QUADCHESS®

The Ultimate Challenge

User's Guide

Release 1.0

August 1997

QUADRIGA
Telemática e Comunicações
www.quadriga.pt

Quadriga – Telemática e Comunicações, Lda

Software License Agreement

QUADCHESS®

Subject

This Software License Agreement is a legal agreement between the buyer of the license (**"the user"**) and Quadriga –Telemática e Comunicações (**"QUADRIGA"**). The *QUADCHESS*®, developed by QUADRIGA, is the subject of this agreement and will be identified as "software" hereafter. Should the user not agree entirely with the contents of this agreement, the software and all related materials should be returned promptly and in the original conditions to QUADRIGA or the retailer that sold the license.

Ownership

This software is the sole and exclusive property of QUADRIGA. By buying the right to use this software, the user does not become the owner of the software, but will have the right to use the software in accordance with this Agreement.

License

The user is granted the following rights to the software:

- *__Right to Install and Use__*. The user may install and use the software on a single-user computer. Use in multiple computers will require a specific multi-user license from QUADRIGA.
- *__Right to restricted copying__*. The user may make one copy of the software for backup and archival purposes only. Any other copies will represent a violation to the copyrights owned by QUADRIGA.

The user may not:

- Disassemble, decompile, reverse engineer, or in any manner decode the software for any reason.
- Copy, loan, lease, rent, sell, or otherwise use the software except as expressly stated in this Agreement.

Limited Warranty

QUADRIGA makes the following limited warranties, for a period of ninety (90) days from the date of the signature of this agreement:

- *__Media__*. The disks and documentation supporting the application will be free from defects in materials and workmanship under normal use. If the disks or the documentation fail to conform to this warranty, the user may, as its sole and exclusive remedy, obtain a replacement free of charge by returning the defective disk or documentation to QUADRIGA.
- *__Software__*. The software delivered to the user will materially conform to the documentation that accompanies it. If the software fails to operate in accordance with this warranty, the user may, as its sole and exclusive remedy, inform QUADRIGA of the specific problem occurred, and QUADRIGA will provide a new version of the software correcting the problem.
- *__WARRANTY DISCLAIMER__*. QUADRIGA DOES NOT WARRANTY THAT THIS SOFTWARE WILL MEET THE USER'S REQUIREMENTS OR THAT ITS OPERATION WILL BE UNINTERRUPTED OR ERROR-FREE. QUADRIGA EXCLUDES AND EXPRESSLY DISCLAIMS ALL EXPRESS AND IMPLIED WARRANTIES NOT STATED HEREIN, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTIBILITY AND FITNESS FOR A PARTICULAR PURPOSE.

Limitation of Liability
QUADRIGA'S LIABILITY TO THE USER OF THE SOFTWARE FOR ANY LOSSES SHALL BE LIMITED TO DIRECT DAMAGES, AND SHELL NOT GLOBALLY EXCEED THE AMOUNT THE USER ORIGINALLY PAID FOR THE SOFTWARE. IN NO EVENT WILL QUADRIGA BE LIABLE TO THE USER FOR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES (INCLUDING LOSS OF PROFITS) EVEN IF QUADRIGA HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Termination
This license and the user's right to use the software automatically terminate if the user fails to comply with any provisions of this Agreement. Upon termination, the user will either destroy or return to QUADRIGA all copies of the software and documentation, otherwise, the restrictions on the user's rights will expire upon expiration of the copyright to the software.

The license will also be terminated if the user destroys the software together with all copies and documentation.

Other Provisions
This Agreement will be governed by and construed in accordance with the substantive laws of Portugal. This is the entire Agreement between QUADRIGA and the user relating to the software and its documentation, and supersedes any prior communications or representations concerning the software. No change or modification of this Agreement will be valid unless it is in writing and signed by legal representatives of QUADRIGA and the user.

TABLE OF CONTENTS

Chapter 1 - Introduction

About *QuadChess*

Welcome to **QuadChess**, with which we are confident that you will have many additional hours of enjoyment from your Nokia 9000 Communicator. Whether you're a chess beginner or a regular pro, you'll find that **QuadChess** is entertaining, at every level.

QuadChess has been developed so that it can be played a number of ways. To begin with, you can play against the machine, very useful when you are on a trip and on your own. You can challenge your friend to a match and best of all it doesn't matter if they're beside you or on the other side of the world, you can play by using the SMS (Short Message System) chess match facility. You can even put the Nokia 9000 against itself, so you can study its favourite moves.

It is also possible to create a number of user defined boards where you can create the start positions of a game, to study particular final plays, different tactics or strategies.

About Quadriga and the NOKIA 9000 Communicator

Of course you are already familiar with the Nokia 9000 Communicator, a real breakthrough in mobile telecommunications. Quadriga has been developing other interesting applications for the Communicator. You can search our web site, at www.quadriga.pt, for further details.

About You

You don't have to be a chess champion to have fun with **QuadChess**. However, since this manual does not provide you with a full tutorial you should be familiar with the rules of chess.

Nevertheless, you can find a summary of chess rules in Chapter 8, and if you wish to study the game in more detail, please consider reading one of the many books available about chess for beginners.

Moves notation

QuadChess uses the same notation for representing the moves that you will find in most chess publications. It is called **algebraic notation**.

The following table presents the letters used to represent each piece.

Piece	Representation
Pawn	no letter
Rook	R
Knight	N
Bishop	B
Queen	Q
King	K

Table 1: Representation by letters.

Appended to the above letters, you will often find the following additional symbols:

Symbol	Meaning
x	Piece captured
:	Promotion
+	Check
++	Check mate

Table 2: Additional symbols in moves.

You can also find a representation for castling:

Representation	Meaning
0-0	Castling the king's side (see Chapter 8)
0-0-0	Castling the queen's side (see Chapter 8)

Table 3: Castling notation.

The next table depicts some examples of moves representations.

Move	Description	Explanation
1	d4 Nf6	In the first move, the player with the white pieces moves the pawn from d2 to d4. You may infer the movement from d2 since it is a pawn. Only when there are different possibilities for the first cell it will be indicated explicitly. The player with the black pieces then responds by moving the knight from g8 to f6.
6	dxc5 Qa5	In the sixth move, the whites capture a piece from the opponent, by moving a pawn from column d to c5; the blacks reply by moving the queen to a5.
11	0-0 Bxf3	In the eleventh move, the whites castle king's side; the blacks move the bishop to f3, capturing a white piece.
13	Nd5 Qc5+	In the thirteenth move, the whites play the knight to d5; the blacks answer moving the queen to c5 and producing a check.
20	Bc4 0-0-0	The whites move the bishop to c4; the blacks choose castling the queen's side.
34	E8:Q Qc6++	The whites move a pawn to e8, promoting it to a queen; the blacks move their queen to c6 producing check mate.

Table 4: Examples of chess moves.

How *QuadChess* plays against you

If you choose to play against the Communicator, you will probably find that your opponent plays some strategically and tactically "well thought out" moves.

Before **QuadChess** performs a move, all alternatives are evaluated, until the time pre-set by the game level (M1, G1, G2...etc.) is over.

The possible positions are calculated according to several factors. In the beginning of a game, **QuadChess** will take into account how many of its pieces have already moved, if the king is in a safe place and if the pawn structure is adequate, to mention only a few. In the middle of the game, if there is an opposite castle, there will be a bonus for solutions attacking that castle. Additionally, there will be penalties for pins, bonus for double rooks, knights in an outpost, and more. As the game reaches the end, specific approaches will be used.

QuadChess also uses a built in reference containing the most used openings of chess. Therefore in the beginning of a new game, **QuadChess** will choose - whenever possible - its solutions from this book. That is why you will notice that the first couple of moves is usually performed faster.

This will give you some insight about how **QuadChess** plays. Do you think it will be enough for you to win?

Installing *QuadChess*

You will find the following files when extracting the zip file:

- `chess.geo`
- `chess___.000`
- `chess.ins`
- `book.hsh`

The NOKIA 9000 Communicator comes with a disk containing the software by which a PC may act as a server for the Communicator's Install/Remove software application.

1. If `Nserver` is not installed, run the program called `Server` on the floppy disk to install `NServer` onto the PC;

2. Place `chess.geo`, `chess___.000`, `chess.ins` and `book.hsh` under the `NServer` directory;

3. Run `NServer` to turn your PC into a server for the NOKIA 9000 Communicator. This program monitors one of the PC's COM ports, so make sure that it is monitoring the right port - you may need to check its settings;

4. After the connection is made between the PC and the Communicator, run the Install/Remove software application on the Communicator, and press Install. You will find a description for the available applications. Then select *QuadChess*.

Starting *QuadChess*

To start *QuadChess*, select it from the Communicator's Extras application group and press **Select**. If another Extras application is active, you must close it by pressing **Close** in the application's main view before you can start *QuadChess*. On-line help about the game is available in the Communicator. Just press the **Help button** in any view and context-sensitive help will be displayed.
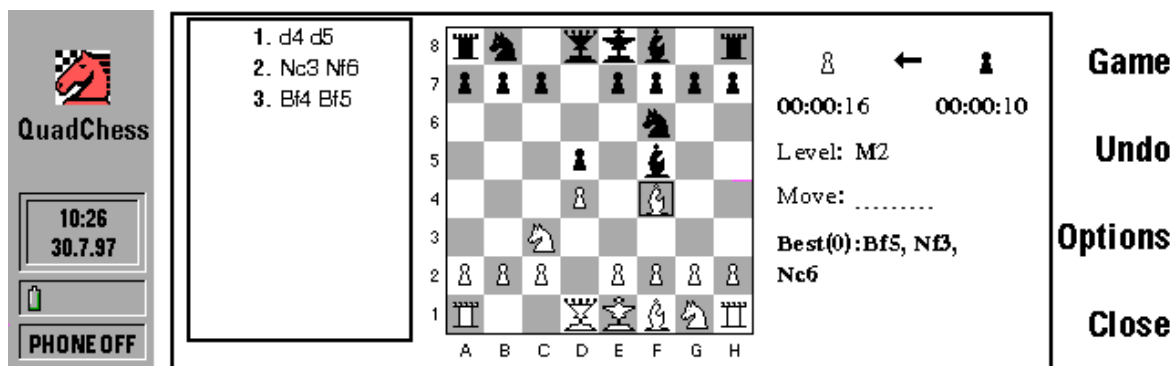
Figure 1: Main screen.

The area to the left is used to list the moves in the notation described previously in this manual. All the moves from the beginning of the game to the last move played will be listed.

The middle section presents the chess board, with the cursor represented by a square frame.

In the area to the right, a number of indicators are displayed, such as the current player (indicated by the arrow), the time elapsed for each player, the game level being played and the best sequence of moves foreseen by *QuadChess*.

A move is produced by selecting the starting and ending cell. For instance, if you want to move your pawn from d2 to d4, move the cursor to d2, press **Enter**, then go to d4 and press **Enter** again[1].

If you are playing against the Communicator, *QuadChess* will start calculating its move immediately on the completion of your move. The time *QuadChess* takes to make its move depends only on the level you selected when you started the new game[2].

You can use the **TAB** key[3] to move the cursor from panel to panel. The initial position for the cursor will be on top of the chess board, in the form of a square frame. If you press the **TAB** key once, the cursor will be shifted to the **Move:** field, on the right panel. Certain players prefer to input

---

[1] Alternatively, you can select d4 first and d2 after. The order is irrelevant.
[2] See Table 5: *QuadChess* game options.
[3] This is the key labelled with two arrows, left to the **Q** key, in the top left side of your keyboard.

their moves in a text form, instead of using the board and the cursor. This field is the place to enter your moves manually, just type your move using the previous algebraic notation. For example, **"d2d4"** will move the pawn from d2 to d4, in an initial move.

By pressing the **TAB** key once again, the cursor will be positioned in the list of the moves made so far (list on the left side). Here, you can scroll up and down to review all the moves since the beginning of the game (notice that the chess board reflects the moves as you scroll up and down.)

By pressing the **TAB** key once more, the cursor will be back on top of the chess board.

In this main screen, each command button[4] is labelled, indicating the action that is produced by selecting that button. In the first screen, the possible commands are:

- **Game –** Includes a new set of commands: **New**, **File** and **Back**;
- **Undo –** Used to undo a move or a sequence of moves;
- **Options –** Lets you specify some game preferences;
- **Close –** Closes the application.

You select a command by pressing the corresponding command button.

Game
Select **Game** to begin a new game or save/load/delete games from the disk. When you select **Game**, these commands will be displayed.
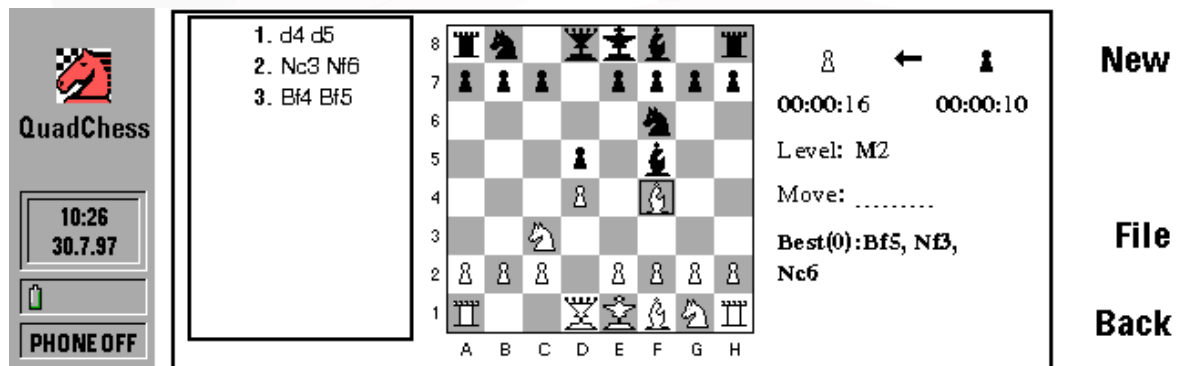

Figure 2: Games menu.

---

[4] The command buttons are the buttons at the right side of the screen.

New

Begin a new game. If you are currently playing a game, a dialog box will ask if you want to quit the ongoing game before saving it.
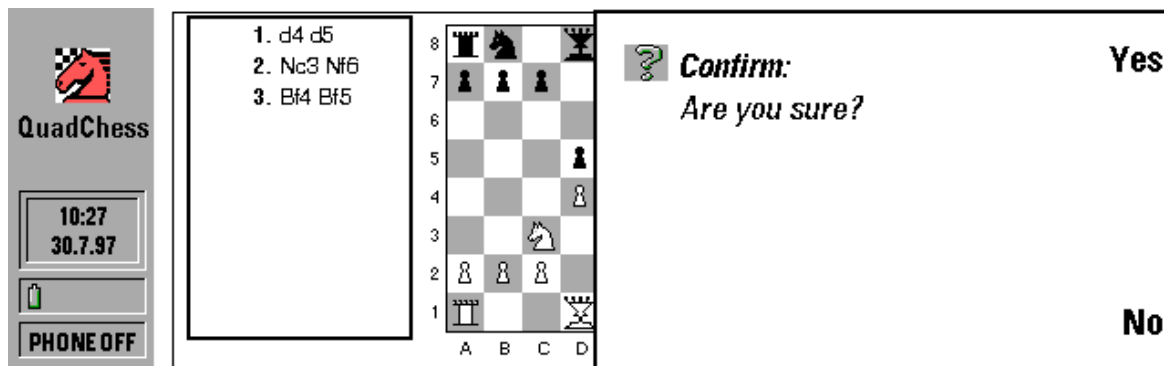

Figure 3: Abandon current game?
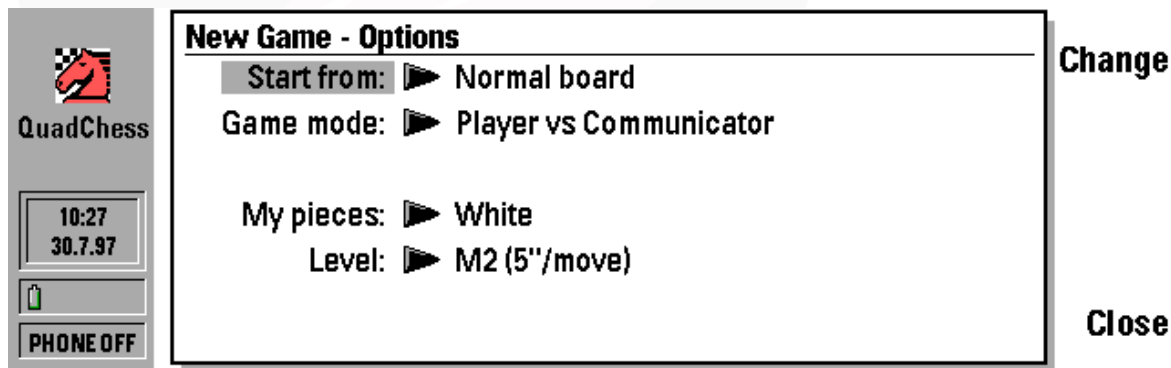
Next, you will have to choose the kind of game to be played.

Figure 4: New game options.

The following table shows the four basic options concerning the type of game.

Option	Description
Start From:	Choose **Normal Board** if you want to start a chess game from the very beginning. Choose **User Defined Board** if you want to start a game from a position defined by you. (See Chapter 3 - User Defined Board). Choose **Library Board** if you want to start from a position in **QuadChess**'s Library. These include many interesting problems for you to solve. Note: only available in future versions of **QuadChess**.
Game Mode:	Here you select the nature of the game and its players: **Player vs. Communicator** – You play against the machine. **Player1 vs. Player2 (same Communicator)** – 2 players will use the same Nokia 9000 Communicator to play the game. **Player1 vs. Player2 (SMS mode)** – 2 players use SMS (Short messages) to play remotely. **Communicator vs. Communicator** – You will see the Nokia 9000 playing on both sides of the board. Useful to learn how **QuadChess** operates and solves chess problems. You will find more information about these different game modes in Chapter 4 - Game Modes.
My Pieces:	**White** or **Black**
Level:	You can choose the game level that will apply in your game against the Nokia 9000. The level is the amount of time that you allow the Communicator to process its next move or the entire game. The level information will also be used in a **Communicator vs. Communicator** game, but not in a **Player1 vs. Player2** situation. The levels available are: **Level M1** – 2 seconds per move; **Level G1** – 5 minutes per game **Level M2** – 5 seconds per move; **Level G2** – 10 minutes per game **Level M3** – 10 seconds per move; **Level G3** – 30 minutes per game **Level M4** – 30 seconds per move; **Level G4** – 2 Hours per game You can also customise your own level by choosing **User Defined Level** and selecting the exact time per move or game.

Table 5: *QuadChess* game options.

File

Lets you **Save** the current game, **Load** a game from disk or **Delete** games from disk.
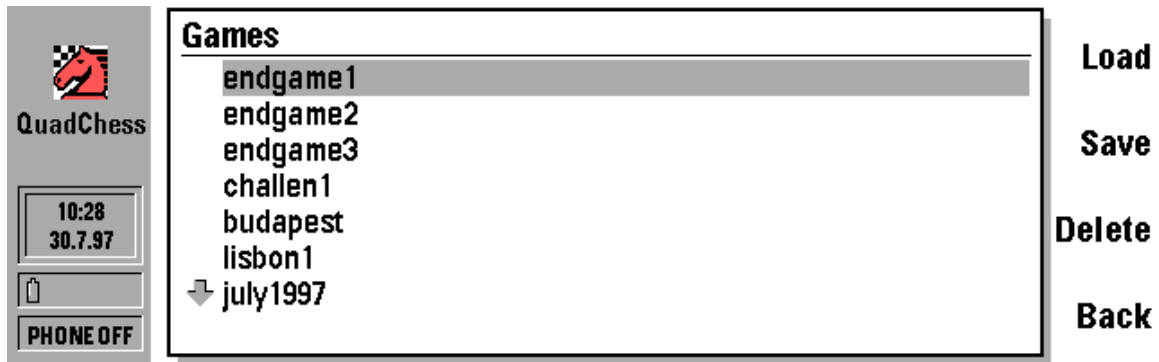

Figure 5: File options.

Save

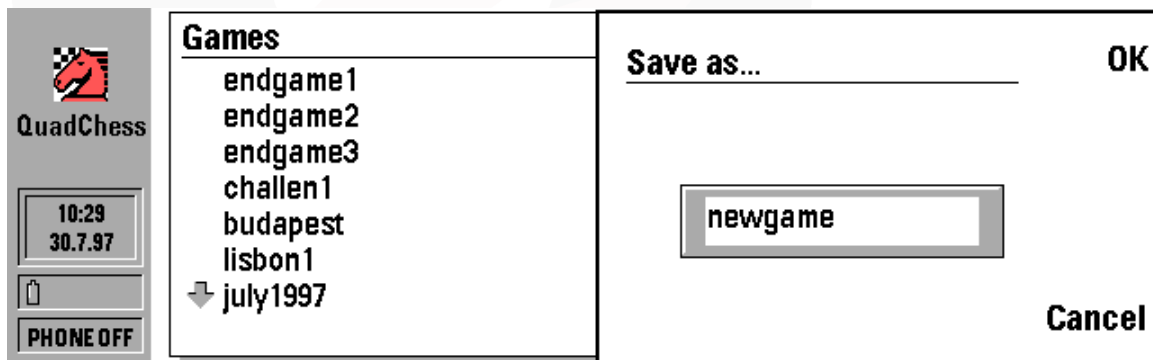Save the current game. A dialog box will ask you the name that will identify the current game.

Figure 6: Saving the current game.

Load

Load a previously saved game. Select the game to load from the list and press the **Load** command button. In this picture, game "lisbon2" will be loaded.
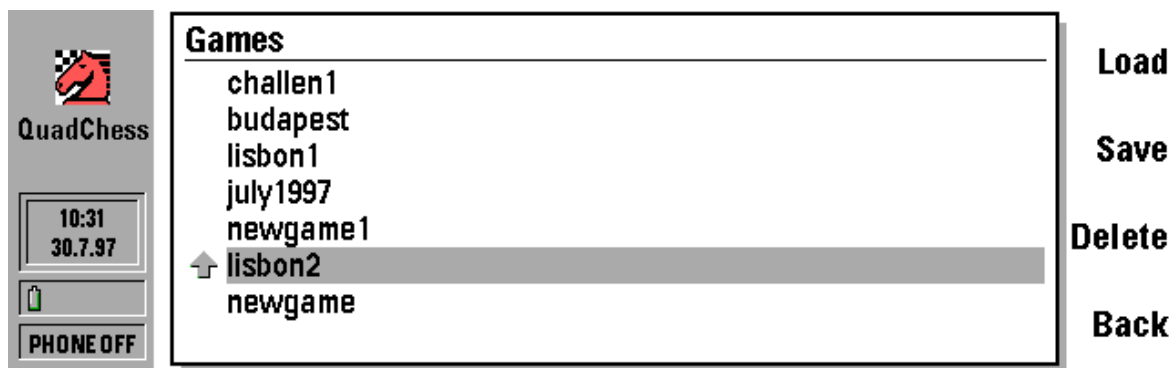
Figure 7: Loading a game.

Delete

Delete a previously saved game. Select the game to delete from the list and press the **Delete** command button. In this picture, game "challen1" will be deleted.
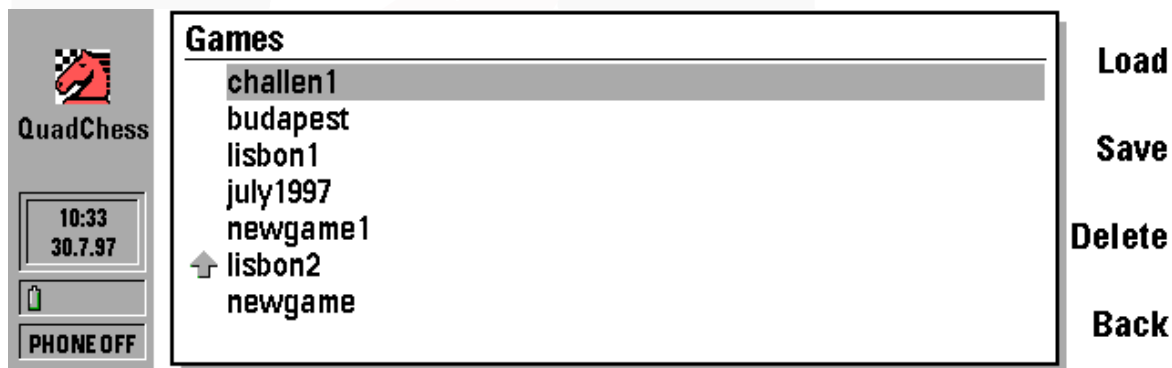

Figure 8: Deleting a game.

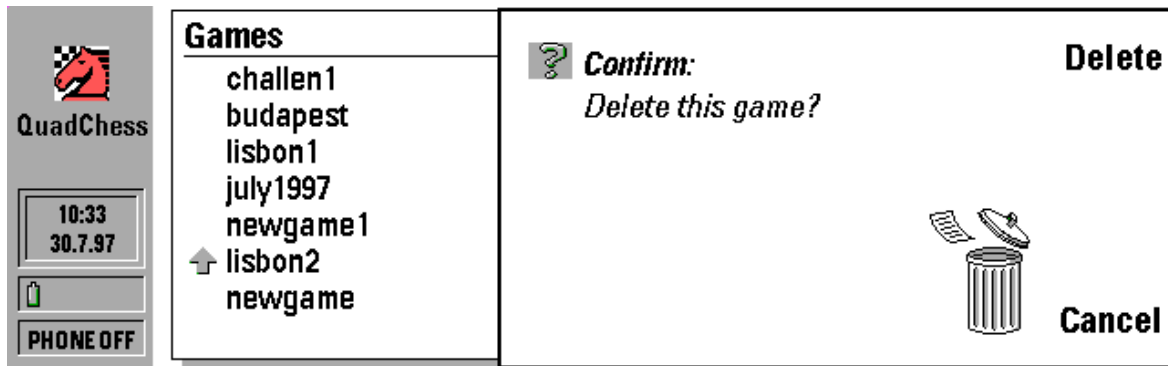First, you must confirm the deletion of the game.

Figure 9: Confirmation is requested.

Back
Brings you back to the main screen.

Undo
Select **Undo** when you want to go back in the game. The **Undo** command may be used in two different ways. First, if the cursor is placed on top of the chess board (the default position), pressing the **Undo** command button will result in the chess pieces being moved back to their previous position.

In the second scenario, if the cursor is located in the leftmost panel, on the list of moves made so far, pressing the **Undo** command button will position the game at the move immediately before the one that is being selected by the cursor.

Note: the **Undo** command will only work in a Player vs. Communicator game.

Options
The **Options** command provides the ability to select your preferences concerning the way *QuadChess* will operate.
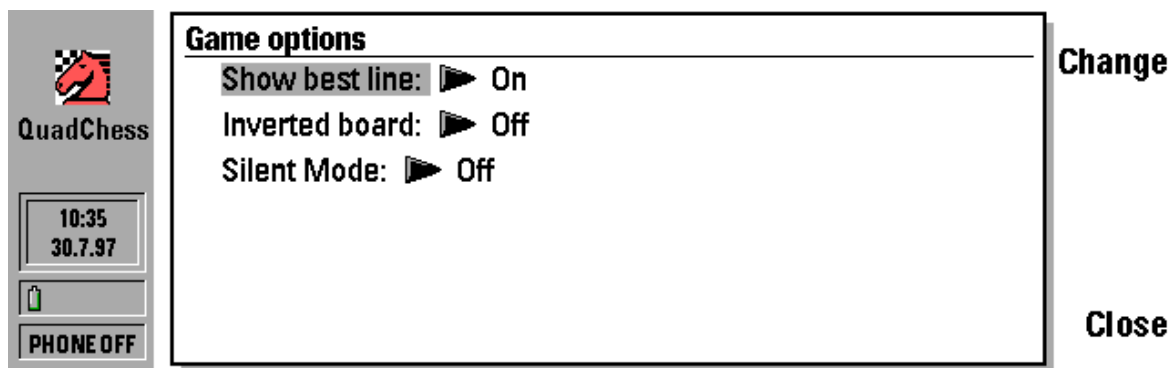
Figure 10: Preferences in *QuadChess*.

The following table describes each preference.

Preferences	Possible values	Description
Show best line	On/Off	This is the line in the right bottom of the main screen, with the preview of the best moves ahead. The first number may be negative or positive. If the Communicator is playing with the black pieces, it will try to produce a line of moves resulting in a number as negative as possible. Inversely, if the Communicator is playing with the white pieces, it will try to produce a line of moves resulting in a number as positive as possible.
Inverted board	On/Off	Choose **On** if you want the black pieces below and the white pieces at the top.
Silent mode	On/Off	Very useful to play during dull meetings or conferences...

Table 6: *QuadChess* preferences.

Close
This command closes the *QuadChess* application.

You can define a starting board by selecting the **User Defined Board** option in a new game.
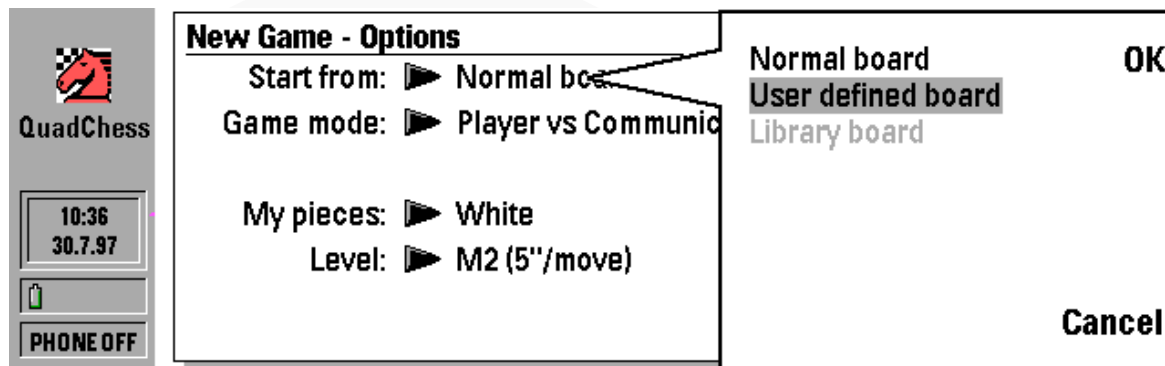

Figure 11: Selecting an user defined board.

When you select this option, a board will be shown to you, as depicted below. The initial configuration is the same as in the last played game. From there, you can create any configuration that you want.
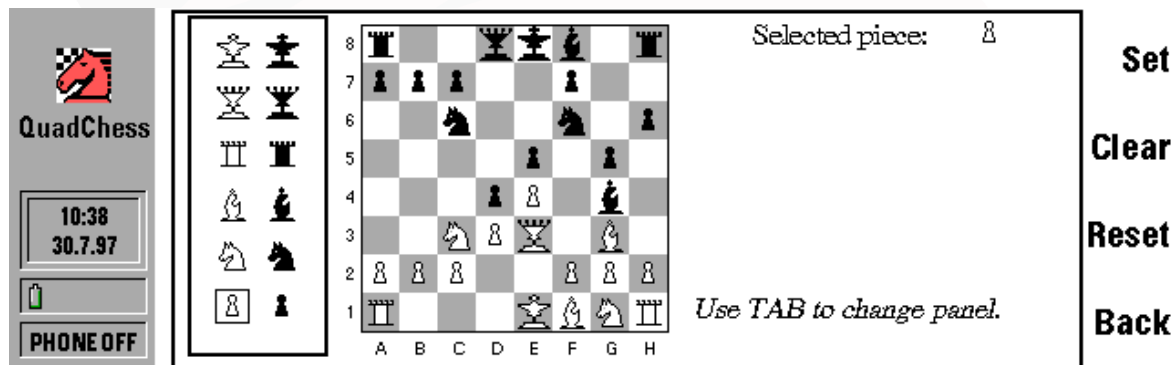

Figure 12: Composing an user defined board.

The process of setting the board is very simple. Just use the **TAB** key to move from panel to panel or, in other words, from the board to the stock of pieces and back. The selected piece is shown by an enveloping frame. The same piece is also depicted in the top right side of the screen.

After you select the piece to be set, again use the **TAB** key to move back to the chess board. Then use the arrow keys to position the cursor on top of the cell where you want to place the piece. Finally, use the **Set** command button to set the piece down.

Inversely, you can use the **Clear** command button to clear the cell on top of which the cursor is located. Moreover, you can use the **Reset** command button to erase the entire board.

The white pieces attack upwards and the black pieces attack downwards.

Always make sure that your board composition is legal. If you set an impossible configuration, *QuadChess* will produce an *"Invalid Configuration!"* warning message when you press the **Close** command button. The **Normal Board** mode will in that case be selected again. You can always re-select the **User Defined Board** mode and modify the configuration you last created, until you create a valid configuration.

Bear in mind that you may set all configurations possible in a chess game. Therefore, it is possible to create a legal configuration with 9 queens of one colour, for instance: the original queen and eight promotions from pawn to queen. In reality this is a very unlikely configuration, but it is absolutely legal. Importantly, do not forget to select the two kings. It may seem absurd, but happens quite often.
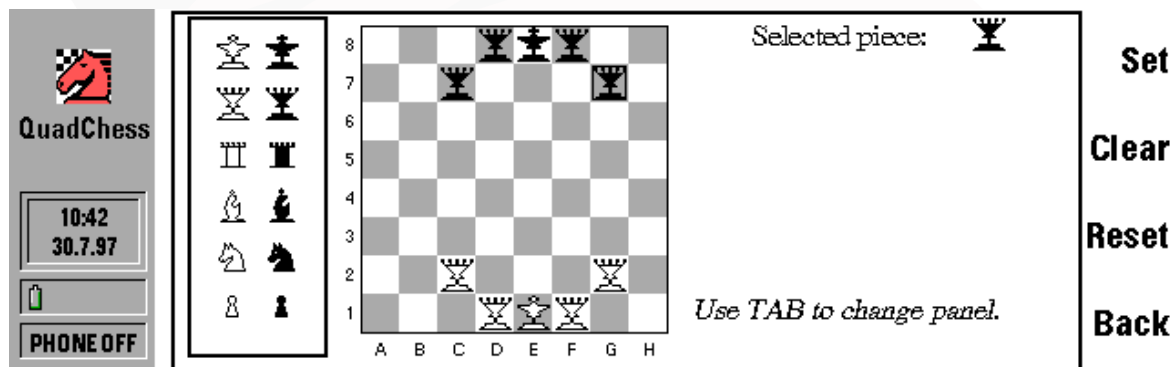

Figure 13: Unlikely but possible configuration!

Chapter 4 - Game Modes

There are four different game modes in *QuadChess*:

- **Player vs. Communicator**
- **Player1 vs. Player2 (SMS mode)**
- **Player1 vs. Player2 (same communicator)**
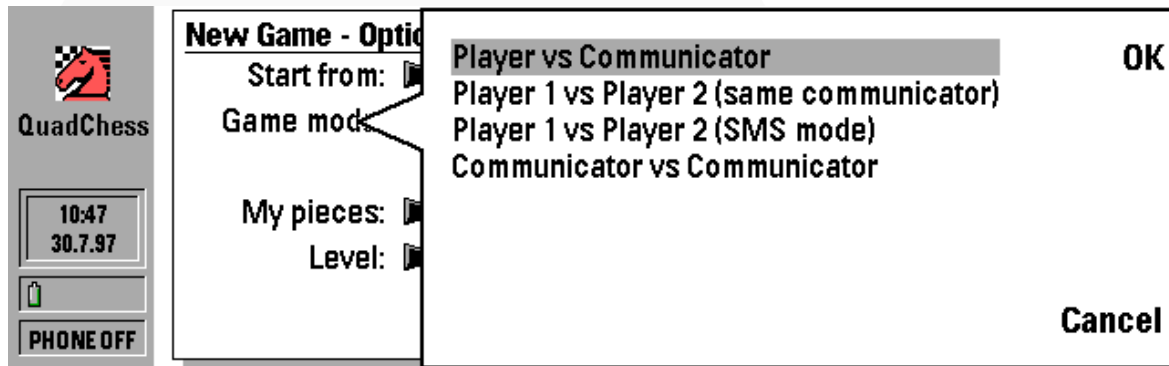- **Communicator vs. Communicator**

Figure 14: Game modes.

The following sections describe these modes.

Player vs. Communicator

This is the classical man versus machine challenge. As you read in the previous chapters, you can select from eight pre-set game levels and even customise your own game level[5].

---

[5] These levels are active only in *Player vs. Communicator* and *Communicator vs. Communicator* modes.

Level	Description
M1	2 seconds per move
M2	5 seconds per move
M3	10 seconds per move
M4	30 seconds per move
G1	5 minutes per game
G2	10 minutes per game
G3	30 minutes per game
G4	2 hours per game
User Defined	You specify the time per move or time per game

Table 7: Game levels.

If you select a level from **M1** to **M4**, the Communicator will only spend the amount of seconds pre-defined, in each move. For instance, the **M2** level gives the Communicator 5 seconds to consider its next move. The more time it has to make its next move, typically the better it will play, normally. Therefore, the **M4** level will be more difficult than the **M1** level. You can however take all the time you wish for each move.

If you select a level from **G1** to **G4**, you are specifying the amount of time that you and the Communicator has for the entire game. For instance, the **G3** level specifies 30 minutes per game and per player. *QuadChess* will spend as much time in a move as it feels reasonable for a 30 minutes game. The time per move is not constant though, since there may be more time available towards the end of a game than *QuadChess* anticipated. Therefore, *QuadChess* adapts the time elapsed in each move according to the total time left for the whole game, and the number of moves estimated to the end. If one of the players exceeds the time limit per game, the other player automatically wins (unless the conditions specified in Chapter 5 occur, in which the outcome will be a draw).

The choice you make for the game level will definitely influence the behaviour of *QuadChess* while playing against you.

If you are a beginner, start with level **M1**, giving *QuadChess* only 2 seconds per move. This will not give your opponent much time to examine the choices available and many of the moves will be clearly hasty. Now, if you give *QuadChess* more time, for instance in level **M4** where there are 30 seconds available per move, you can expect a very reasonable opponent. Any mistake you make at this level may be lethal!

If you prefer, choose one of the levels **G1** to **G4**. Here, you decide how much time you and your opponent will have for thinking the entire game. This will give you an easier way to determine the total duration of a game, and is very useful when you only have a certain amount of time to spend.

Of course you can always customise your level, choosing either a time limit per move or per game. This is done when you select a new game and then specify a level of type *User Defined Level*. By doing this, the following screen will show.
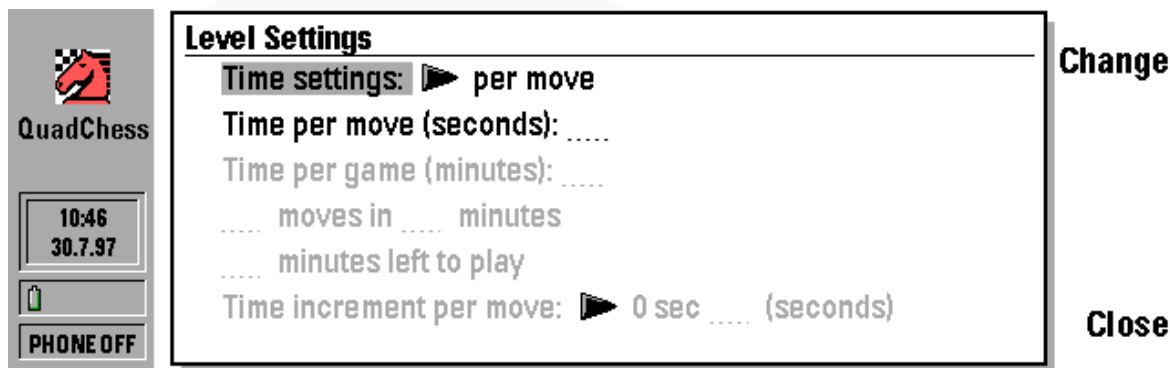
Figure 15: Level settings.

In *Time Settings*, specify one of modes *Per Move*, *Per Game* or *Control*. The first two were already described in this section. The latter is dimmed in the application and will only be activated in future versions of *QuadChess*. It will permit the play of a game with time limits both in terms of moves and game.

Once you select the *Time Settings* as either *Per Move* or *Per Game*, some other options will be available, which must be completed. You can go back by pressing the **Close** command button

Player1 vs. Player2 (SMS mode)

This is the modern version of the chess game between two players, by mailing letters with the moves and eventually some attached comments.

In SMS mode, you can choose any player that has *QuadChess* installed in a Nokia 9000 Communicator. You must be sure that both you and your opponent are able to send and receive

SMS messages[6] and that you are using the same operator or, alternatively, that there is the facility to send SMS messages between players from both operators[7]. Finally, make sure that you have correctly configured your Communicator for SMS use. Ask your dealer or operator for help on this subject.

Please note that there is usually a cost associated with sending an SMS message, usually equal to or less than one minute of conversation time between the mobile phones involved. If you are not familiar with this pricing, ask your dealer or service provider.

Challenging your opponent

When you select this game mode, you will be asked to specify your opponent's mobile phone number. You do this simply by selecting your opponent's name and phone number from the Contacts list in the Communicator.
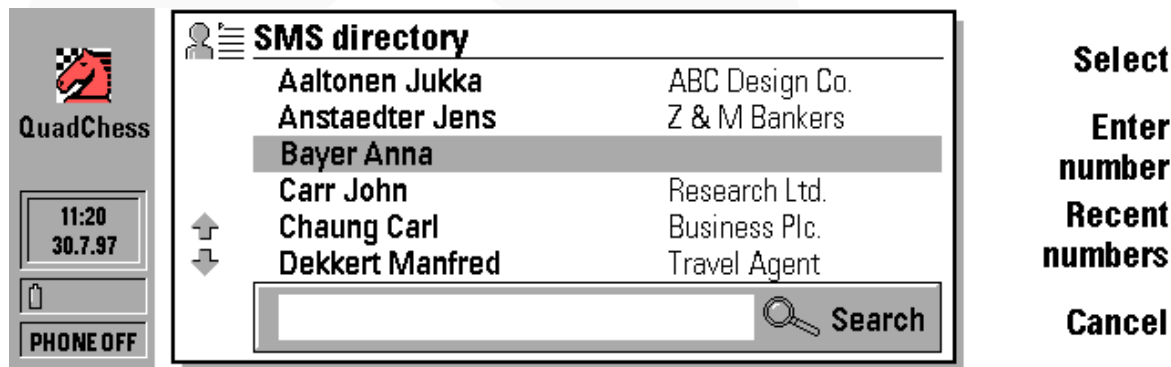

Figure 16: Contacts directory.

If you do not have your opponent listed in the contacts list of the Communicator, use the command button labelled **Enter number**. Then, you must specify your opponent's phone number.

---

[6] If in doubt, ask your dealer or operator. Your SIM card must have SMS mobile terminated (MT) and mobile originated (MO). SMS stands for Short Messages Service.

[7] Some operators, specially in the same country, block SMS messages between each other's clients, because of their business strategies. In these cases, it will not be possible to use the SMS mode to have a game between two clients in different operators.
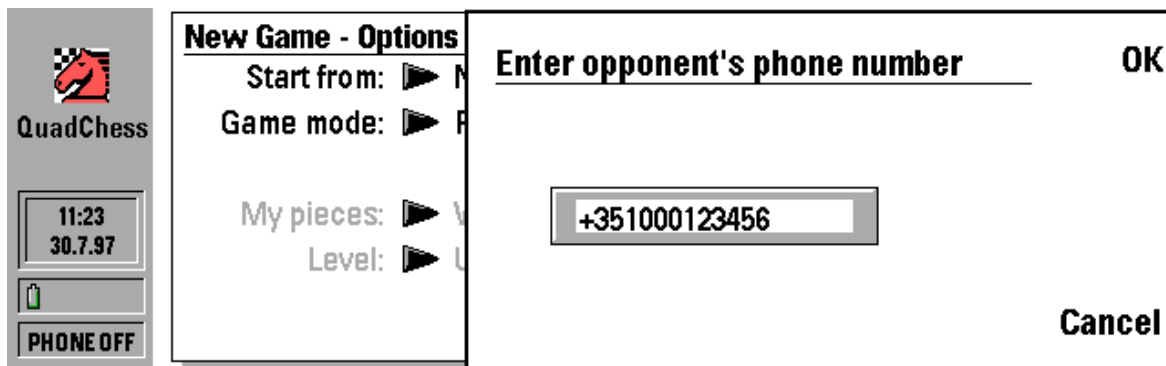
Figure 17: Entering a phone number (fictitious).

Always remember to specify the entire phone number, including the operator's prefix. Otherwise, the SMS messaging will return an error.

Once you have selected a name and number from the contacts list, you are ready to challenge your opponent to a chess game. Notice that being the challenger, you will play with the white pieces. Notice also that in SMS mode you must specify the *Normal Board* initial configuration. Choosing a *User Defined Board* is not allowed.
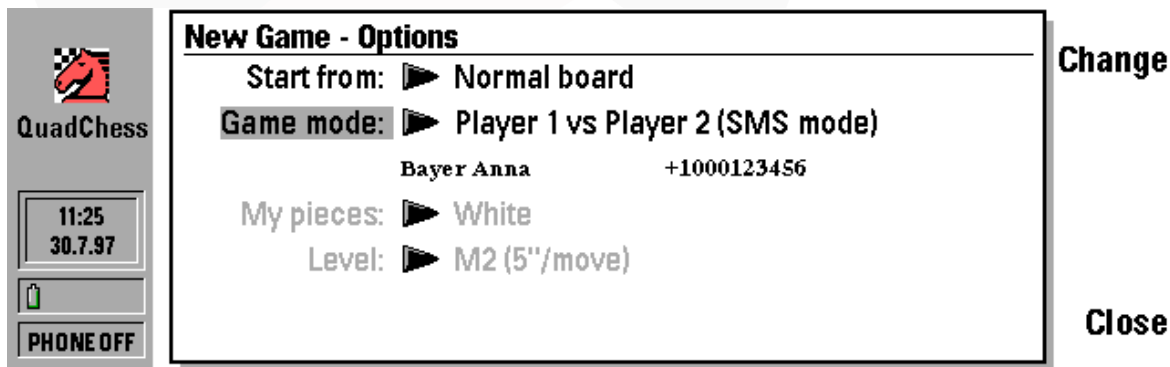

Figure 18: SMS mode selected.

Press **Close** to challenge your opponent.

You will be taken back to the main screen, so you can make your move. Then, select the **Send** command button. Your challenge and first move will be sent, along with any comment you might want to add.
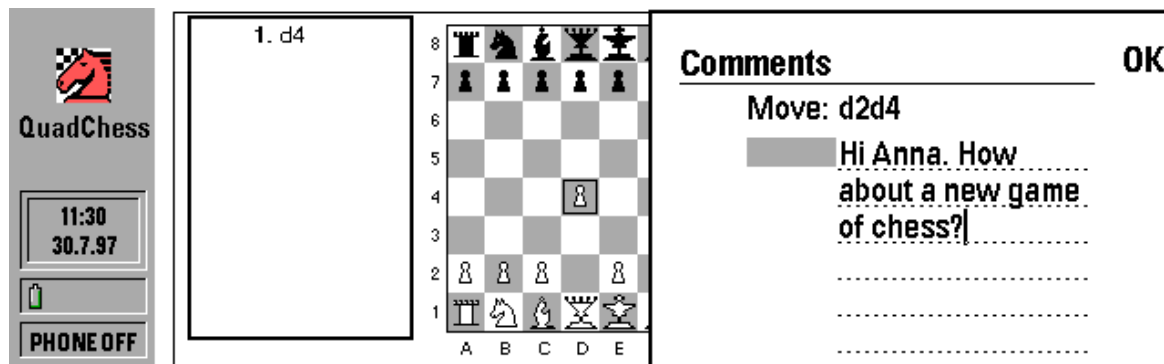

Figure 19: A challenge is sent, along with the first move and some comments.

You will receive a response only when your opponent is ready. See Chapter 7 if there is no response within a reasonable period.

The response will be transmitted in the form of an SMS message, sent directly to the *QuadChess* application. No copy of this message will be kept in the SMS messages list of the Communicator. If the response is favourable, the following message will appear:
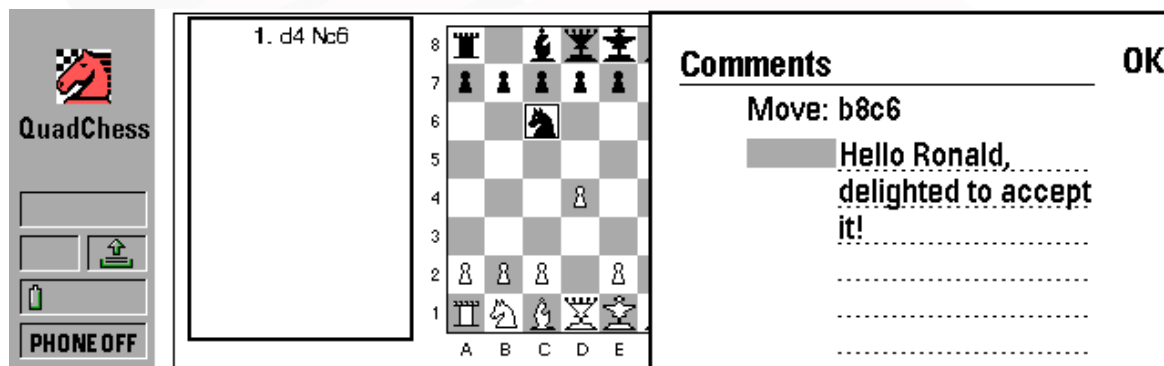

Figure 20: Your opponent accepted the challenge.

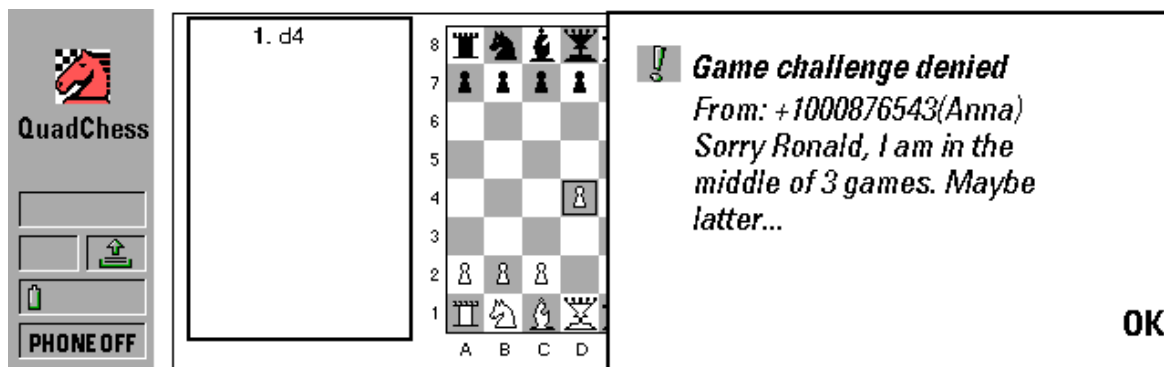If, on the contrary, the answer is negative, you will get this message:

Figure 21: Your opponent did not accept your challenge.

Being challenged by your opponent

If, on the other hand, you are being challenged by your opponent, you will receive an SMS message like the one shown below.
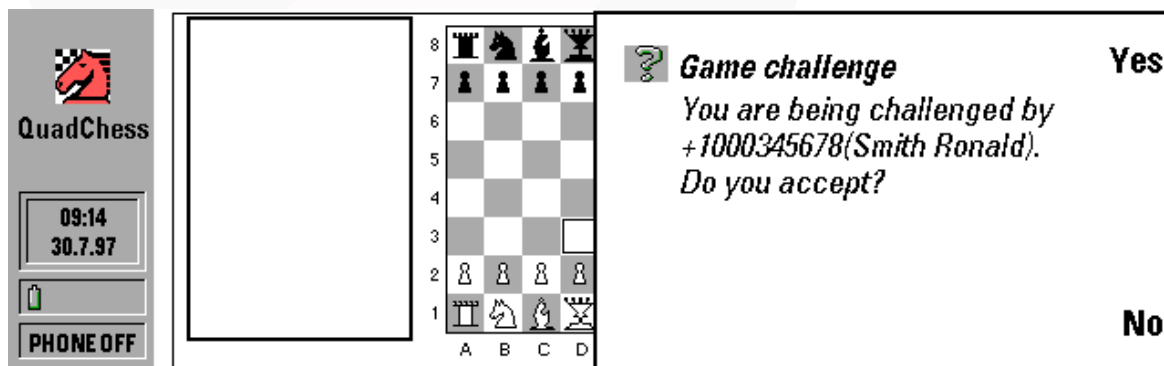

Figure 22: A new challenge is received.

You must reply by choosing **Yes or No**. If you choose **No**, a new dialog will ask you if you wish to notify the challenger.
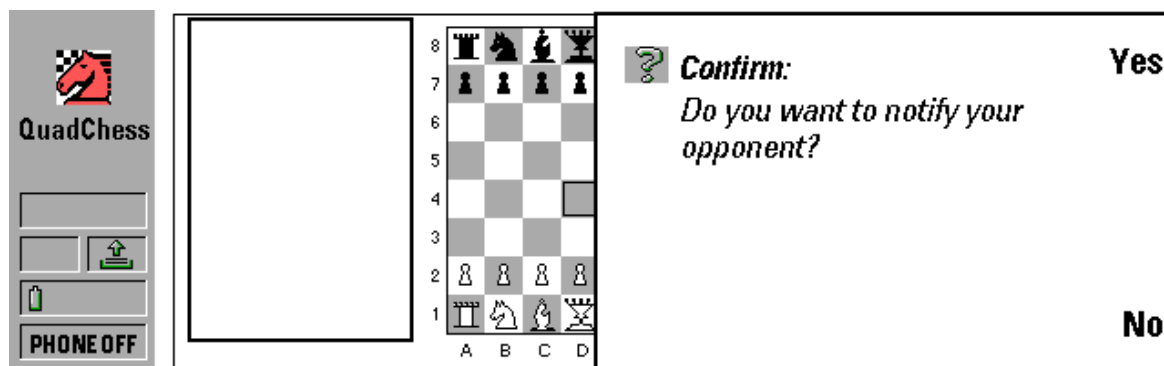
Figure 23: Notifying your challenger of a negative reply.

If you answer **Yes**, a message will be sent back to the challenger party, refusing the challenge. You can append a comment explaining, for example, why you do not wish to accept the challenge. That message is presented below.
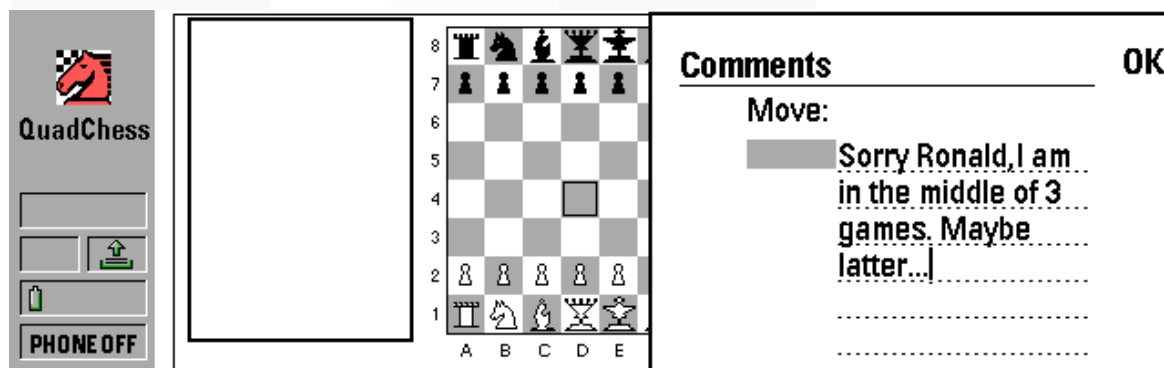

Figure 24: A negative answer is commented.

If you choose to accept the challenge, you will immediately see your opponent's first move.

After you make your move, remember to always press the **Send** command button. Only then will your message be sent. You may, at this stage, append any comment that your opponent will receive in addition to the move.

Player1 vs. Player2 (same Communicator)

This is an alternate way of having a match between two players. In this situation, both players use the same Communicator. This may not be as interesting as the SMS mode, but is certainly cheaper!

Communicator vs. Communicator

This mode is basically a form of observing and maybe learning from the way *QuadChess* plays. You must set the game level, as already detailed in the previous section **"Player vs. Communicator"**.

You must also press the **Move** command button between each move. The move button is essential to be able to view the progress of the game, otherwise you would not be able to follow it, specially in the lower (faster) levels.

Chapter 5 - Ending a Game

If you think that check mate is the only way to end a chess game, you are wrong. The following is a list of the possible ends applicable to all games:

End	Description	Justification
Draw	The game is considered a draw	There are four possibilities: • The same board configuration has been reached three times. • The total number of moves per player has reached 50 without any pawn advancing nor pieces being captured. • Lack of material. For instance, if two kings are the only pieces left on the board, it is impossible for any player to win. • If a time limit has been reached by one of the players and the only pieces that the opponent still has are the king and a maximum of one bishop or two knights.
Draw accepted	You accept your opponent's proposal for a draw; or your opponent accepts your proposal for a draw	You or your opponent found out that the possibility of any of you winning the game was very low, so you proposed the other party a draw. The other party accepted the proposal.
Lost by resignation	You resign	You found out that your possibilities of winning the game were very low, so you just decided to resign before the actual check mate.
Won by resignation	Your opponent resigns	Your opponent felt that the possibility of a victory was very low, so decided to resign before the actual check mate.

Table 8: Possible ways of ending a game.

During an SMS mode game against another player, if you want to propose a draw or to resign, just use the comments field when you send the next move to do so.

If you are playing against the Communicator, you do not need to be so formal. Just quit.

Chapter 6 - Warning Messages

During a game, *QuadChess* may produce a number of warning messages. This section describes each message, its meaning and the action to be taken, if any.

Message Text	Meaning	Action
Are you sure?	You are about to do something that you will not be able to undo.	Confirm your action.
Black lose on time!	The player with the black pieces exceeded the time set for the whole game (levels G1 to G4 or user defined level) and lost.	You may want to begin a new game.
Black resign!	The Nokia 9000 (your opponent), playing with black pieces, is resigning. You won.	It's time for celebration!
Black victory!	The player with black pieces won.	You may always start a new game.
Can't save more games! Delete some old games.	There are 50 games saved already.	Delete some games before saving the current one.
Check!	One of the players has made a move resulting in a check.	Continue playing. If your king is in check, protect it.
Checkmate!	One of the kings just died.	The king is dead. Long live the king...
Delete this game?	You are about to delete the selected game.	Confirm that you do in fact want do delete it.
Do you want to notify your opponent?	You didn't accept the challenge. Do you want to notify the challenger or just ignore them?	Select yes if you want to send an SMS and comments with your denial. Choose no if you just want to ignore the challenger.
Do you want to recover an old game?	A previous game was interrupted due to battery failure or other type of problem.	Select whether you wish to go continue with the old game or start a new one.
Draw due to 50 moves!	See Chapter 5.	You may want to begin a new game.
Draw due to no material!	See Chapter 5.	You may want to begin a new game.
(CONTINUES ON NEXT PAGE)		

(CONTINUED FROM LAST PAGE)		
Draw due to third repetition!	See Chapter 5.	You may want to begin a new game.
From: ... Game challenge denied	You challenged someone whom didn't accept the match proposition.	Life goes on. Just select another opponent.
Invalid configuration!	You created a configuration that is not legal according to chess game rules.	Alter the current configuration according to the rules.
Loading...	*QuadChess* is loading.	Wait until this message disappears. Then you can play.
Save current game?	Before you accept the new challenge, maybe you would like to save the current game.	Decide whether or not you want to save the current game.
Thinking...	The Communicator is preparing its next move.	Wait until this message disappears. Then it will be your turn to play.
This file already exists. Replace?	You are about to save the current game with a name of a game that already exists.	Make sure you want to overwrite the old game with the new one.
White lose on time!	The player with the white pieces exceeded the time set for the whole game (levels G1 to G4 or user defined level) and lost.	You may want to begin a new game.
White resign!	The Nokia 9000 (your opponent), playing with white pieces, is resigning. You won.	It's time for celebration!
White victory!	The player with white pieces won.	You may always start a new game.
You are being challenged by...Do you accept?	An SMS message was delivered to your Nokia 9000 carrying a challenge.	Answer yes or no to the challenge.
You received a move from ... that doesn't match any game.	Someone is sending you an SMS containing a move, but the identification doesn't match any game you have in disk or the current one. A possible explanation is that you erased that game from the disk before it ended.	There is nothing you can do except notifying the sender of the SMS.

Table 9: Warning messages produced by *QuadChess*.

Chapter 7 - Troubleshooting

Problem:

I challenged my opponent in SMS mode and I have been waiting for an answer for ages, but still nothing is received.

Possible reasons:

- Maybe your opponent didn't find the time to respond you as yet. Can you give them a call just to make sure?
- Maybe your opponent chose to ignore your challenge. It is their right...
- Make sure that your mobile phone is On and that there is adequate cellular coverage.
- Make sure that both you and your opponent have activated the SMS Mobile originated and mobile terminated services with your respective service providers. Ask your dealer or your operator if you are in doubt.
- Make sure that both you and your opponent have correctly set the parameters in the Communicators for SMS messages (both mobile originated and mobile terminated). Ask your dealer or your operator for instructions.
- Make sure you used the right phone number for your opponent. Remember to use the international prefix for international chess matches.
- Make sure you did not change the SIM card in the Communicator since you issued your challenge.
- If you and your opponent do not use the same operator, make sure that there is no impediment to exchanging SMS messages between the two operators. You can check this by calling your operator.

Problem:

I challenged my opponent and some minutes later an error was reported in the Communicator, saying that it was impossible to send the message.

Possible reasons:

- Make sure that your mobile phone is On and that there is adequate cellular coverage.
- Make sure that both you and your opponent have activated the SMS mobile originated and mobile terminated services with your respective operators. Ask your dealer or your operator if you are in doubt.
- Make sure that both you and your opponent have correctly set the parameters in the Communicators for SMS messages (both mobile originated and mobile terminated). Ask your dealer or your operator for instructions.

- Make sure you used the right phone number for your opponent. Always use the operator's prefix in the phone number of your opponent. Remember to use the international prefix for international chess matches.
- If you and your opponent do not use the same operator, make sure that there is no impediment to exchanging SMS messages between the two operators. You can check this by calling your operator.

Problem:

I have received a warning message saying " You received a move from ... that doesn't match any game."

Possible reasons:

- The game that you were playing in SMS mode with that person was probably interrupted by you and either abandoned without saving it, or you erased that game from disk.
- It is also possible that you ran out of battery in the middle of a game and did not choose to recover that game after you re-entered *QuadChess*.

Problem:

My last move in a game in SMS mode remains in the outbox tray of the Communicator.

Possible reasons:

- Make sure that your mobile phone is On and that there is adequate cellular coverage.
- Make sure that you have activated the SMS mobile originated service with your operator. Ask your dealer or your service provider if you have any doubts.
- Make sure that you have correctly set the parameters in the Communicators for SMS messages. Ask your dealer or your operator for instructions.
- Make sure you used the right phone number for your opponent. Always use the operator's prefix in the phone number of your opponent. Remember to use the international prefix for international chess matches.
- If you and your opponent do not use the same operator, make sure that there is no impediment to exchanging SMS messages between the two operators. You can check this by calling your operator.

Problem:

The Communicator takes a lot of time to make its move.

Possible reasons:

- Check the game level that you set. If you chose a *User Defined Level*, make sure that the times are within convenient limits.

Problem:

The chess board cursor doesn't move when I press the arrow keys.

Possible reasons:

- Make sure it is not the Communicators time to play. If it is, you will read a word "Thinking..." in the area to the right of the screen.
- Make sure you are not inside a menu. If any command button is labelled **Back**, press it until you get to the main screen.

Problem:

A warning message saying "Note: 1", "Note: 2" or "Note: 3" is showing.

Possible reasons:

- Something really unexpected happened! Please send all possible details to quadchess@quadriga.pt , so we can repair any bug you might have discovered.

Chapter 8 – Chess Rules

This chapter summarises the chess rules in which **QuadChess** is based. These rules are familiar to any chess player. Therefore, unless you are a beginner, feel free to skip it.

Piece	King

Move	The king may move one square in any direction. (see the rook table below about the castling move)
	
	The king may not move to another square in the following circumstances:
	    Another piece of the same colour is in that square;
	    If the king moves to that square it will be checked by an enemy piece.

Capture	The king can capture in any direction; The king can never be captured

Check	A king is in check if it is under attack of an opposite piece;
	If a king is in check, it must get out immediately of that situation by:
	    Moving the king to a safe square;
	    Capturing the attacking piece;
	    Interposing a piece of the king's colour and blocking the check.

Checkmate	A checkmate occurs if the king cannot get out of a check immediately.

Stalemate (draw)	A stalemate (draw) occurs if the following conditions occur simultaneously:
	    If the king cannot move in any direction;
	    If the king is not currently in check;
	    If the player owning the king cannot move any other piece

Table 10: The king.

Piece	Queen

Move	The queen may move any number of squares in any direction.
	
	The queen may not move to another square in the following circumstances:
	    Another piece of the same colour is in that square;
	    Another piece is blocking the path;
	    Leaving the current square will put the king of the same colour in check.

Capture	The queen can capture in any direction.

Table 11: The queen.

Piece	Rook

Move	The rook may move any number of squares in horizontal and vertical directions.
	
	The rook may not move to another square in the following circumstances:
	    Another piece of the same colour is in that square;
	    Another piece is blocking the path;
	    Leaving the current square will put the king of the same colour in check.

Capture	The queen can capture in horizontal and vertical directions.

Castling	Castling is a simultaneous move of the king and one of the rooks of the same colour. There are two options:
	    Castling the king's side: the king moves two squares towards the rook nearer to the king and that rook leaps over the king.
	
	    Castling the queen's side: the king moves two squares towards the rook more distant to the king and that rook leaps over the king.
	
	The castling may not be produced in the following circumstances:
	    If the king is in check;
	    If there is a piece between the king and the rook;
	    If the king or rook have already been moved;
	    If the square leaped by the king is under attack;
	    If the king will be in check after castling.

Table 12: The rook.

Piece	Knight

Move	The knight may leap to any square in an "L" shape move (1 square in the horizontal or vertical direction plus 2 squares in the orthogonal direction). The knight may therefore jump over any piece.
	
	The knight may not move to another square in the following circumstance:
	    Another piece of the same colour is in that square;
	    Leaving the current square will put the king of the same colour in check.

Capture	The knight can capture in any square to which the "L" shaped movement takes it to.

Table 13: The knight.

Piece	Bishop

Move	The bishop may move any number of squares diagonally.
	
	The bishop may not move to another square in the following circumstances:
	    Another piece of the same colour is in that square;
	    Another piece is blocking the path.
	    Leaving the current square will put the king of the same colour in check.

Capture	The bishop can capture in any diagonal direction.

Table 14: The bishop.

Piece	Pawn

Move	On the first move a pawn may move either one or two squares forwards;
	After the first move a pawn may only move one square forwards at a time.
	
	The pawn may not move forward to another square in the following circumstances:
	    Another piece is in that square;
	    Another piece is blocking the path;
	    Leaving the current square will put the king of the same colour in check.

Capture	The pawn captures by moving diagonally one square forwards; The *en passant* pawn capture occurs when, in a first move by a pawn, it moves two squares and, in addition, the middle square is being attacked by another opposite pawn. In these circumstances, the opposite pawn can capture the first pawn, although its current position is one square forward to the square under attack.
Promotion	When a pawn reaches the opposite border of the chess board, it is promoted to one of the following pieces: queen, knight, bishop or rook of the same colour. Any new piece can be repeated in the promotion. For example, it is possible to promote to queen even if there is already a queen of the same colour in the game.

Table 15: The pawn

Index