at 33 MHz with 4 Mbyte RAM). This version has been substantially improved and it is expected that its official ELO will be increased accordingly.

Convenient, friendly, accessible...

● The Complete Chess System has an opening library of 300,000 moves stored in such a way that you may take control over the type of opening variation chosen by the program, as well as add opening lines of your choice to the library. The Complete Chess System gives you total control over its playing strength. A special range of easy levels is provided to assist beginners in learning the game. Suites of integral chess problems allow you to monitor your progress over time.

Designed for the serious player...

● The Complete Chess System is the ideal partner for beginner and expert alike. All standard features are integral to the program, take-back, save, load games, thinking on your time, point-and-click interface, war-room information displays and a complete understanding of all the rules of chess, as well as the powerful and unique database feature.



Loading and Hard Disc Installation

Note that minimum system hardware requirements are shown on the program format sticker on the Complete Chess System box. Please ensure that you have sufficient machine RAM and/or hard disc space before attempting the load or installation procedures.

IBM PCs and Compatibles PC

The Complete Chess System must first be installed to hard disc.

Insert the floppy into drive A, then type

```
A:
INSTALL
```

The Complete Chess System will then be installed into a directory called CCSYSTEM on drive C:.

Once the installation has been completed, the Complete Chess System can be run by typing:

```
C:
CD \CCSYSTEM
CHESS
```

If you have insufficient memory (manifested by inability to load, program failure, memory error message) then this is most likely to be an out of memory problem, probably caused by the presence of device drivers, TSR's or other programs previously loaded into the computer's memory which are still resident. Try removing any TSR's from your CONFIG.SYS or AUTOEXEC.BAT files and re-booting. Try loading with the command CHESS /CGA to force the program to use CGA mode which is not as memory hungry.

Extra documentation, not available at the time of printing this manual, may be obtained by typing:

```
C:
CD \CCSYSTEM
TYPE README
```

Copy Protection

Unlike most entertainment software, the Complete Chess System may be easily copied to another floppy disc, or to a hard disc. However, to prevent the use of unauthorised illegal copies, on loading you may be asked for a specific word from a particular place in this manual. On entering the correct word the program will run.

We strongly recommend that you make a back-up copy of the program discs (using the normal disc-copying procedure for your machine) and keep the originals in a safe place. Before backing up your master discs be sure to set the master disc write-protection, to prevent accidental damage.

Our Guarantee

In the unlikely event that your master disc(s) fails to load please return **the disc(s) only** with a clear description of the problem to:

Technical Support, Oxford Softworks, Stonefield House, 198 The Hill, Burford, Oxfordshire OX18 4HX, England.

Quick Guide for those with Documentation phobia

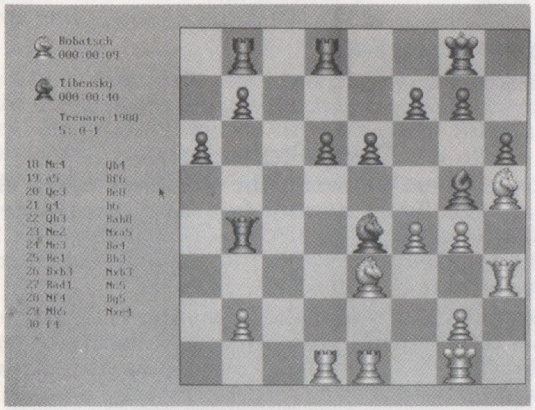
Moving Pieces

You will see a normal mouse arrow. Use the mouse to position this over the piece you want to move and click once. You can now move the piece to the desired destination square. Click again on the mouse button to drop the piece on the square. If the move is a legal one, you'll get the mouse arrow back again.

If you pick up a piece and change your mind about moving it, just move it back to its original square and click once.

You may also type moves in from the keyboard, using algebraic notation, for example `E2E4`.

There is also a special fast way of using the mouse to move pieces, described in the *Fast Move* section of this manual.



Special Moves

Castling	just make the king move, the Complete Chess System will move the rook for you.
En Passant	just move your pawn to its destination square (one behind the pawn you are capturing "in passing").
Promotion	if your pawn reaches the opposite end of the board the Complete Chess System will query you for promotion to Queen, Rook, Bishop or Knight.

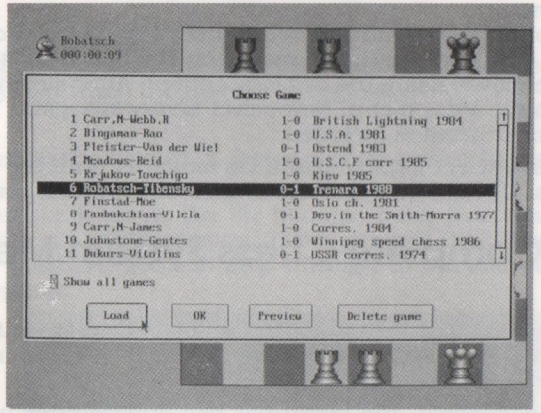
Set Time, *Take Back* and many other features are available from the menu.

Database Tutorial

Preview

Firstly, select *Supervisor* from the *Control* menu, this will give you full control over move input.

Select *Open Database* from the *Database* menu, and then select `DEMO.CHG` from the file selector dialog box. When the *List Game* dialog opens, click on the first game to highlight it and then click on the *Preview* button. You will be presented with a move list and a chess board. By clicking on a move in the move list (or by moving around using the cursor keys) you can get a quick overview of the game.



Comments and Variations

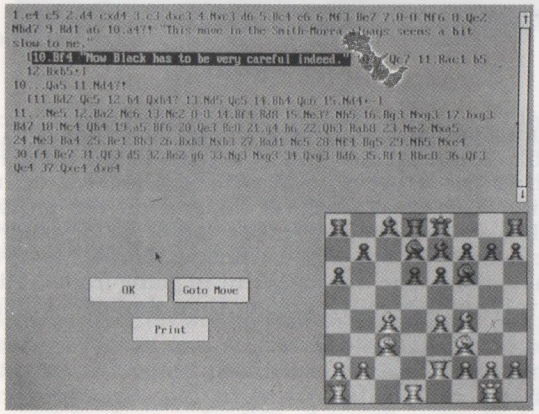
When finished, exit the overview by selecting the *OK* button and, from the *List Game* dialog, highlight the second game and then click on the *Preview* button. You will be presented with a game with comments and variations. The variations from the main line are contained within square brackets **[ ]** and you may again move around the game and its variations using the mouse or cursor keys. Exit the overview when finished.

Loading a Database Game

Select the first game again from the *List Game* dialog and click on the *OK* button. The first game is now loaded and you will see the players names, the move list and the final game position. Use *Replay* from the *Control* menu to get back to the start of the game and the left/right/up/down cursor keys to move around the game.

Adding Comments

Go to the start of the game with *Replay* and then forwards one move with the right cursor key. Select *Game Comment* from the *View* menu. Type '`this is a comment`' into the dialog box and click *OK*. The comment will appear on the *Status Line*. Now select *Overview* from the *View* menu. You will see the same game overview as before, except that your comment now appears. Exit the overview.



Adding Variations

Go forwards another move with the right cursor key. Select *Start Branch* from the *View* menu. Play out a series of moves on the board (or get the program to play out some moves using the *Self Play* option). After say five moves select *End Branch* from the *View* menu. Now select *Overview* again. You should see the game with your variation included.

Exit *Overview* and select *Replay* again. Go forwards until the *Branching Line* dialog box opens. Use this to select the branch down which you wish to go.

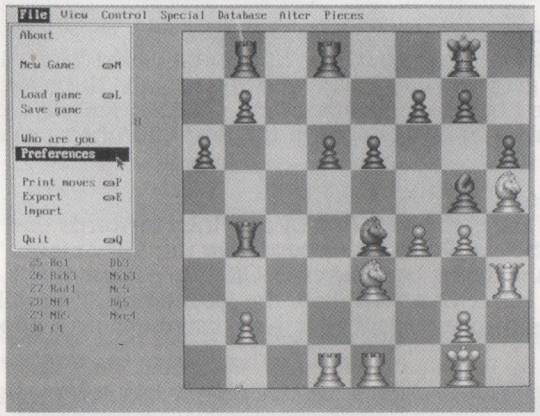
The Complete Chess System Menus

PCs

To access the menu, move the mouse to the top of the screen for the menu to appear. Items may be selected by moving the mouse over them and pressing the left button.

If no mouse is connected, the menu bar will appear after pressing *F1* and items may be selected by using the cursor keys and pressing *Return* when the required item is selected. In general the mouse pointer may be moved using the cursor keys, with the *Insert* key emulating a left button and the *Del* key the right button.

The keyboard shortcuts for various menu items are shown alongside them in the menus.



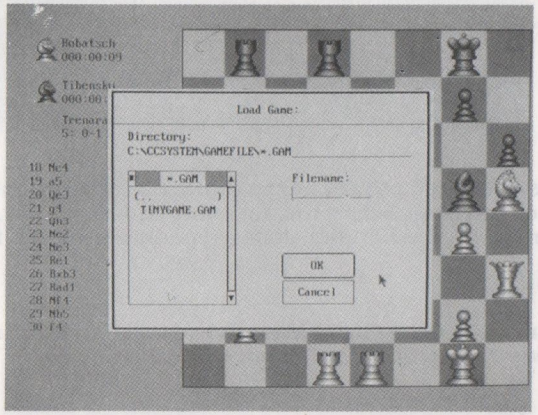
File Menu

About...
Displays some information about the program, together with the size of the transposition table. A transposition table is used to *substantially* increase the playing strength of the program and will be allocated on machines with sufficient memory. The exact size will depend on the particular machine configuration. The critical improvement factor is whether the available memory is large enough to support a transposition table at all rather than the size of the table itself. The improvement in going from 0 Mbyte to 1 Mbyte of transposition table is very much greater than that of going from 1 Mbyte to 2 Mbyte.

New Game...
Starts a new game. You may wish to *Save* the old game first as its record in memory will be lost when the new game begins.

Load Game...
Any game saved in the GAMEFILE folder may be loaded to display the starting chess position.

From the GAMEFILE folder in the file handler dialog box, double-click on any saved game with a .GAM extension. The game will then load presenting you with the start position, you can step through to the end of the game using the *Forwards* option.



Save Game...
Saves the current game to disc for later review. Note that you do not just save the current position, but the full move history, allowing complete replay of the game. Select the GAMEFILE folder as above and type in a suitable filename with a .GAM extension.

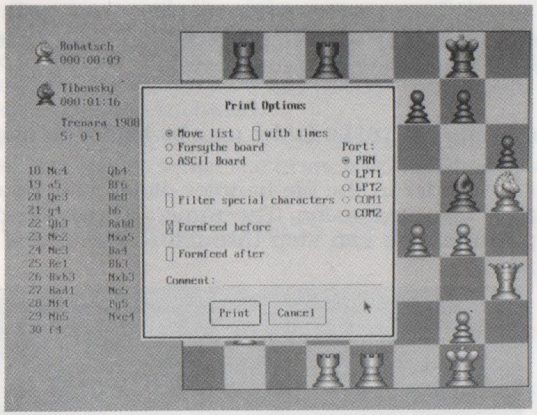
Note that you would be more likely to use this method of Save/Load for a game which you wanted to save halfway through in order to take up again later. Games which are for permanent record would be better saved using the *Database* functions.

Who Are You...
Personalizes the display by changing the player's names.

Preferences...
It is possible to remember the current options in a special .Preferences file on disc. These preferences will then automatically be used next time you load the program.

The options recorded are: 2D/3D display; Orientation; Sliding; Touch & Move; Fast Moves; Intuitive; Book Control (all settings); Palette; Coordinates; Learning; Thinking; Who Are You; The current piece set.

Print Moves...
The move list and/or position will be sent to the printer. Use the dialog box to select the possible print options. It is possible to send the move list (with or without move times), the board position in Forsythe notation or ascii or as a graphic to the various supported hi-resolution printers. Ensure that the correct printer port is chosen, for PC's this will normally be PRN. A header comment may also be added if required.



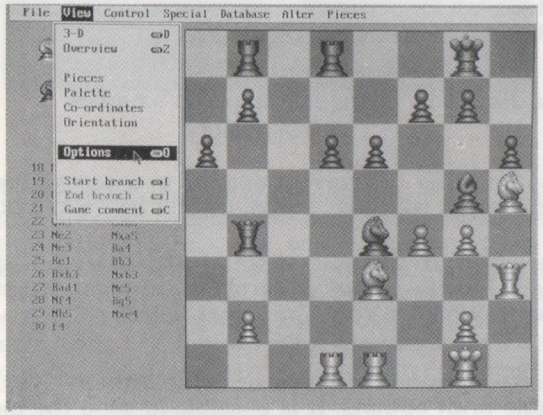
Export...
Export moves lists and/or position data to file for subsequent processing by word-processor or printing. Select the data you wish to export, then, from the GAMEFILE folder in the file handler dialog type in a suitable filename with a .DAT extension.

Import...
Imports position data from file. Please be careful that you are loading a previously *exported* .DAT file of the appropriate type.

Quit...
Returns control to the operating system.

View Menu

3D / 2D...
Flips between the two-dimensional and three-dimensional board views.

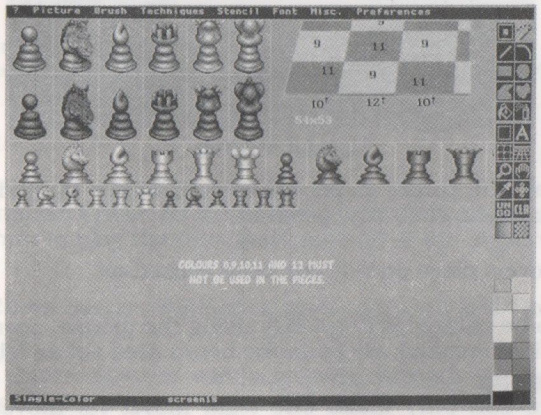


Overview...
This feature will prove invaluable to the serious player, who will be able to view an entire game, its history, any comments and branching variations on one screen and to move around the game (and its variations) using either the

mouse or cursor keys. Use the *OK* button to return to the main board display. The *Goto Move* button returns you to the main board at the currently selected move.

Pieces...
Chooses from any alternative piece sets. For clarity piece set filenames have the extension .SET and contain either VGA, EGA or CGA within the filename.

Designing your own piece sets
You will need to have access to a suitable paint program such as DPAINT(TM). In the GRAPHICS folder you should find a suitable .LBM file (eg. one with the VGA, EGA or CGA characteristic suitable for your hardware). Use DPAINT to modify the piece data to your wishes but ensure that you keep the size of the pieces within the box outlines shown. Save your work as MYVGA.LBM or some other suitable filename of your choice.



In the CCSYSTEM root directory you will find a program PIECECVT.EXE. This converts the .LBM file into a .SET file suitable for use within the chess program. It is left to the user to ensure that the appropriate files are placed in their appropriate directories. Use PIECECVT as follows:

```
C:
CD \CCSYSTEM
PIECECVT                              ; gives explanation on usage

PIECECVT 16 MYVGA.LBM MYVGA.SET       ; converts your VGA file
```

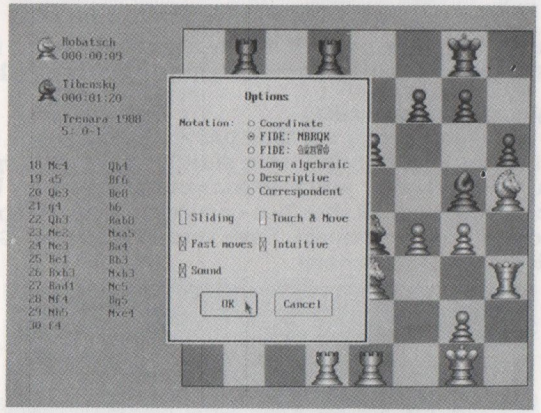
Palette...
Changes the colours of the pieces and board.

Coordinates...
Shows (or hides) the standard algebraic chess coordinates on the 2D chess board.

Orientation...
Selects the direction from which you wish to view the board.

Options...
Use the dialog box to set many type of display and user input options.

Move list
Selects from the standard international methods of displaying moves - Coordinate, FIDE, Long algebraic, Descriptive or Correspondent.



Sliding
Controls the way the pieces move on screen; either by sliding, or simply jumping immediately to their new position.

Touch & Move
Forces you to move a piece once it has been clicked on.

Fast Moves
Allows moves to be entered very quickly using the mouse, normally only with a single click. When enabled, clicks in the board area act as follows:

Click on a piece
If the piece can only make one legal move, its move will be made automatically. If it can make more than one move then it will be picked up and you should then click on its destination square, just like the normal method of move entry.

Click on an empty square
If only one of your pieces can move to that square, it will do so automatically. If more than one piece can move to the square the destination square will be highlighted and the Complete Chess System will wait for you to click on the piece to be moved. If you change your mind, click somewhere that is illegal, or press any key.

Intuitive
This is an extension of *Fast Moves*, described above, and is only available if *Fast Moves* have been selected.

When a square has been highlighted because more than one piece can make the move, as described above, the Complete Chess System will intuit the most likely piece that can move to the square, highlighting the most likely origin square. If you agree with the Complete Chess System's intuitive choice, just click again on the destination and the move will be executed. If you disagree, click on the desired origin piece which will then move to the destination. If, after the first click you decide to make a different move, just click anywhere on the screen that is not valid, or press a key.

Sound
Enables a warning sound to accompany each move.

Start branch...
The Complete Chess System uniquely allows for the storage and retrieval of separate lines of play. Imagine the chess game as a tree. The main variation or line of play is the tree trunk and the other possible variations are the branches. *Start branch* tells the program that we are about to enter a branching line. You can use this feature to annotate a game yourself (use *Supervisor* mode), or, interestingly, to ask the Complete Chess System to annotate itself (use *Self Play* mode).

Note that this feature is only enabled after *Take Back* of a move. It would not make sense to start a branch at the end of a line of play where there is, by definition, no main line continuation to branch from.

End branch...
Terminates a branching line and returns to the main variation.

Comment...
Allows some commenting text to be associated with the current move. Branches and comments may be easily viewed using the *Overview* option.

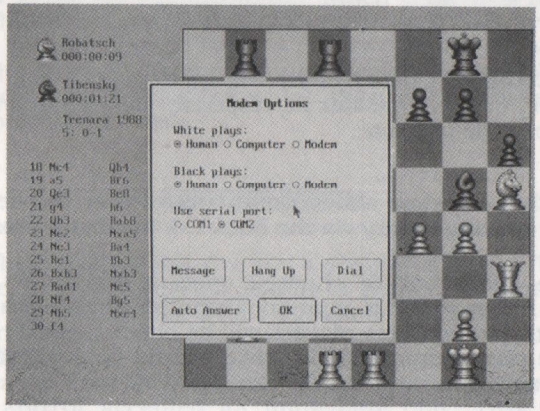
Control Menu

Swap Sides...
Makes the Complete Chess System start a game as white, for example. It forces the program to play the next move instead of the player.

Self Play...
The Complete Chess System will play a game against itself. De-select to stop.

Supervisor...
The Complete Chess System will supervise human versus human play allowing only legal moves.

Modem...
Allows the Complete Chess System to be used remotely by telephone. This option is likely to be useful to correspondence or postal chess players. Full auto-answer is accommodated. You will need to be connected to the outside world via modem to use this option and to have some knowledge of the use of this kind of hardware.



From the Modem dialog box you may select the black and white player types (program, human or modem), the serial port used, and send text messages or various special modem control messages.

At the time of writing other Modem compatible chess programs include BattleChess, BattleChess 4000, Checkmate and Chess Champion 2175. Oxford Softworks modem protocols are available to other *bona fide* chess developers on request.

Move Now...
Interrupts the Complete Chess System's thinking and forces it to play its best move found so far.

Forwards...
If you have loaded a stored game from disc, or have taken a move back, this will allow you to step forwards one move at a time in the computers memory of the game. Note that the cursor keys may be used as shortcuts.

If there are branching variations available you will be requested to specify your desired path.

Replay...
This will return to the start of the game, allowing you to replay it using the *Forwards* option.

Automatic...
Plays *Forwards* automatically until stopped by the ESC key.

Take Back...
This takes back one move. You can take back as many moves as needed until the start of the game if you so wish. Please note that *Take Back* also has the effect of *Swap Sides*. This is both intentional and sensible.

Beginner...
If selected, this will set the program options to a form suitable for beginners.

Learning...
If selected, the Complete Chess System will add moves it considers strong to its opening library. This learning process through library extension takes place after the result of the game is known and the Complete Chess System will firstly ask you if you would like the opening added to the library. Upon confirmation the opening moves will be added to the MOREBOOK.TXT file in the BOOKDATA folder.

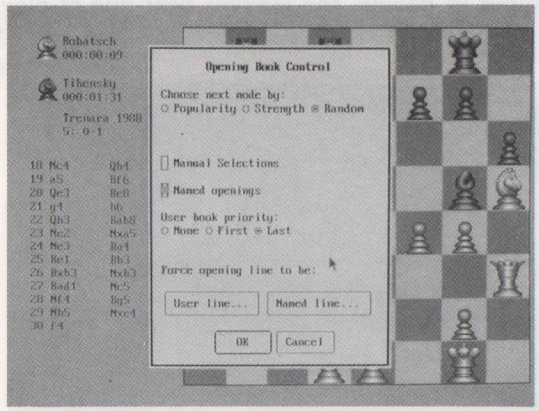
Thinking...
If selected, the Complete Chess System will try to predict your next move and use your thinking time to consider its response. De-selecting may be used a means to handicap the program.

Book Control...
The Complete Chess System allows great control over the decision-making processes of the opening library via the *Book Control* dialog box.

Popularity
Adjust the slider bar to chooses opening moves by 'Common' or 'Unusual'. If the slider is near to 'Common' then openings currently popular with strong chess players will be chosen, conversely, 'Unusual' will choose rare openings. This mode should be selected when testing the program.

Strength
If the slider is near 'Best' then strong opening moves will be chosen, move the slider closer to 'Random' to introduce some randomness into the selection of an opening.

Random
Chooses entirely at random from the opening library.



Selecting *Named Openings* prompts the program to announce the type of opening during play (openings are classified in romantic English notation for this purpose).

You may also override the above selections by forcing the program to play a *Named Line* (again, romantic English notation is used). *User Line* may be used to force an opening line entered in coordinate notation. If the opening so specified runs out or is deviated from in play then the normal opening library will take over as above.

Alternatively, if *Manual Selection* is selected the program will present you with a dialog box, each time it is to move, which allows you to manually select from each of the possible listed opening moves available.

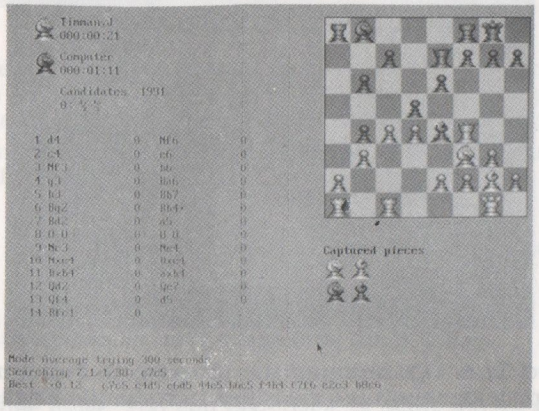
Finally, you may extend the opening library using the user book. In the BOOKDATA folder is the file USERBOOK.DAT which is an ascii file of openings. You may edit this file using a word processor and thus create your own opening library, but, be sure to keep to the text format of the file, you may fatally corrupt the program if you introduce garbage into this file. There is an option in the *Book Control* dialog box which allows you to make the user book take priority should you so wish.

Special Menu

Hint...
The Complete Chess System will give you a suggested move. This option uses the result of the previous program search to generate a hint. There can be some occasions, therefore, when a hint will not be available.

? (Keyboard Only)...
Typing a ? character from the keyboard will give you a suggested move which can be edited and/or accepted for immediate play. This feature is only available when it is your turn to move.

Show Info / Show Board...
This flips between the Board display and the war-room information screen display. The information screen shows a Small Board, Tournament Clocks, showing the total time used in the game, the Move List and Move Time, in seconds, taken for each move. For the current move being considered the Time, in seconds, for which the Complete Chess System is trying to keep to, the score, measured in pawns, the current best-line-of-play and the move that is currently being considered. A positive score indicates that the program thinks it is winning.



Your Grade...
This unique feature gives you an assessment of your chess grade on the internationally recognised ELO scale. You are presented with a test suite of twenty four chess positions, for each of which you will need to suggest up to four candidate moves.

On the basis of your replies the Complete Chess System will estimate your current grade. You should allow yourself about two minutes per position.

During *Your Grade*, the *Intuitive Move* option is disabled, though *Fast Move* is still available.

At the end of the test your estimated ELO grade is displayed with a summary of the moves chosen and the correct moves for the unsolved positions.

A total of five sets of test suites are supplied. If you can avoid memorising the solutions then the number of test suites should be enough for you to measure your progress over time.

My Grade...
For your interest the Complete Chess System may also be set to solve any of the test suites. How well the program performs will depend on the hardware in use and the time level currently set.

Goto Next...
This is available only when *Your grade* or *My grade* are selected. It skips the current position.

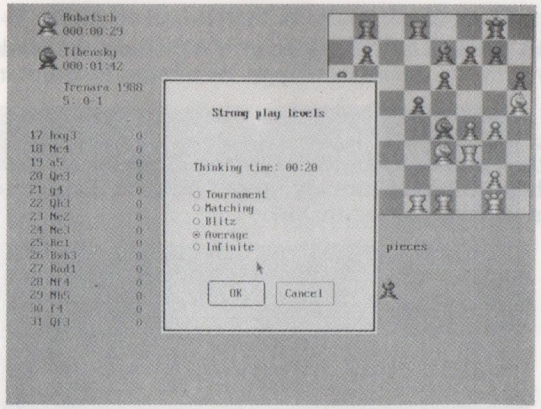
Terminate...
This is available only when *Your grade* or *My grade* is selected. It abandons the grading assessment and starts a new game.

Set Time...
Sets the Complete Chess System's level of play

Weak Opponent
You can select from ten separate levels. These levels are most suitable for complete beginners.

Level 1 plays legal chess moves selected virtually at random, rather like playing coffee-house chess. If you can't win against this .....

Level 10 plays the best available move found without using any search look ahead. The intermediate levels have a greater or lesser chance of playing random moves.



Strong opponent
The Complete Chess System plays at full strength. You should enter the average time (in minutes and seconds) you would like the program to play each move. There are four play modes to choose from:

Tournament
This is the strongest level, and the Complete Chess System averages out its time for each move according to its time spent so far in the game. It will play its moves as if there was a time control at move 40 and then at every 20 moves thereafter. It will vary its move time each move, playing some faster and some slower than the time allowance, according to the difficulty of the position, but with the intention of reaching the time control at move 40 with time to spare.

Average
The Complete Chess System will try to stick to the selected move time for every move.

Matching
The Complete Chess System will spend roughly as long thinking about its moves as you spend thinking about yours.

Infinite
The Complete Chess System will think indefinitely, until you interrupt its thought by selecting *Move Now*.

Set Clocks...
This allows you to adjust the tournament clocks. To avoid confusing the time controller the appropriate dialog box will appear at the start of the next move.

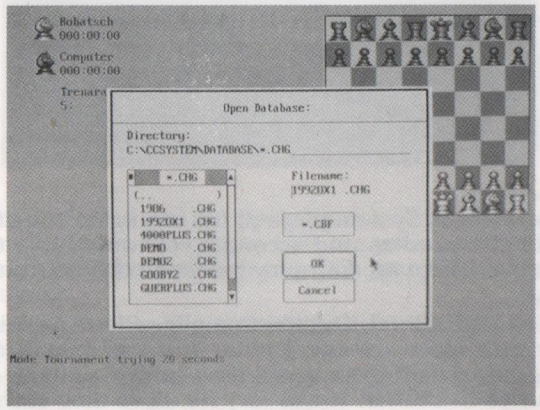
Set Draw...
By default, the Complete Chess System treats drawn positions as equal. This feature allows you to use a strategy often favoured in tournament play. You may want the program to avoid draws at all costs (select *Draw=Lose*), or you may want to set the program to play for a draw (select *Draw=Win*). Various permutations of these extreme positions are catered for.

Pause...
This allows you to pause the game and temporarily halt the timers.

Database Menu

New Database...
Presents you with the DATABASE folder in the file selector dialog box offering to create a new, empty database. Type in a new file name with a .CHG extension.

Open Database...
Presents you with the DATABASE folder in the file selector dialog box offering to open one of the databases already stored on disc. Double-click on one of the database files with a .CHG extension.



Close Database...
Closes the current database. It is good practice to close such files before quitting the program.

Note that *Close Database* does **not** save any modifications you may have made. *Game -> Database* and *Build Database* are the only database functions that modify the data stored on your harddisc.

Database Info...
Gives editable information on the current database.

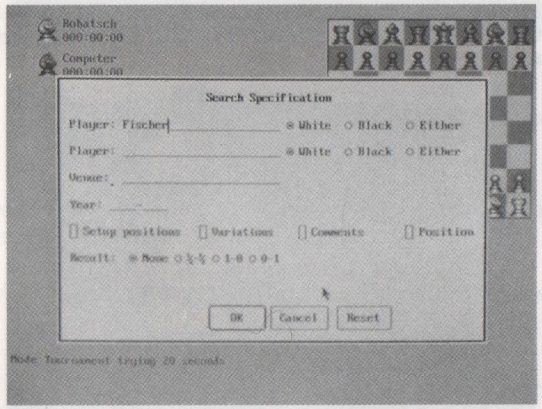
List games...
Lists the database games for *selection*, *preview* or *deletion*. *Preview* is similar to the *Overview* feature in the *View* menu and allows an overall and faster game view. The *Delete* option will 'grey out' or, if already 'greyed out', reselect a game. 'Greyed out' games are only deleted from the harddisc when the *Build Database* function is applied.

Next game...
Loads the next game in the database.

Search specification...
Allows you to set up selection criteria to find particular games within the database. For example games where Fischer plays the white pieces and wins.

You will often find chess player's names spelt in different ways in the many databases on offer. To deal with this problem *wildcard* characters are permitted in the search mask and the case of characters is ignored. A question mark **?** stands for any character and ***** stands for any string of characters. **Fischer** would be found with **Fischer, fischer, ??sch??, f?s***

Games which are de-selected are 'greyed out'. The *Delete* function in *List Games* can also be used to select and de-select games.



Note that changes to the *Search Specification* will re-select any games which have been selected for deletion.

Use specification...
Toggles the above *Search Specification* criteria on and off.

Note that changes to the *Search Specification* will re-select any games which have been selected for deletion.

Game -> Database...
Adds the current game to the current database. There are two possibilities:

(i) This is a game which was loaded from the database and which you have changed in some way. This game information will overwrite the previously stored game information.

(ii) This is a new game. This game information will be appended to the database file.

Note that *Game -> Database* and *Build Database* are the only database functions that modify the data stored on your harddisc.

Build Database...
Saves the current database (according to the *Search Specification* and *Delete* function). When presented with the file selector dialog you should select the DATABASE folder and either type in a new filename with a .CHG extension or double-click on an existing .CHG file. There are three possibilities:

(i) If you typed in a new filename the database will be saved to that file.

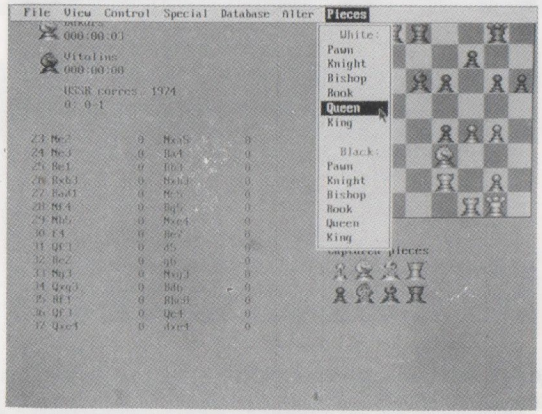
(ii) If you selected the currently selected database file then the old database information will be overwritten by the currently specified database information. For obvious reasons you should beware of carelessly using this procedure.

(iii) If you selected another existing database then the current database information will be appended to the selected database.

Note that *Game -> Database* and *Build Database* are the only database functions that modify the data stored on your harddisc.

Alter and Pieces Menus

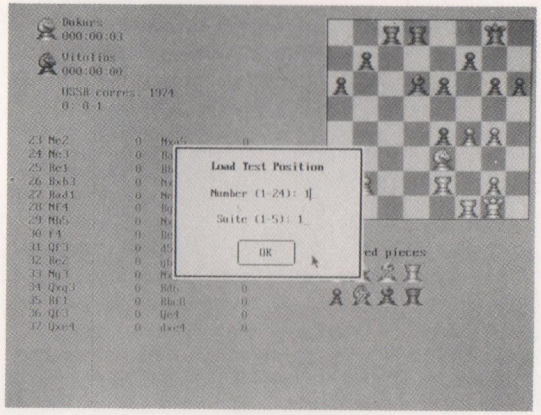
Setup Board...
Activates the *Alter and Pieces* menu items thus allowing the modification of the position for the setting up of a problem or the handicapping of a game by removing the Queen, for example.



Finished Setup...
When the *Alter* session is complete, use this option to prompt for which side is to move from the altered position and return control to the main chess program. Various illegal chess positions (king in check, curious number of kings etc.) are tested for at this stage to prevent return of an invalid position to the main program.

Clear Board...
Removes all pieces from the board.

Load Test Position...
Loads any one of the test positions used for ELO grade testing.



Delete Piece...
The mouse will turn into a cross-hair and will delete any piece that is then clicked on.

Pieces menu...
Pieces may be added by selecting the colour and type from the pieces menu and then clicking on the required board square.

Additionally pieces may be picked up from the board and moved around.

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