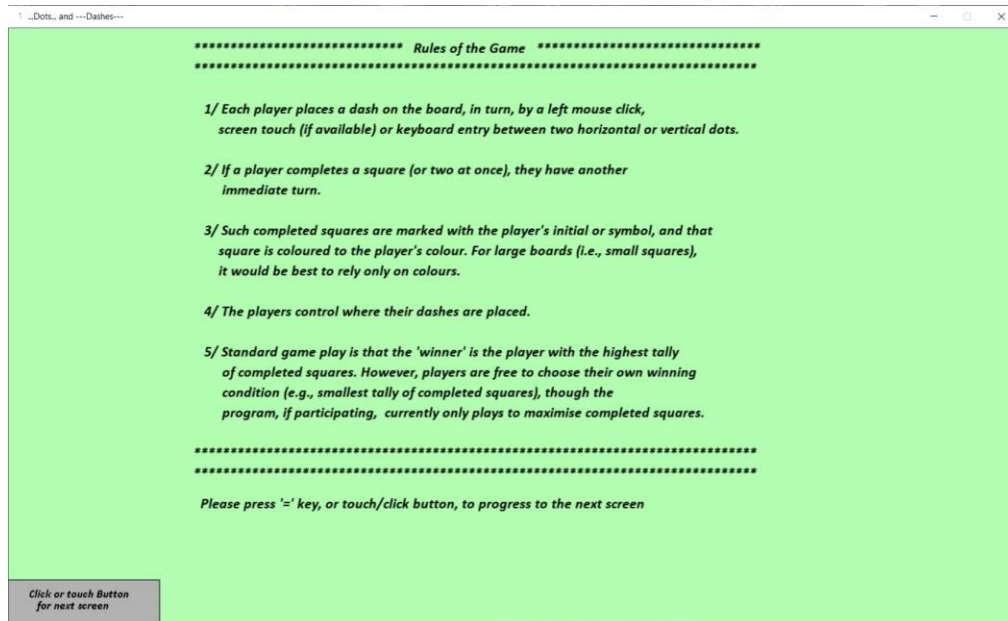


# Dots and Dashes Game

## Quick Reference Guide

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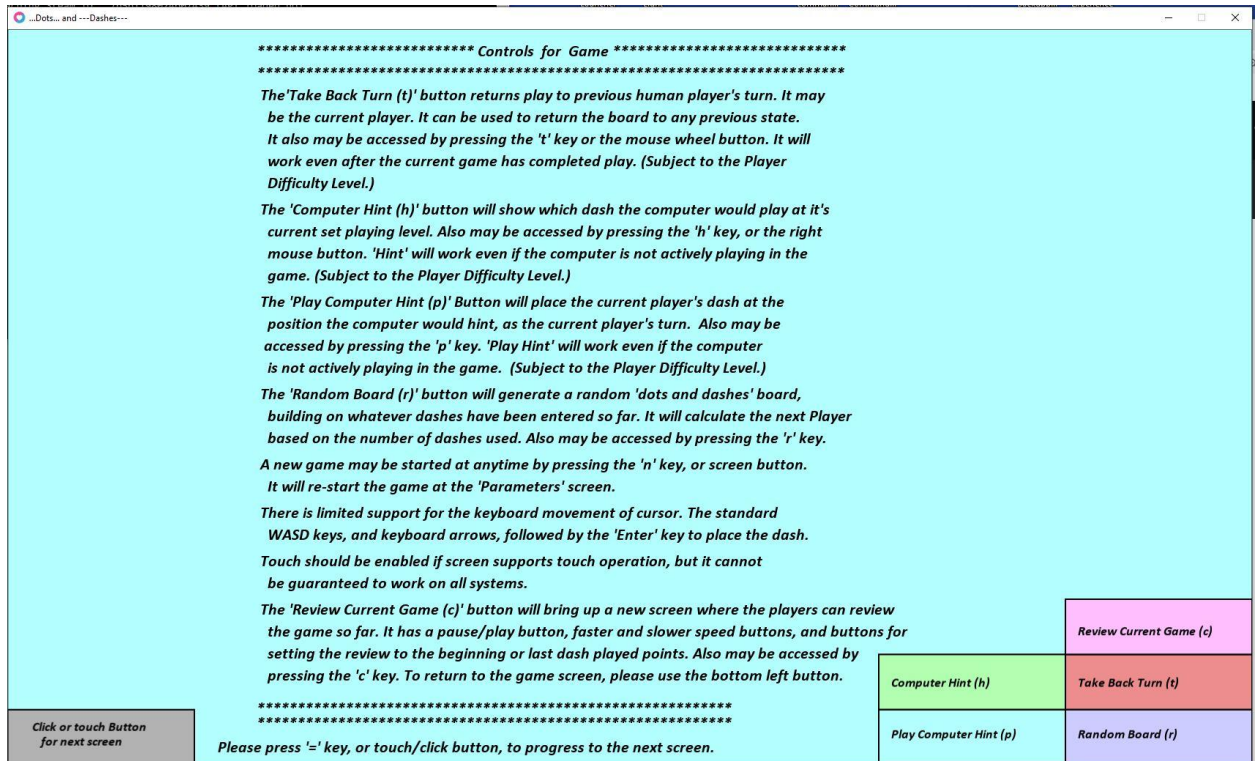
### a) Rules of the Game



As the first screen states, the rules of the game are very simple. Players, starting from player 1, place a dash, in turn, on a rectangular grid of dots. The player who completes the fourth side of a square (or the fourth side of two neighbouring squares) has an immediate extra turn to place a dash. Such complete squares are attributed to the player who placed this fourth dash. The game continues until all dashes have been placed on the board. Completed squares are marked with the player's initial (or symbol) as well as a colour. Initials, symbols and colours can be selected from the player information screen, just before the current game starts.

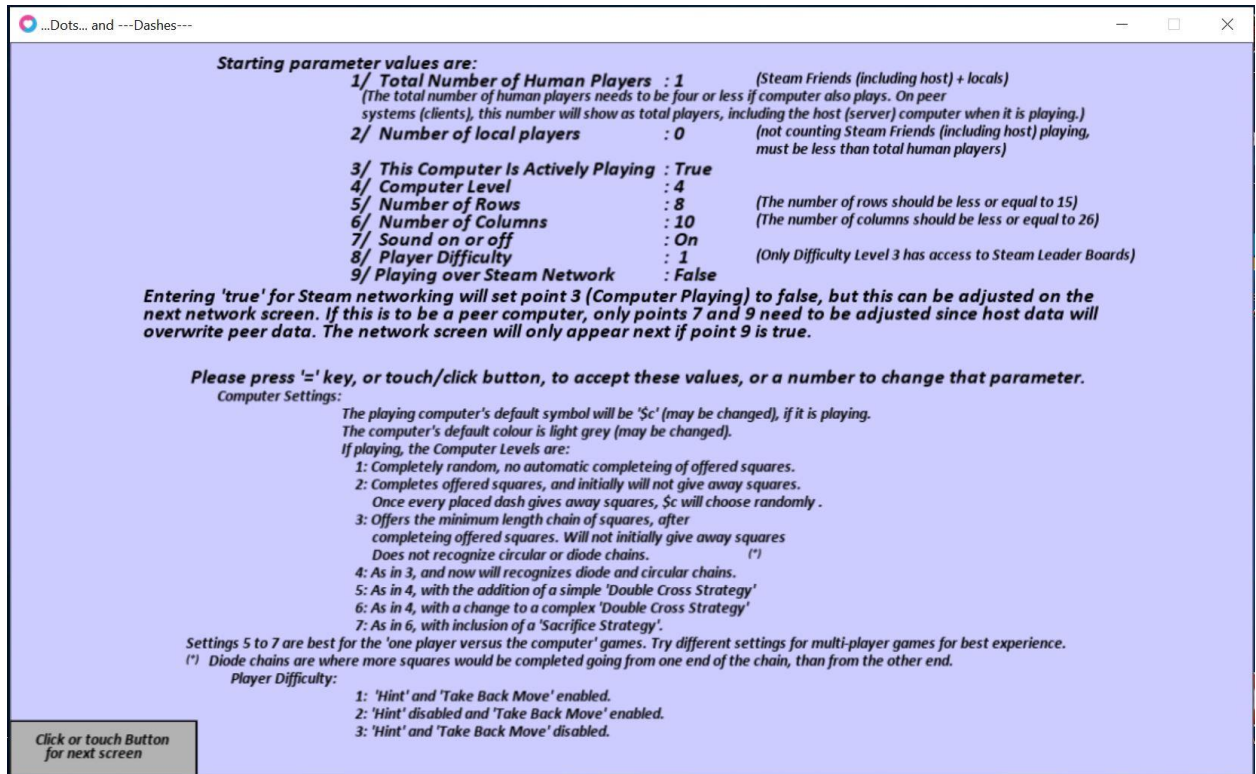
The tally of completed squares is shown on the board screen for all players, though the program does not state who wins (apart from one exception explained further on). The reason is that this leaves the players to decide their own criteria for winning. However, the standard criteria, and the one the computer will play to, is the player with the highest tally of completed squares is the winner. The players can decide if the computer participates in a game or not.

## b) Controls of Board



The game is controlled through mouse actions, or keyboard entry. Each of the large buttons on the board have an equivalent key that can be used. The actions of the buttons are explained in the screen shot above. Note that the “hint”, “play hint” and “take back turn” buttons are dependent on a “player difficulty level” explained on the next screen. The button in the lower left corner either advances between the various screens, or, on the game screen, it will immediately initialize the program for a new game, with the screen reverting to the “Parameter Screen” (next page)

### c) Adjustable Parameters



While the parameter screen looks busy, there are only nine parameters that can be adjusted, and they initialize to basic default values. The default settings are a single player versus machine game, on an 8 square x 10 square board, with no networked or local players. The rest of the screen briefly describes either the seven settable computer levels (parameter 4), or the three player difficulty levels (parameter 8).

If the computer does not actively participate in a game, it can still supply hints or play a dash for a player (dependent on the set player difficulty level). If the computer does participate, up to four players (Steam Friends or local players) can play in the same game. Network play requires Steam Friends to participate in the game, via the Steam network. If the computer does not play, five Friends or local players can participate. The game will report the individual tallies of squares for each participant. As well as the “hint” and “play hint” functions, there is the ability to take back any number of turns.

There are three “player difficulty” levels. The lowest level (1) allows “hint”, “play hint”, and “take back turn” buttons to operate. The next level (2) only allows the use of the “take back turn” operation, while the third level (3) allows none of these operations to work. At this last level (3), in a “single player versus computer” game, if at the end of the game the player has a higher tally than the program, at computer level 3 and above, an entry is automatically placed on the appropriate Leader Board. Hence Leader Board

entries show the result of a player with no computer (or other) help defeat the program on a particular board size, and computer difficulty level. The many leader boards are listed at the end of this document. Only Steam members have access to the leader boards.

If network play is enabled (setting 9 true), then setting 3 (computer is actively playing) is set to false on this parameter screen. For network play only one computer can act as host and actively participate, if desired, in a game between a mixture of networked Friends and local players. Which computer acts as host is set on the next screen, network parameters (if network play is true).

#### d) Steam Network Screen

Please enter the following network data:

1/ Is this computer the host: True  
(Only one computer can be the host, and actively play in the game)

The following Friend's are currently on-line:

a)

Please enter the letter index of the Friends who will be playing in the game for the following positions.

2/ Player 2

3/ Is this host computer playing in game: False

Please press '=' key, or touch/click button, to accept these values, or a number to enter/change that parameter.

Progressing to next screen will activate Host/Peer operations.  
The parameter values (e.g., number of rows) of the host will overwrite those of the peers.

Click or touch Button for next screen

If network play is enabled the above screen will appear. Whichever Player is hosting the game will need to enter true for the first question. A list of friends currently online will also be shown, and the players will need to enter an alpha character (a, b, c etc.) corresponding to the Friend's name at questions 2 to 5 (the number of positions depends on the number of players entered on the previous screen). The last question is to choose whether the host computer actively plays in the game.

Note that if a "new game" option is selected after the first game, the last question of the network screen always defaults to false, and will need to be changed if the host computer is to play. If network play is enabled, **all** players need to progress to the next screen before **any** player is presented with that screen (handshaking between host and

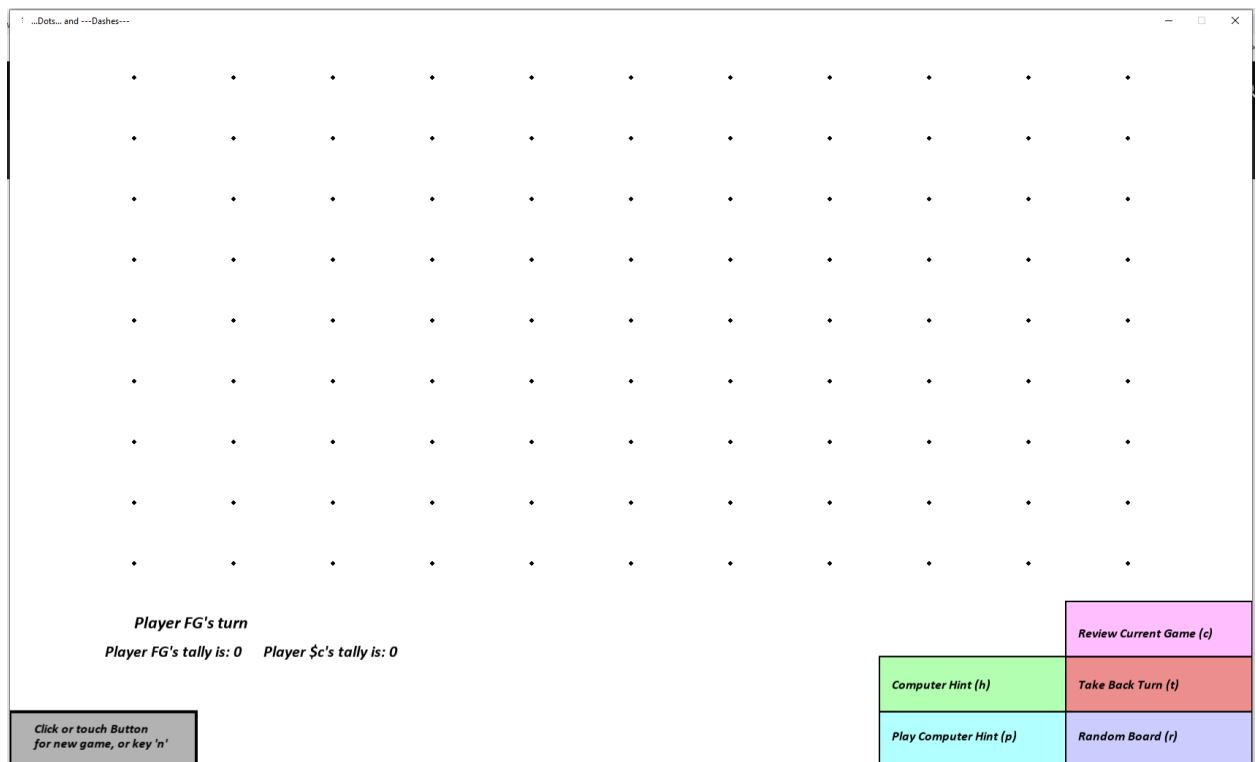
peers is being established at this point). Hence it may appear that the screen is frozen for a few seconds while all players progress between screens.

One final point: all players whether on host and peer machines can enter nearly all of the required data, or game moves at any time. The only question limited to the host computer player, is whether that host computer actively plays in the game.

### e) Player Data

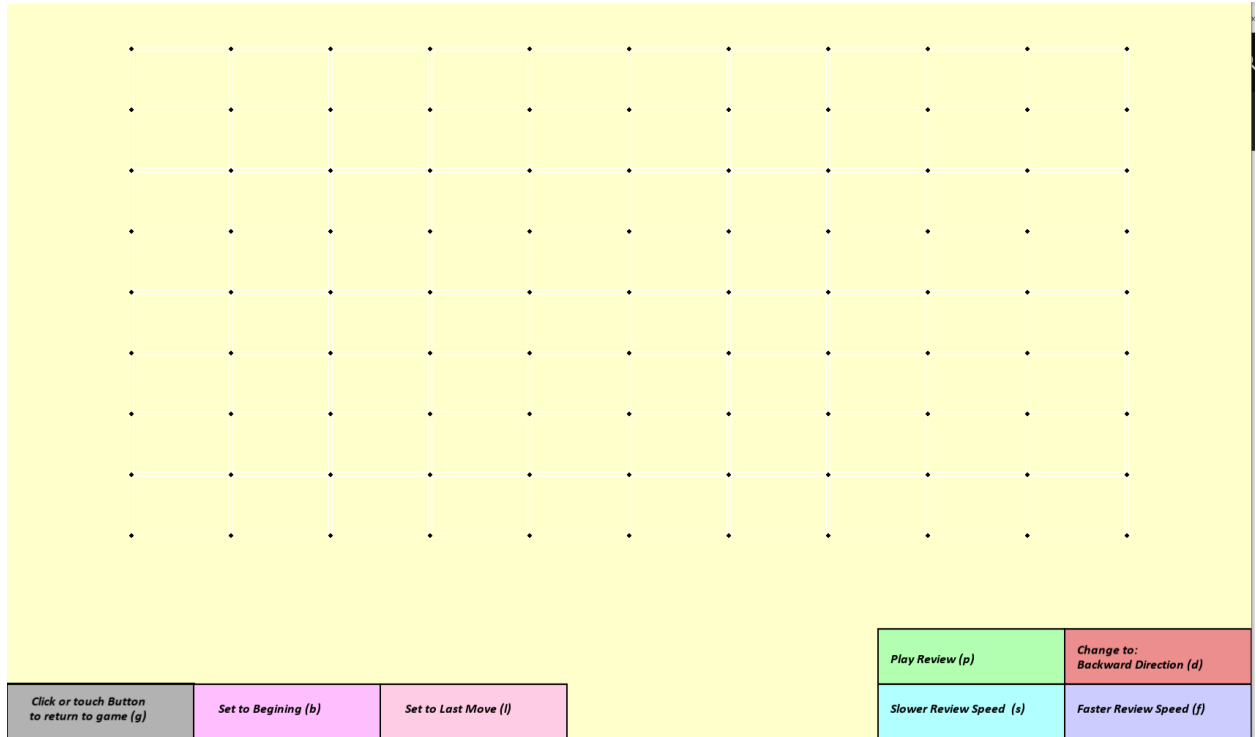
The player data screen lets players choose the initials/symbols that they will use to mark their completed squares, and to set a colour (16 available) to colour such completed squares. Only the set number of players appear on this screen, including the computer if it is actively playing the game. The default symbol and colour for the computer may be changed. Once this data is decided, players can progress to the game screen

### f) Game Board



The above image is of an 8x10 blank game between one player and the computer. Dashes may be entered with the mouse or keyboard by positioning the cursor over the dash to be selected and using the left mouse button or the enter key on keyboard (or a computer chosen dash by selecting 'play hint (p)', if available).

**g) Review Board (accessed through “Review Current Game (c)” button, or key c)**



The review board allows players to move through the game, from beginning to last dash played, controlling both the speed and direction of the review. This screen is available at any time during (or after) the present game, and is available at all player difficulty levels. No changes can be made through this screen. To return to the active game use the button in the lower left corner, or key ‘g’. After further game play, if the review board is again accessed it will be in the state it was left. The further play will be seen by pushing ‘play’ while forward direction is selected. Note that fast playback may lead to data loss over the network, however, pushing the “Set to last move (l)” will always show the current state of the board. If data loss does occur, please try a slower playback speed. Each push of the speed button increases/decreases the speed by a factor of 2. The background to the review screen is a very pale yellow, while that of the game board is white. The “play/pause” button and the “change to backward/forward direction” buttons’ messages toggle between their corresponding two states. E.g., “Play Review (p)” or “Pause Review (p)”. Again, all players control what is occurring. There may be a short delay between enabling an action and the resulting action.

## **A Note On Strategy and Hints**

After the random play levels, the next simplest strategy the program implements is to minimize the number of offered squares to the next player. The more complex strategies appear at levels 5, 6 and 7. The “Double Cross” strategy (Google or Bing the name for references and explanations), is only effective for chains (linked squares) of length three (3) or greater. Hence the player who is offered the last one or two square chain, will lose, if the opponent plays the double cross strategy correctly for the rest of the game. Level five (5) simply plays out the one and two chain squares that exist on the board. However levels six (6) and seven (7) will try to play one or two chain squares so to affect the remaining number of one or two square chains, so as to be in the position of offering the last one or two square chain to the next player. When it is clear this is not going to occur in a particular game, the computer will implement the “sacrifice strategy”, if it is at computer level 7. At these two highest levels, the strategy may lead to hinting a two square chain as the best play early in the game, even though there may be single squares available. The computer is simply following its own higher level strategy of trying to affect the number of one and two square chains available for playing. Whether players accept the hint is their choice.