

## **MANCALA**

# $\begin{array}{c} \textbf{BY} \\ \textbf{CALIFORNIA} \ \ \textbf{DREAMS}^{\text{\tiny{TM}}} \end{array}$

User's Manual

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## **Copy Protection**

In order to run the program, you will need to have your Mancala User's Manual on hand whenever you boot up the Mancala program. It is, therefore, very important that you DO NOT LOSE YOUR MANCALA USER'S MANUAL.

When you boot up the Mancala program, a dialog box will appear asking a question in reference to the manual. You will have to refer to your user's manual in order to answer this question correctly. If you fail to answer correctly, another dialog box will appear to give you a second chance to answer the question. Failure to answer the question correctly a second time will end the Mancala program and send you back to the computer's operating system.

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## GETTING STARTED

Your Mancala diskette is not copy protected, so before you use the Mancala program, we strongly recommend that you make a back-up copy of the original diskette (see your computer owner's manual for instructions on how to do this). Use your back-up copy when booting the game.

To boot the Mancala program:

**AMIGA:** Turn on your computer system with your KickStart disk (version 1.2 or greater). When the prompt appears to insert the WorkBench disk, put the Mancala diskette in the drive. Your computer will load the Mancala program.

Apple IIe/c/GS: Put the Mancala diskette in the disk drive. Turn on your computer and the monitor. Your computer will load the Mancala program.

**Atari ST**: Put the Mancala diskette in your disk drive. Turn on your computer system. When the desktop appears, double click on MANCALA.PRG. Your computer will load the Mancala program.

**Commodore 64/128**: Turn on your computer system in the usual manner. (If you have a C128, hold down the Commodore key while turning on the computer.) After the READY prompt appears, type:

LOAD "\*",8,1

and press RETURN. Your computer will load the Mancala program.

**IBM PC & Compatibles**: Turn on your computer system using your DOS disk. When the DOS prompt appears, put the Mancala diskette in drive A. If your directory is not in drive A, switch to drive A, by typing **A:** and pressing Enter. Then, type: mancala

and press ENTER. Your computer will load the Mancala program.

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## **USER INTERFACE**

The cursor in your Mancala program is a pointing hand or an arrow. All moves in the Mancala program are made by pointing with the cursor and then selecting items on the screen. To move your cursor, point and select:

AMIGA, Atari ST: Use the mouse to move the cursor. Press the left mouse button to select.

Apple IIGS, Macintosh: Use the mouse to move the cursor. Press the mouse button to select.

**Apple Ile/Ilc, Commodore 64/128:** Use the joystick to move the cursor. Press the joystick button to select. -or- Use the cursor keys to move the cursor, and press the RETURN key to select.

Commodore users:

F1 key: Allows you to get help from the computer

F7 key: Takes back a move (undo)

Selects the default button (with a thicker border) in dialog boxes

#### IBM PC & Compatibles:

When using the keyboard:

Cursor keys: Moves the pointer.

Space Bar: Selects the highlighted button in dialog boxes

Enter key: Selects the default button (with a thicker border) in dialog boxes

Ins key: Selects the OK button in dialog boxes

ESC key: Cancels menu or dialog-box operations
Backspace key: Deletes characters in a filename

U key: Deletes characters in a illeriaming Takes back a move (undo)

H or F1 key: Allows you to get help from the computer

When selecting commands from the menu bar or pull-down menus, select the capitalized letter or number.

When using the joystick:

Use the joystick to move the cursor, and press the joystick button to select.

When using the mouse:

Use the mouse to move the cursor. Press the mouse button to select an item or to pull down menus from the menu bar. Highlight the desired command and release the button to select.

## ABOUT YOUR MANUAL

Your Mancala User's Manual consists of two sections. The first section is designed to teach you how to play the game of Mancala. It includes a description of the equipment necessary to play the game, the rules of the game, and some hints on strategy.

The second section of your Mancala User's Manual provides a description of how to play the game on your computer. This description includes an explanation of how to move the playing pieces and how to access the menu bar and all of the options available to you.

## PART ONE

## THE GAME OF MANCALA

Mancala has often been called the national game of Africa, with origins tracing back at least 3000 years to the time of the Pharohs in Egypt. Mancala is not one game, but at least 200 games linked by a fundamental play system. Variations in the board arrangements and rule details are determined by the regional distribution of the game within Africa. Variations of the game are also played in the West Indies, the Middle East, and the Far East.

Mancala, in its different forms, is played for many different reasons. Most often, it is played simply for amusement, but has also been recognized as a means of social interaction. In some cases, the game has taken on a semi-religious significance in mourning rituals.

The Mancala program is based on a version called "WARI" found along the West Coast of Africa. Like all other variations, WARI is based upon a solid foundation of skill and strategy.

The following section of your manual explains how this game is played and describes several different strategies which you can use during the course of play. After reading this section and practicing against the computer, you will be on your way to becoming a master Mancala player.

## **EQUIPMENT**

In order to play the game of Mancala, you need three things: two players, a playing board, and at least 36 playing pieces (hereafter, they will be called stones).

Mancala is traditionally played with 48 identical stones, with four stones distributed into each of the 12 playing cups, although it may be played with 36 or 60 stones.

The playing board for Mancala is an exquisitely simple one. It is so simple, in fact, that in Africa, impromtu games can be played by carving out the board pattern in the dirt and playing on the ground. The board itself, is composed of two lines each of six cups with a larger cup at each end, these being used as stores for captured stones (see Figure 1).

Play takes place within the twelve central cups in which the stones are initially distributed. During play, the stones are redistributed (sown) among the cups (see Moving Stones). If on a player's turn, he captures some of the stones in his opponent's cups, he places those captured stones in his designated storage cup.

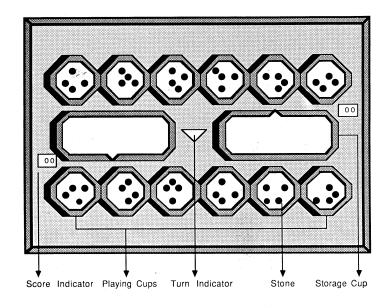


Figure 1
The Mancala Game Board

## PLAYING THE GAME

## Setting up the Board

Before you can play a game of Mancala, you must first set up the board for play. Setting up the board is simply a matter of dividing up the total chosen number of stones equally among the twelve playing cups. If, for example, 48 stones are being used, then four stones should be distributed in each of the twelve playing cups.

## Object of the Game

The object of Mancala is to capture as many stones as possible before the game ends. The player with the greater number of captured stones in his storage cup at the end of the game wins. Stones are captured through the redistribution process (hereafter referred to as sowing) of pieces around the board (see section on Capturing Stones).

## Starting the Game

At the start of play, one player is arbitrarily chosen to go first. Play alternates, with each player sowing his stones in an attempt to capture the stones in his opponent's territory.

## Moving Stones

Traditionally, Mancala is played by sowing stones among the twelve central playing cups in a counter-clockwise direction. Your Mancala program offers a *Bidirectional* option (see *Bidirectional* under the *OPTIONS* menu). A player may choose any of the six cups on his side from which to begin a sowing (provided that the cup contains at least one stone). All of the stones are taken from that cup and sown counter-clockwise. One stone and only one stone is sown into each cup, in an unbroken sequence, beginning with the cup directly adjacent the source cup. If the source cup is at the end of a row, the sowing begins in the opponent's cup directly opposite the source cup. The sowing ends when all the stones have been distributed.

During the course of the game, a source cup may contain enough stones such that a complete circuit of the board can be made in a sowing. In this case, the source cup must be passed over, and no stones should be placed in it. The source cup must always remain empty at the end of a turn.

Play alternates, each player on his turn emptying one of his cups and sowing the contents.

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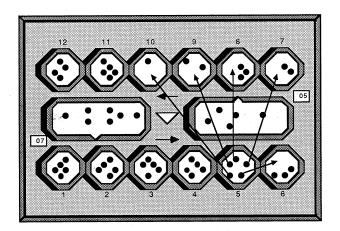
#### **Capturing Stones**

Players choose a specific cup and sow the contents in order to capture stones or in order to gain a strategic position for capturing stones at a later time. In order to capture stones, two conditions must be met. First, stones can only be captured on your opponent's side of the board. Second, a given sowing must end in one of your opponent's cups containing either one or two stones, thus bringing the total of the cup to two or three. In that case, all two or three stones are captured and moved to the capturing player's storage cup. If the cup immediately preceding the final cup <u>also</u> ends up with a total of two or three stones, and is also on your opponent's side, those stones are also captured. This rule applies to all preceding cups on the opponent's side, provided that the sequence is unbroken.

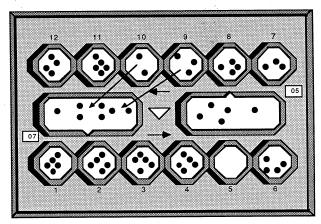
See Figure 2 on next page.

## Winning

The process of sowing and capturing continues until one player runs out of stones to sow. When one player is unable to make a move, the game is over, and the player with the greater number of captured stones in his storage cup wins. The game may also end when few enough stones remain in the playing cups to make continued play pointless. Both players can agree to abandon play at that point. The player with the greater number of captured stones in his storage cup wins.



Bottom player empties cup 5 and sows his stones. One stone is added to each of cups 6, 7, 8, 9, and 10.



Cups 9 and 10 end up with a total of three and two stones respectively, therefore all five stones are captured by the bottom player. Cup 8 ends up with a total of four stones, breaking the sequence. Therefore, the stones in cup 7 are not captured.

## **STRATEGY**

Mancala is, in every sense, a game of pure skill and strategy. Each sowing must be calculated in terms of how it affects your ability to capture the stones in your opponent's cups and in terms of how it affects your opponent's ability to capture the stones in your cups. There are four basic types of strategy that can be employed during a game: Flight, Reinforcement, Overkill, and Threat.

## Flight

Flight is a relatively simple move used to defend your stones from capture. If, on your turn, you determine that your opponent is in a position to capture the stones in one of your cups, you can prevent capture simply by emptying that cup and sowing the stones. This way, if your opponent proceeds with the intended move, his sowing will end in an empty cup, and he will capture no stones.

## Reinforcement

Reinforcement involves a more indirect defensive ploy by making a threatened cup ineligible for capture. If the threatened cup contains two stones (and can therefore be captured), you can empty a preceding cup such that, during sowing, a stone is added to the threatened cup thus bringing the total to three. That cup is then secured, because it contains more than two stones.

#### Overkill

Overkill involves defending your threatened cup by altering your opponent's sowing position. In this case, you can choose a cup from which to sow which will result in an extra stone being added to your opponent's cup which threatens your stones. With the extra stone, a sowing from your opponent's threatening cup will overshoot your vulnerable cup.

#### **Threat**

The Threat tactic is a more offensive strategy that can be used to fend off a possible attack from your opponent. In this scenario, you may wish to set up a counter-attack which would pose an immediate threat to the stones in your opponent's cups, forcing him to make a defensive play rather than attacking you.

## PLAYING THE MANCALA PROGRAM

When the Mancala program is loaded on your computer, the playing board and playing pieces will appear on screen. A hand with a pointing finger or an arrow will also appear. This is the pointer you will use in selecting options or moving stones. At the top of the screen is the menu bar. The following section will explain how to use the Mancala program and describe the options available.

## PART II

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## STARTING A GAME

When you first boot the Mancala program or after each completed game, the board will automatically be set up for you. If you are in the middle of a game, and you decide to start a new game, select *NEW BOARD* from the file menu. A message will appear asking if you want to restart the game. Select **YES** to start a new game, **NO** to return to the current game.

The triangle in the middle of the board will point to the player that goes first. Thereafter, it will keep alternating, pointing to the player whose turn is up.

The two large cups in the mid section of the board are the storage cups used for storing captured stones. The storage cup on the left belongs to the player on the bottom row, and the storage cup on the right belongs to the player

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on the top row. Next to the respective storage cups are score indicators. They keep track of the number of captured stones for each player for the game in progress. At the beginning of a new game, both indicators show 00.

In the Mancala program, there are two situations in which the default choice of who goes first may vary. If it is the first game, the bottom player goes first. (If you are playing against the computer, you play from the bottom row of cups, and the computer plays from the top row.) If there has been more than one game played, and a running total score is being kept, the loser of the previous game will go first.

You can use the *Edit Board* option in either of these situations to change the default order of turns. Simply select *Edit Board* from the *PLAY* menu at the start of the game and click on the turn indicator in the middle of the board. With this option, you can decide who goes first in the game.

At the start of a game, the player whose turn is up uses the pointer to select one of the six cups on his side from which to start the sowing. At the end of a sowing, the triangle will point towards the opponent, and it will be his turn to sow. Play will alternate, each player sowing and capturing stones, until a player can no longer make a move due to a lack of stones on his side. When this occurs, the game is over, and a message will appear on screen showing the total cumulative scores for all games played so far. Select **OK** to reset the board.

During the course of a game, you will need to count stones in your respective cups in order to determine what distribution will occur from sowing the contents of a certain cup. Instead of manually counting stones, you can obtain an automatic count of stones in any of the twelve playing cups. A count of the stones in the selected cup will be displayed along with a small white dash indicating where a sowing from the selected cup would end. Use of this option is valuable not only in determining your possible moves, but also in determining your opponent's possible moves.

**Joystick Users:** Move the cursor to the appropriate cup and press the fire button once to get a count. Pressing the fire button two consecutive times on the same cup (on your side of the board) will result in the sowing of that cup.

**Keyboard Users:** Position the cursor over the desired cup using the keyboard cursor keys. Press the SPACE BAR or Return key once to get a count. Selecting the same cup (on your side of the board) two consecutive times will result in the sowing of that cup.

Mouse Users (one button): Move the cursor to the appropriate cup and click once to get a count. Click again to sow the contents of the cup. Clicking the mouse button two consecutive times on the same cup (on your side of the board) will result in the sowing of that cup.

Mouse Users (two buttons): Move the cursor to the appropriate cup and click on the right mouse button to obtain a count. Clicking the left mouse button on any cup on your side of the board will result in the sowing of the cup.

## MANCALA MENUS

The Mancala program offers several options which can help add variety to the game and make playing more fun. These options are accessible through the menu bar at the top of the screen and will be explained in detail.

## FILE

#### Load Game

The Load Game option allows you to load a previously saved game. To load a game, select Load Game from the FILE menu. A file selector box will appear with a list of files. Select the appropriate game file and click on **OK**. If you select a file other than a game file, a message will appear telling you that the file cannot be loaded.

#### Save Game

The Save Game option allows you to save the current game for future play. To save the game, select Save Game from the FILE menu. A file selector box will appear with a list of files. Enter the name, including the extension, under which you would like to save the current game and click on **OK**. Note, that the Save Game option will not automatically save a log of the game when the game is saved. In order to save a log, you must select the Log Game option.

## Log Game

The Log Game option allows you to save a log of all moves made in the current game into a text file on the disk. You can then print this text file to obtain a hard copy of your log. The log will describe moves made in the game by referring to numbers which represent the cups on the board (see Figure 2). Select Log Game from the FILE menu. Enter the name under which you would like to save the game log, and click on **OK**.

## Quit

The *Quit* option allows you to exit the Mancala program and return to the operating system. To quit the current game and exit the Mancala program, select *Quit*. A message will appear to confirm that you would like to quit. Select **YES** to exit or **NO** to resume play.

#### PLAY

The *PLAY* menu allows you to manipulate certain aspects of the playing board. The menu offers the following options: *New Board, Edit Board, Show Scores, Reset Scores, Help, Undo.* 

#### New Board

Select this option to start a new game. A dialog box will appear asking if you want to start a new game. If you select **YES**, another dialog box will appear showing the cumulative scores for games played so far. Select **OK** to start a new game wihout saving a log of the current game or **LOG** to save a log of the current game. If you select **NO**, you will return to the current game.

#### **Edit Board**

The *Edit Board* option allows you to move stones to and from any cup (including the storage cups) on the playing board. When *Edit Board* is selected, the triangle in the middle of the board will blink. To move stones, first select the cup from which to move a stone. A white dash will mark the chosen cup. Next, select the cup where you want to move the stone, and the stone will be transferred. Note, that only one stone can be moved at a time. You may also change whose turn it is by clicking on the turn indicator in the middle of the board. When you are satisfied with the changes, select on the *Edit Board* option again in order to exit the edit mode.

#### Show Scores

The Show Scores option allows you to view the cumulative scores of both players for games that have been played. When Show Scores is selected, a dialog box will be displayed showing the cumulative scores. Select **OK** to return to the current game or **LOG** to save a log of the current game.

### Reset Scores

The Reset Scores option allows you to clear the cumulative score count for all previous games played. If, for example, you have not yet begun the current game, or the score in the current game is 0 to 0, resetting the scores will make the total cumulative scores equal to 0. If however, the current game has a positive score by either player, resetting the scores will set the total cumulative score count equal to the scores of the current game.

## Help

The *Help* option allows you to get suggestions from the computer as to your next move. When help is selected, the computer will indicate which cup you should empty and sow. A number, representing the number of stones in the cup, will appear by the cup suggested by the computer. A white dash will mark the cup at which the sowing will end.

#### Undo

The *Undo* option allows you to undo your most recent move. When *Undo* is selected, your most recent move is erased, and the board is positioned as if you never made the move.

## **OPTIONS**

The OPTIONS menu allows you to vary different elements of the game. The menu offers the following options: One Player, Two Players, Demo Mode, Bidirectional, Show Thoughts, Three Stones, Four Stones, Five Stones, Advanced, Intermediate, Novice.

## One Player/Two Players/Demo Mode

The Mancala program allows you to play Mancala against another player, play against the computer, or have the computer play against itself. To select a computer opponent, select the *One Player* option. You will play from the bottom row of cups. To play Mancala with two players, select the *Two Players* option. You and your opponent can decide between the top and bottom positions. The player with the bottom position is allowed the first move (default). To have the computer play against itself, select the *Demo Mode* option. A dialog box will appear on screen advising you that the demo can be exited by holding down any key. Select **OK** to run the demo. When you exit the *Demo Mode*, another dialog box will appear, asking if you wish to exit the demo. Select **YES** to exit the demo or **NO** to resume the demo.

#### **Bidirectional**

The *Bidirectional* option adds an extra twist to the game of Mancala. When *Bidirectional* is selected, the direction of each player's sowing will alternate between a clockwise and counter-clockwise direction whenever stones are captured by either player. Arrows will be displayed in the middle of the playing board indicating the direction of sowing on any given turn. When the *Bidirectional* option is not in effect, the direction of sowing is counter-clockwise.

## Show Thoughts

The Show Thoughts option can be invoked when you are playing against the computer. This option allows you to see the computer "deciding" between its possible moves. A white dash on the computer's side of the playing board will move among the cups on its side indicating the possible moves that may be chosen.

### Three Stones/Four Stones/Five Stones

These options allow you to choose the number of stones in each cup at the start of a game. As the option implies, you may choose to start Mancala with three, four, or five stones in each cup. Note, that this option can only be chosen at the start of a new game. If you attempt to change the option in the middle of a game, a message will appear asking if you wish to start a new game. Select **YES** to start a new game with the newly chosen number of stones or **NO** to resume the current game.

#### Advanced/Intermediate/Novice

These options can be chosen when you play against the computer and determine at what skill level the computer will play. These options can be changed during a game. A check mark next to the chosen option indicates which skill level is in effect.

#### Sound Off

This option allows you to toggle the sound for the game on or off. A check mark next to the *Sound Off* option indicates that it is enabled. To turn the sound back on, select *Sound Off* again.