MVP Backgammon Help (Release 1.3)

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Upgrading From a Previous Version

MVP Backgammon version 1.3 is a complete replacement for all previous versions. When upgrading care should be taken to first remove the existing version from the user's hard disk. Please remember to delete the BACKG.INI file from your windows directory. We do not recommend installing the new version into a directory containing an older version. Game and match save files, player databases, and many other program resources are incompatible with the previous versions.

The History of Backgammon

Though little is known about the ancient history of Backgammon, we do know that the basic <u>concepts</u> of the game are at least 5000 years old, making it one of the oldest games known to man. Some of the earliest references are in papyrii from Ancient Egypt. In AD 395 the Roman aristocrat and poet Sidonius Appolinaris expressed admiration for the worldliness of a Visigoth king who could play Backgammon. In Gibbon's Decline and Fall of the Roman Empire we find the following reference:

"Another method of introduction into the houses and society of the great, is derived from the profession of gaming, or, as it is more politely styled, of play. The confederates are united by a strict and indissoluble bond of friendship, or rather of conspiracy; a superior degree of skill in the tesserarian art (which may be intepreted the game of dice and tables) is a sure road to wealth and reputation. This game, which might be translated by the more familiar names of trictrac, or Backgammon, was a favorite amusement of the gravest Romans; and old Mucius Scaevola, the lawyer, had the reputation of a very skilful player ..."

The present form of the game probably evolved in the tenth century, when it was popular among the courts and noble houses of Europe as the continent emerged from the Dark Ages.

In 1743 Edmund Hoyle, famous chronicler of games and gaming strategies, set down the rules and strategy of the game as we know it today. Since that time the only recorded change has been the addition of the doubling cube, which raised the stakes for the Counts and Barons as they wagered their lands and livestock at the board.

We can only conjecture at the reasons for the long-lived popularity of the game of Backgammon. It is a game of continual intrigue and challenge. Even when victory seems assured the tides of fortune can change, the formerly friendly dice may turn cold, and the seemingly defeated rise to victory. It has been said that it is the work of mere minutes to learn the rules of the game, but the work of a lifetime to master its many strategies. We wish you good fortune in your quest!

The Rules of Backgammon

If you have never played backgammon before this section will familiarize you with the rules of the game. Backgammon's rules are simple and efficient, having evolved over more than 5000 years. It's strategy, however, is very difficult to master, and provides a significant challenge for humans and, to a very much greater degree, computers.

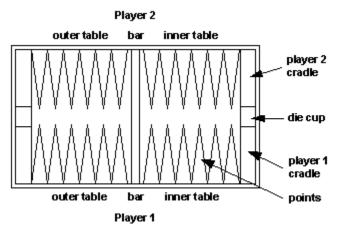
Overview of the Game Object of the Game Rolling for First Turn Moving the Stones Blocked Points Open Stones Rolling off the Bar Bearing Off Winning the Game The Doubling Cube

Overview

Backgammon is a game of chance, and also a game of skill and strategy. The nod to fortune comes in the form of the ever-fickle die, while thestrategy is required in the careful placing of your "stones", or gamepieces.

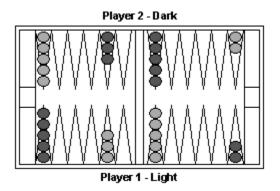
The game begins with two players facing each other across a board, usually enclosed within a wooden case that can be folded away when not in use. When opened the spine of the case forms a barrier down the center of theboard, dividing it into two halves. This is known as the <u>Bar</u>.

The two halves of the board, to the left and right of each player, arefurther divided into near and far halves crosswise. Thus the board canbe thought of as being formed of four quadrants, called "tables". Eachplayer has two tables on his or her side of the board. The table on theright is known as the Inner Table, while the table on the left is knownas the Outer Table. Each of the four tables contains six triangles, called "points", on which stones are placed during play. The configuration of a Backgammon board is shown below.



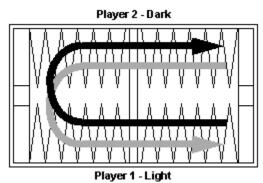
Each player has a "cradle" adjoining his or her Inner Table, where piecesare placed as they are <u>moved</u> off the board. In addition there is die cup where the die are placed when they are not in use.

The game begins by arranging the stones of each player in an ancient patternon the surface of the board. There are fifteen stones per player, with eachplayer choosing to play either the light or the dark stones. The stones arearranged as in the following diagram.



The Object of the Game

After <u>rolling for first turn</u>, each player <u>moves</u>his or her stones in alternating turns according to the throw of two dice. The goal is to be first to return all of the stones to the player's <u>cradle</u>. The players move in opposite directions around the board, as shown in the diagram below. Note that the alternate coloring of the <u>points</u> has no effect on movement, rather the coloring simply helps to make counting of moves easier.



The movement of a player's stones can be obstructed by another player's<u>blocked points</u>, and the player can also be hindered frommoving his or her stones around the board by having one or more stones<u>hit</u>, and placed on the <u>bar</u>.

When all stones have been moved into the player's Inner Table he or she canbegin <u>bearing off</u> by moving stones into the cradle. Whenone player or the other moves the last stone into the cradle that player <u>wins</u> the game.

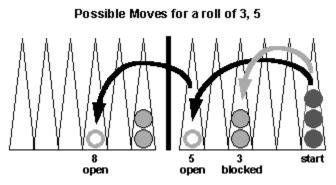
Rolling for First Turn

The laws and tradition of Backgammon require that the players roll a single die to determine who will take the first turn. If both players roll the same number they must roll again until one or the other rolls a higher number. At this point the player with the higher roll picks up the die and takes the opening turn.

For information on rolling for first turn in MVP Backgammon see <u>Playing</u> <u>MVP Backgammon</u>.

Moving the Stones

At each turn a player moves stones around the board according to the numbers on the die. Stones can be moved counter-clockwise around the board from the opponent's <u>Inner Table</u> to the player's <u>cradle</u>. The number of each die is considered individually, with each number being used up by moving one or more stones a corresponding number of <u>points</u>. A player may not place a stone on a point which is <u>blocked</u> by the opponent. If the full roll of both die is taken with one stone there must be a path to the destination point which is not blocked. The diagram below illustrates legal single and double moves.



If doubles are rolled (both die show the same number), then the player may move the number of one die four times. The other rules of movement as described in the previous paragraph apply.

If a player moves a stone onto a point on which the opponent has but one stone, the opponent's stone is <u>hit</u>, and placed on the <u>Bar</u>. A player with a stone on the Bar must <u>roll off the bar</u> before any other stone on the board may be moved. If, due to blocked points or a piece remaining on the bar, a player cannot use an entire roll, as much of the roll as possible must be used before play <u>passes</u> to the opponent. If a player cannot move at all then play passes to the opponent immediately.

The player must use both rolls if legally possible. Where only one roll can be used the larger of the two must be taken if legally possible. You can think of this rule as requiring you to take the move that leaves you with the smallest "pip count". The pip count is the number of triangles that all of your stones must traverse to reach the cradle. You are not allowed to move one stone such that it makes moving both impossible, and you are not allowed to move the smaller roll such that it makes moving the larger impossible. If you attempt this kind of a move the game will display a message box. When the message box is closed the move will be retracted. When all of a player's stones have been moved into the player's Inner Table the player must begin $\underline{bearing \ off}$ into the cradle.

Blocked Points

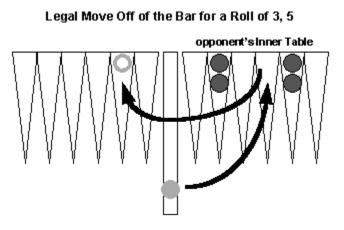
When a player places at least two stones on a point, the point is said to have been "made", and is blocked to the other player's stones. A player may not move a stone to a point blocked by the opponent, but may jump over the point to make a <u>move</u>. Blocked points may have serious consequences for player's who have stones on the <u>bar</u>.

Open Stones

When a player has a single stone on a point, that stone is open, and the point is called a "Blot". If the opponent moves to the blot the player's stone is "hit", and placed on the <u>bar</u>. The player must then <u>roll off the bar</u> before moving any other piece on the board. Judicious hitting of an opponent's men can be of serious benefit in a game, since the opponent's stone will be in the player's <u>Inner Table</u>, as far from the <u>cradle</u> as possible, after rolling off, but care must be taken not to leave friendly pieces vulnerable.

Rolling off the Bar

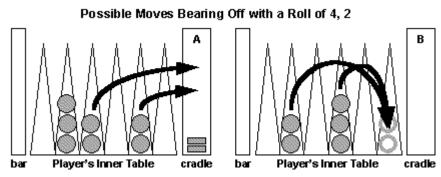
A player with one or more stones on the <u>bar</u> must roll off before moving any of the other stones on the board. To roll off a player must enter into the opponent's <u>Inner Table</u> on an exact roll. All other rules of <u>movement</u> apply. A player may greatly hinder an opponent by <u>blocking</u> as many <u>points</u> in his or her Inner Table as possible. Each point blocked in the Inner Table restricts the possibilities for the opponent to roll off and reenter the board. The diagram below illustrates a legal roll off the bar.



An Inner Table with all six points blocked is called a "closed board", and can be devastating to the opponent's game, since he or she will not be able to move until the player decides to uncover one or more points. In this case the opponent can only <u>pass</u> the turn until an opportunity to roll off presents itself. The player must take care when uncovering a closed board with the opponent on the bar, since the restrictions on <u>bearing off</u> into the <u>cradle</u> may force a stone to be left <u>open</u>, giving the opponent an opportunity to retake the game.

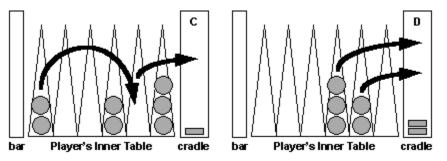
Bearing Off

When a player has <u>moved</u> all 15 of his or her stones into the <u>Inner Table</u> then the stones must be removed into the <u>cradle</u> by roll of the die. The rules for moving stones when Bearing Off are the same as those for moving on the board, with some added restrictions. Stones may be either removed into the cradle according to the numbers on the dice, or moved within the Inner Table. The player must take the entire roll, if possible, and must move the stone on the highest <u>point</u> if the number on the die is higher than the most distant point on which the player has stones remaining. The diagrams below show several legal moves when Bearing Off.



In A the player has stones on points 2 and 4 (relative to the cradle), and can remove one stone for each roll of the die. This is the best possible outcome, except for doubles, when a maximum of four stones can be removed. Removing as many stones as possible is important, especially if the opponent is bearing off at the same time.

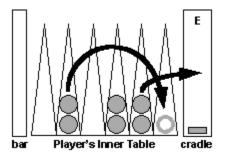
In B the worst possible outcome is realized. The player has stones on the 5 and 3 points, and so cannot remove any stones on a 4, 2 roll. In this case the best that can be achieved is to move two men closer to the cradle.



In C the player can remove one stone by taking the four roll, followed by the two roll. If a combination of moves allows at least one stone to be removed,

then it represents the best choice.

In D the player has men on the 3 and 2 points. One stone is removed on the two roll, and since there is no higher occupied point than 3, a stone is removed from that point for the four roll. This rule is intended to keep the bearing off process brisk, avoiding long waits for a particular roll.



In E the player has stones on the 2 point, but no stones on the 4 point. Thus only the stone from the 2 point can be removed. The four roll must be used by moving a stone from the 5 point four points toward the cradle.

Winning the Game

The game of Backgammon is won when one of the two players removes all 15 stones into the <u>cradle</u>. If the opponent has not removed any stones from the board, the player is said to have won by a "gammon". If the opponent has not removed any stones from the board and has at least one stone remaining in the player's <u>Inner Table</u>, the player wins by "backgammon".

The Doubling Cube

One of the few additions to the rules of Backgammon since Sir Edmund Hoyle codified them in the 18th century has been the doubling cube. It added another dimension of excitement to the ancient play of stones by providing for a doubling of stakes under certain conditions. This section describes the rules of the doubling cube. To see how the cube is played in MVP Backgammon see <u>Doubling the Stakes</u>.

A doubling cube is about 1/3 larger than a die. Printed on the 6 faces of the cube are the numbers 2, 4, 8, 16, 32, and 64. Each number represents a doubling of the stakes. If for example the doubling cube shows 4 on its top face then the wager for that game is multiplied by 4. Obviously this can have a dramatic effect in a high-stakes game! But who decides what the doubling factor will be?

At the start of a game the doubling cube is placed in the center of the <u>Bar</u>, with the number 64 showing. Placing the cube in the middle indicates that both players "control" the cube and may offer a double. The number 64 stands in for "no double yet." Doubles may be offered during a player's turn before the dice are rolled. Once an initial double has been offered control of the cube passes to the doubled player, and remains with that player until (and if) the player decides to "redouble." Control of the cube is indicated by placing it at the end of the bar nearest the controlling player's <u>table</u>.

When doubles are offered the player being doubled may accept or decline. These choices are often referred to as "take" and "drop." If a double is taken the doubling cube is turned to the new value, and control of the cube passes to the doubled player. If the double is dropped the game is forfeited to the doubling player at the current stakes.

The previous system is known as "voluntary doubles." An additonal twist comes in the form of "automatic doubles." When playing auto doubles the stakes double during the <u>roll for first turn</u> if both players roll the same die.

Expert players consider good doubling strategy to be essential to long-term success at Backgammon. Control of the doubling cube is a powerful advantage which can be used to gain greater winnings, force an opponent out of a game, or alter an opponent's strategy.

Playing MVP Backgammon

This section describes how to play MVP Backgammon from Cane Garden Software. For an <u>overview</u> of the game, and a discussion of the rules and <u>object</u>, see <u>Rules of the Game</u>.

Games and Matches in MVP Backgammon Starting a New Game Starting a New Match Loading an Existing Game/Match Saving an Ongoing Game/Match Continuing a Match Rolling the Dice **Using Manual Dice** Making Moves Using Multiple Rolls The Suggest Move Feature Seeing the Last Move Passing the Turn Taking Back a Bad Move Using Edit Mode <u>The Status Bar</u> Wagering in MVP Backgammon **Doubling the Stakes** The Crawford Rule The Jacoby Rule **Setting Options Claiming Victory** Resigning the Game **Quitting MVP Backgammon**

Games and Matches in MVP Backgammon

There are two ways to approach playing MVP Backgammon: games and matches. A single game is the quickest and easiest way to get started: you pick an opponent, roll for first turn, and play. You may wager or not, as you prefer. If you want to play a single game see <u>Starting a New Game</u>.

Matches, available in the registered version of the game, are the real test of strategy and skill in backgammon. Because so much depends on the luck of the roll it is often possible for a beginner to overcome a much better player in one game. That same beginner will have a harder time in a series of six games. If you would like to start a match see <u>Starting a New Match</u>.

Match play is different in several ways from playing a single game. First, there are more startup dialogs, since you have to specify some settings which apply to matches, but not to games. An example is the number of games or points for the match. Second, when a game ends during match play the program remaines in match mode, waiting for you to <u>start the next</u> <u>game in the match</u>. Third, if you wish you can enable the <u>Crawford Rule</u> or <u>Jacoby Rule</u> as an option.

Certain features of the game are not available during play, either single or match. Edit mode and Define Players are both disabled, as is the <u>Wagering</u> <u>Settings dialog</u> off of the <u>Preferences dialog</u>. You can still use Undo Move and Suggest Move.

The Crawford Rule

The Crawford Rule is a modern addition to the rules of <u>Doubling</u> attributed to the late great American Bridge and Backgammon player John Crawford. Under the Crawford Rule, when a player's point total moves within one point of the number needed to win the match, the following game will be played without the doubling cube. This game is known as "The Crawford Game".

For example, if you are playing a match to 9 points, and your opponent wins a game which brings his score to 8, then neither player may offer a double during the next game.

The Crawford Rule relates to wagering, and is available in the registered version of the game.

The Jacoby Rule

The Jacoby Rule is another late addition to the rules of <u>Doubling</u>. When the Jacoby Rule is in effect a <u>gammon</u> or <u>backgammon</u> scores only one times the current stakes unless the cube has been turned by either player or by an autodouble. This rule is intended to discourage "playing on for the gammon" during money play.

The Jacoby Rule relates to wagering, and is available in the registered version of the game.

Starting a New Game

To start a new game use the mouse to choose Games from the main menu at the top of the board, or type ALT-G. Note: MVP Backgammon requires a mouse; there is no keyboard interface for movement of game pieces.

When you select Games a pop-up menu displays the choices New, <u>Next</u> <u>Load</u>, <u>Save</u>, and <u>Quit</u>. Selecting New presents a second pop-up menu in which you choose whether to start a new game or match. Either choice brings up the <u>New Game Dialog</u>. If you are starting a match other dialogs will follow for adding the information needed. See <u>Starting a New Match</u> for more information.

When you are satisfied with the choices in the New Game Dialog, click on the OK button to close the dialog and start the game. The program arranges the playing stones for both players on the board, and then prompts player one to <u>roll for first turn</u>. In MVP Backgammon player one is always moving towards the <u>cradle</u> at the bottom of the board, while player two moves toward the cradle at the top.

Starting a New Match

To begin playing a match, click on Games from the main menu and choose New, then choose Match from the pop-up menu. Initially the program will display the <u>New Game Dialog</u> just as for new games, so that opponents and colors can be chosen.

The New Game Dialog is followed by the <u>Match Definition Dialog</u>, which defines the length of the match, the points needed to win the contest, and whether the <u>Crawford</u> or <u>Jacoby</u> rules apply.

The choices in the Match Definition Dialog depend on whether you have enabled Wagering in the <u>Match Settings Dialog</u>. The match point, and Crawford Rule controls are disabled if wagering is off.

Note that you can tell at a glance whether a match is in progress by looking at the caption bar for the main game window. During a match it will display the words "Match Play" immediately after the program title.

After you have defined the match the program displays the <u>Match Statistics</u> <u>Dialog</u>. Once this dialog is closed the first game begins.

Note that match play is available in the registered version of the game.

Loading an Existing Game/Match

MVP Backgammon allows games and matches to be <u>saved</u> for reloading later. To load an existing game or match choose the Load option from the Games menu at the top of the board window. You will see a standard Windows load file dialog box. Choose the saved game or match file that you wish to load, and MVP Backgammon will load the file and restore the game state.

MVP Backgammon detects match and game files based on their internal file structure, so the process of loading a file is identical for either matches or games. The default setting in the file I/O dialog boxes is to display files with the default game extension .BKG. If you wish to list match files choose .BKM files from the File Type listbox at the bottom of the dialog.

You may also load both games and matches by dragging the save file from File Manager, or Windows95/NT Explorer, onto the game window and releasing it. This works for both saved games and matches. If the file type is not recognized the drop is ignored.

An even quicker way to get a saved game or match up and running is to drag a saved file onto the program icon in Program Manager, an Explorer pane, or onto a shortcut icon on the desktop. MVP Backgammon will launch and load the saved file. As a byproduct of this feature you may also pass the path and name of a saved game or match as a command line parameter.

Saving an Ongoing Game/Match

MVP Backgammon allows ongoing games and matches to be saved for <u>loading</u> later. To save a game or match, choose Save from the Games menu at the top of the main window. You will see the standard Windows save file dialog box. Choose an existing save file, or type in the name of a new file. The default file extension for backgammon saved game files is .BKG, and the default for match files is .BKM, but you may choose any extension that you wish. If you choose an existing file you will be prompted before the file is overwritten.

Continuing a Match

In single game mode the game ends when one of the players is the first to remove all stones from the <u>Inner Table</u>. In match play the game ends, but the program remains in match mode, awaiting the start of the next game. If you use the <u>Options Menu</u> to open the <u>Match Statistics Dialog</u> after the game is ended you will see that the match is waiting.

Continuing the match is a simple matter of choosing Next from the <u>Games</u> <u>Menu</u>. The program will display the match statistics, followed by the start of the next game. Matches can be saved to disk between games as well as during play.

As a convenience a "Next Game" button appears in the match statistics dialog that appears at the end of each game in the match. Clicking on this button begins the next game in the series immediately.

Note that match play is a feature of the registered version of the game.

The Status Bar

MVP Backgammon uses a strip at the bottom of the board window, called a status bar, to communicate with the player(s). The status bar is divided into five areas. From the left they are the message area, die counter, name of currently moving player, pip count, and the current wager.

The message area is where the game displays prompts, explanation of menu choices, etc. It's use varies depending on what is currently happening in the game.

The die counter keeps track of the number of <u>rolls</u> remaining to the player currently <u>moving</u>. For example, if the player rolled a 4,2, the die counter will display a '4' and a '2', which will be removed as the player uses the rolls by moving <u>stones</u> around the board. The counter always represents the total real number of moves available to the player. So, for example, if the player rolls double sixes, four '6' characters will be displayed in the counter initially.

The player name area displays the name of the player currently moving.

The pip count field displays the pip counts for both players in the format player1/player2. The pip count is the cumulative distance of all a players stones from the home <u>cradle</u>, and is a rough indicator of the game's progress.

The current wager field is used during play when wagering is enabled. It shows the stakes for the game currently underway, reflecting any changes which occur through <u>doubling</u>. The wager is displayed as a number followed by the letter 'P'.

Rolling the Dice

At each <u>turn</u> the player whose turn it is to move rolls the dice to determine how many stones can be <u>moved</u>, and how far. In MVP Backgammon both players share a single set of dice kept in the <u>die cup</u> on the right-hand side of the board. The die cup is an active game control. When you pass the mouse cursor over the die cup during game play it may change to show that a certain action is expected. There are two actions that can be taken on the die cup: rolling the dice, and putting the dice away.

A player's turn begins with a roll of the dice. When it is your turn to roll (immediately after your opponent puts the dice away) the mouse cursor will change to a set of dice when passed over the die cup. Clicking on the die cup will cast the dice onto the board. If <u>sounds</u> are enabled you will hear the dice shaken. When the dice land on the board the two numbers showing are the player's roll for that turn. Unlike a real backgammon board this one cannot have a fault roll, which occurs when one or two die do not come to rest flat on the board.

Your turn ends when you have taken all of your moves. At this point the mouse cursor will show a set of dice with an arrow when passed over the die cup. Clicking on the die cup will put the dice away and let your opponent roll. When the opponent is the computer this happens very quickly.

Your turn may also end if you cannot take all of your moves, and have to <u>pass</u>. In this case the dice will be put away for you and your opponent will take a turn.

The only other interaction with the dice in MVP Backgammon occurs when you <u>roll for first turn</u>. Rolling for first turn is normally done in the <u>First Turn</u> <u>Dialog</u>. However, if the <u>Manual Dice</u> options menu choice is checked this dialog is replaced by a simple roll entry dialog.

Note that MVP Backgammon uses a sophisticated die mechanism which rolls the dice constantly in the background at a rate of about 18 rolls per second. This is an attempt to overcome some of the limitations of random number generation in computers by interjecting at least one truly random factor into the equation: the exact time at which you choose to click the die cup. Both players always use the same mechanism.

Using Manual Dice

The Options|Manual Dice menu choice allows the user to override the game's dice engine to enter rolls manually. The Manual Dice option is in effect whenever the menu choice is displayed with a checkmark.

There are two occasions when manual dice affect game play: when rolling for first turn, and when rolling to move. If the manual dice option is in effect before the game begins then the normal <u>First Turn Dialog</u> is replaced with the simple roll entry dialog described below.

If the manual dice option is in effect when rolling to move, the operation is a bit different for human and computer players. For human players the roll entry dialog is displayed when the dice tray is clicked as usual. For computer players the roll entry dialog is displayed when the computer player requests a roll.

If you are running the game with two computer players and manual dice you will be in a situation where the game will be either moving pieces, considering a move, or waiting for a roll entry. This makes access to the game menu difficult. In this case cancelling the roll entry dialog as described below will exit this condition and return to auto dice.

The Roll Entry Dialog is extremely simply, containing a number display and a button for each die. Clicking the buttons cycles through the numbers 1 to 6, and clicking the OK button accepts the values and continues the game. NOTE that clicking the Cancel button disables manual dice, and the normal dice roll method will be used for the current and future rolls, until the option is set again.

When the Roll Entry Dialog is displayed for the roll for first turn, the caption and control labels are changed to reflect the different mode of operation, where each dice represents one player. Otherwise the operation is identical.

Making Moves

After the dice have been <u>rolled</u> out onto the board, the game is waiting for the currently moving player to move his or her stones. The mouse cursor will change to a hand when over the playing area during this time. A stone is moved by picking it up with the mouse, moving it to a destination <u>point</u>, and releasing it.

To pick up a stone, place the mouse cursor over it and press and hold the left mouse button. If the pickup is legal the stone will snap to the mouse cursor, ready to be moved to a new position. If the pickup is illegal for whatever reason, i.e. there are no stones at the cursor location, the cursor location is occupied by the opponent's stones, or you have a man on the <u>bar</u>, the cursor will change to the form of an 'X', indicating that you cannot pick up a stone at the current location, and the <u>status bar</u> will display a message to that effect. Both the cursor and status bar will be restored when you release the left mouse button.

To move the stone simply keep the left mouse button pressed, and move the mouse cursor to the desired location. The stone will remain attached to the mouse cursor until you release the left mouse button.

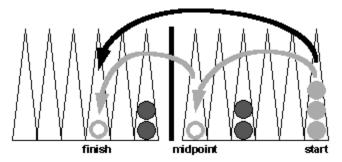
To drop the stone on a new point, release the left mouse button with the stone positioned over the point. If it is a <u>legal move</u> the stone will drop into position at the new location. Otherwise the stone will return to its last location, and the status bar will display a message concerning the illegal move.

As you move your stones the program validates each move as legal, and updates the status bar as the roll values are used up. When you have used all of the available rolls the mouse cursor will change back to an arrow, and the game will wait until you put the <u>dice</u> away. In cases where it is impossible either to move all of your roll, or to move at all, choosing to <u>pass</u> will hand control over to the other player.

Note that the computer player's <u>move generator</u> submits each of its move choices to the same validator as the moves made by human players. Neither type of player is allowed to make illegal moves.

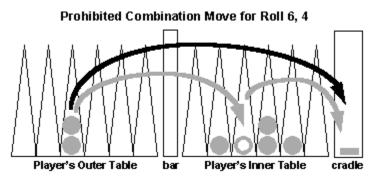
Using Multiple Rolls

It is possible to use multiple <u>rolls</u> to <u>move</u> one stone a longer distance than would be possible moving a different stone for each roll. Often the only possible move will be one involving moving the same stone for both rolls. In this case it is common for backgammon players to move the stone the full distance, without touching down at the midpoint. An example is shown in the diagram below.



The black arrow shows the move actually made by the player, while the gray arrows show the move the way the game sees it.

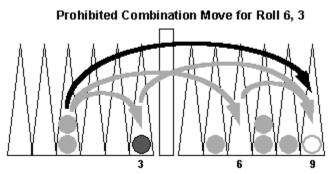
In most circumstances MVP Backgammon correctly handles such combination moves, decrementing the die counter according to the actual number of rolls taken. In two specific circumstances the game will not allow a combination move. The first occurs when moving the last stone into your <u>Inner Table</u> prior to <u>bearing off</u>. With the right roll, it is possible to move the stone into the inner table, and then remove it into the <u>cradle</u>. The game will not allow you to make the move as illustrated in the diagram below.



The move shown in the diagram is prohibited because a condition of removing stones, or bearing off, is that all stones be present in the Inner Table. Since the stone in this move never actually touches down in the Inner Table, the game does not see that the player can legally begin bearing off.

The second circumstance involves taking a combination move that would

have hit an opponent's stone on one of the possible midpoints, had you actually dropped the stone there. An example of this type of move is shown in the diagram below.



In this diagram the black arrow shows the move actually made by the player, while the gray arrows show the move in the two ways it can be seen by the game. In this case the game has no way of knowing whether you intended to hit the opponent's stone at point 3, or not, and so this type of move is prohibited. If you need to jump over an opponent's <u>open stone</u> then you must explicitly set your stone down at the midpoint.

Wagering in MVP Backgammon

In order to implement Match Play as faithfully as possible MVP Backgammon includes wagering for points in both matches and single games. As in a real tournament matches are played for some odd number of points (3-99 in MVP Backgammon), with each game worth one point to start. The number of points at stake in a game can be increased greatly through the use of the <u>Doubling Cube</u>. The number of points needed to win, along with the maximum number of games and other details are set in the <u>Match Definition Dialog</u>.

When wagering in a single game the game is worth one point to begin. All other aspects of wagering during matches apply, except that the results have no bearing on future games, since there are none.

MVP Backgammon can be played just as well with wagering enabled or disabled. Some players may like the extra dimension to match play that wagering and doubling provide, while others may simply want to play games. If you wish to change the wagering and doubling settings you may do so from the <u>Wagering Settings Dialog</u>.

Match play, wagering, and doubling are features of the registered version of the game.

Doubling the Stakes

The <u>Doubling Cube</u> is an important strategic feature in Backgammon. In MVP Backgammon the doubling cube is the large cube stored in the left (unused) <u>die cup</u>. When doubling has been enabled in the <u>Wagering Settings</u> <u>Dialog</u> the cube is placed in the center of the bar at the start of a match game, otherwise it remains stored in the die cup.

Computer players may offer to double according to the <u>rules</u> at the start of a turn. Human players indicate that a double is offered by clicking the Double menubar control, or by clicking the mouse on the doubling cube. Both controls are enabled at the start of a human player's turn when the player has control of the cube. The controls are disabled as soon as the dice are rolled. If either control is clicked the offer to double is submitted to the computer player for evaluation. A dialog will pop up giving the player's decision.

The stakes can also be doubled if a player wins a gammon, and in some matches tripled on a Backgammon. These and other options affecting doubling and <u>wagering</u> are accessed in the <u>Wagering Settings</u>, and <u>Match</u> <u>Definition</u> dialogs.

While MVP Backgammon is fun to play (in our humble opinions) in single game mode without wagering, we strongly urge you to try matches with wagering and using the doubling cube. The added interaction with your opponent extends the game immensely, as when he or she takes a turnabout advantage and offers a double just as you were poised to win the match. You'll be hard pressed not to start thinking of your opponent in human terms!

Note that match play, wagering, and doubling are features of the registered version of the game.

Using The Suggest Move Feature

At any time after the die have been <u>rolled</u> you can use the Moves menu to have the computer suggest a possible move. Click on the Suggest option under Moves, located on the main menu at the top of the board window, and the game will submit your remaining die roll(s) to the move AI and show the result on the board. The move is displayed as lines from the center of the piece to move, terminating in an ellipse on the destination point. The evaluator used for the suggestion is the Fiona neural network.

The mouse cursor will change from a hand back to an arrow at this time, and clicking the mouse anywhere in the game board will clear the suggested move and resume play. Note that Fiona may take quite awhile to evaluate certain rolls, such as double one's on a crowded board. This is simply a matter of evaluating 5000 or more potential moves. While the game is "thinking" the mouse cursor will be animated.

Seeing the Last Move

At any time after at least one player has moved one stone you can use the Moves menu to see the last move made. Click on the Show Last option under Moves, located on the main menu at the top of the board window, and the game will highlight the last move as green lines from the center of the stone, terminating in an ellipse on it's origin point.

The game will show all moves for a player up to the point where the next player moves one stone, which resets the mechanism.

The mouse cursor will change from a hand back to an arrow at this time, and clicking the mouse anywhere in the game board will clear the suggested move and resume play.

Passing the Turn

It is sometimes the case that a player cannot <u>move</u> an entire <u>roll</u>, either because of blocked points or other circumstances. Occasionally there is no sense in the player even rolling the dice. This occurs when the player has a stone on the <u>bar</u>, and the opponent has completely covered his or her <u>Inner</u> <u>Table</u>. In either case the player must pass the turn to the opponent. To do this click on the die cup to put away the dice. Control then passes to the other player.

A player may also be in a position where it is not even worth rolling the dice. This occurs when the opponent has all points on his or her inner table and hits the player, placing one or more stones on the bar. During simple game play this situation always results in "automatic passing." This simply means that the disadvantaged player does not get control of the dice until the opponent's table opens up.

During match play "automatic passing" can be inconvenient, since it does not allow the disadvantaged player to offer a double (which can only be done at the start of a turn). To correct this situation the Auto Pass option in the <u>Preferences Dialog</u> allows this behavior to be customized for match play.

Note that it is illegal to pass control when you have legal moves remaining on the board, and so the game will not allow passing in this situation.

Note that in some situations when the player has no apparent legal moves remaining it is still illegal to pass. These situations occur when the smaller of the die is taken in such a way that it becomes impossible to take the larger. Basically the rules state that you must always take both rolls if legally possible, and that if only one can be moved, it must be the larger if legally possible. Previous versions of the game did not enforce this rule. This has been corrected with release 1.3.

Setting Options

When the <u>Options</u> choice is selected from the main menu at the top of the game window the program displays the Preferences Dialog. From this dialog you can configure many of the game's options.

From the <u>Preferences Dialog</u> you may reach the following:

Wagering Settings

Graphics Settings

Sound Settings

Music Settings

Select MIDI Tracks

MCI Device Information

You can also set other options directly from the Preferences Dialog, such as Auto Roll, Auto Pass, Auto End Turn, and Auto First Turn. Once this dialog is closed by clicking the OK button the changes are permanent, and will be written to the file BACKG.INI. If you click on Cancel your changes are discarded.

Taking Back a Bad Move

All moves of individual pieces made during a single turn (one roll of the dice) are recorded. To take back a bad or mistaken move select the Undo Move menu choice from the main menu at the top of the board window. This choice is enabled when there are recorded moves, and disabled when there are no moves to undo.

The Undo Move feature operates between turns only. Once a player completes a turn all information about recorded moves is discarded. Note that if you have the <u>Auto End Turn</u> option enabled you will not have a chance to undo your last move, since your turn will end automatically, rather than waiting for the <u>die cup</u> to be clicked.

Using Edit Mode

Players may sometimes be interested in setting up a particular game scenario. Such scenarios are often called "playouts". MVP Backgammon has an admittedly limited means of creating custom playouts that is available when the game is being played in single game mode.

When in single game mode selecting Edit Mode from the <u>Options Menu</u> will place the program into Edit Mode. In this mode all game play is suspended, and the mouse cursor changes to a special 'E' shape with an attached arrow. In this mode the mouse can be used freely to alter the condition of the game by moving pieces around. The only moves prohibited are those which would break the game <u>rules</u>, such as placing two stones of different colors on the same <u>Point</u>.

Once you have finished editing the board layout pull down the Options Menu again. You will see that there is a checkmark next to the Edit Mode menu item. Click the item again to exit Edit Mode and return to normal game play.

Claiming a Game

When playing a match you may elect to "claim" the current game when the opponent's position is so hopeless that it is not worth the effort to continue. To claim choose the Claim menu choice from the Games Menu, and answer yes in the confirmation dialog. Note that the opponent is not consulted. This is what we call an Honor Feature.

Match play is a feature of the registered version of the game.

Resigning a Game

Occasionally when playing a match you may find that your position is so ridiculously bad that the only civilized choice is resignation. In these situations you may resign the game by selecting the Resign menu choice in the Games Menu. Resigning terminates the current game and reports it as a forfeit by you. The match continues with the next game.

Match play is a feature of the registered version of the game.

Quitting MVP Backgammon

Selecting the Quit menu choice from the main menu at the top of the board window while a game or match is running abandons the game or match, places all the game stones in their respective cradles, and restores the <u>status bar</u>. Selecting the Quit choice when no game is running exits MVP Backgammon. In both cases the player is prompted before the action is taken.

Managing Players in MVP Backgammon

Players in MVP Backgammon are divided into two groups: human and computer players. Each group is maintained separately in a database file located in the MVP Backgammon program directory. Player profiles are stored so that a history of the player's performance can be kept for reference, and also to allow games and matches to be started quickly.

When you receive the program the databases contain three computer players, expert, intermediate, and beginner, and a single human player named "Anonymous." Games can thus be played against the computer right away, without the need for learning the player management features (which are rather simple). If you want to jump right in click here: <u>Quick Start</u>.

Player management in MVP Backgammon consists of listing players, editing players, creating new players, deleting players, selecting players for a game or match, and resetting player statistics.

To see a list of currently defined players choose the Options|Define Players menu choice from the main menu at the top of the game window. This opens the <u>Player List Dialog</u>. In the Player List Dialog you can view the available human and computer players, <u>edit their profiles</u>, add new players, and delete existing ones.

The Player List Dialog is disabled when a game or match is underway. This is necessary to prevent changes to the profile of a player that is currently engaged.

Managing human players is a simple matter of choosing a portrait and then giving them a name; perhaps your own. Computer players add the need to choose which of the program's AI modules will be used to provide that player's "intelligence" during game play. In releases prior to 1.3 each computer player could have one of three skill levels, each of which started a different internal AI module. In release 1.3 the AI modules are separate from the main program, have names, and can be installed and uninstalled. Instead of setting the skill level you choose the AI module that you want the player to use. These AI modules are called evaluators. For more information see <u>The Manage Evaluators Dialog</u>, and the <u>Open Architecture Extensions</u>.

Technical Overview and Credits

MVP Backgammon was written using Borland C++ and the Microsoft Windows Software Development Kit, and extensively tested using Bounds Checker for Windows and Borland CodeGuard 16/32. Dialogs and other program resources were created using Borland's Resource Workshop. All artwork was created using Electronic Art's Deluxe Paint II Enhanced, with the exception of diagrams in the help system, which were produced in Microsoft Powerpoint, and touched up in Deluxe Paint IIE.

The program was written to take advantage of 256 color artwork, and so looks best when run with Windows in a 256 color video mode. See <u>Notes on</u> <u>Graphics</u> for more information on the game's graphics.

The program will run on computers with a 286 processor or better running Microsoft Windows 3.1, Windows NT 3.5x/4.0, and Windows 95. Memory requirements vary according to type of graphics in use, and other factors. Periodic memory useage may exceed 900 kilobytes, but should not exceed a sustained maximum of approximately 620 kilobytes, substantially less if 16 color graphics are in use.

For notes on the computer player move generation, see <u>Notes on Play</u> <u>Algorithms</u>.

MVP Backgammon was conceived, designed, and programmed by Mark Betz. The Fiona evaluator was written by Justin Boyan and Marc Ringuette. The Eval_G evaluator was written by Marc Ringuette.

MVP Backgammon's artwork was created by Mark Betz and Wes Gray.

The game is a production of David Snyder and MVP Software, publishers of Rings of the Magi, Infernal Tome, MVP Bridge, and other great games.

Special thanks to Bob Provencher of Aesir Software for assistance with the bitmap dragging routines, and various other invaluable ideas and assistance.

Special thanks also to Diana Gruber of Ted Gruber Software, for ideas on the implementation of the computer player's move generator, and general encouragement.

Lastly the value of this program would be much less were it not for the inclusion in it of the Fiona and Eval_G backgammon position evaluators, written by Justin Boyan and Marc Ringuette.

Notes on Graphics

MVP Backgammon was written with the express idea of creating something that took advantage of the growing number of 256 color video drivers available for Microsoft Windows 3.1. It was our thought that those who enjoy the game of Backgammon would enjoy it all the more if given an opportunity to play it on a realistic board, using textured playing pieces, and with realistic play mechanics.

We believe we have achieved many of these goals with MVP Backgammon, but some of them come at the price of program behaviour which is a bit different from what you might expect from a Windows application. This section will summarize and explain some of those differences.

The single largest difference in operation results from the use of bitmapped graphics to construct the playing surface. Bitmaps do not scale well, and bitmaps which employ a lot of colors, as these do, can barely be scaled at all. As a result the size of the window displaying the playing board is fixed in MVP Backgammon; there is no border by which it can be resized, and no maximize button. The window can be minimized to an icon, of course, but when displayed it will always be the same size.

A further consequence of bitmaps is that the playing surface, and size of the game window, appears to change with screen resolution. If you would like more control over the size of the game board in all screen resolutions the registered version of the game, MVP Backgammon Deluxe, comes with three board sizes, allowing an appropriate size in 640x480, 800x600, and 1024x768 screen resolutions.

The game does come supplied with 16 color graphics. If you can't or won't use a 256 color driver for Windows, then the game will run in 16 color modes. The graphics aren't as pretty, and there is no choice of playing piece textures.

Notes on Play Algorithms

This section describes the algorithms used to generate moves for the computer player. It will be of interest to those involved in game design, and also to anyone who thinks the computer may be cheating!

MVP Backgammon is an object-oriented program from design onward. During a game the controlling object is a Game object which receives all user input. Each Game has two Players. The Player abstraction is subtyped into Human and Computer player classes. A Game also has a Rules subobject which is responsible for validating moves for legality, and access to a Board subobject which is responsible for managing all of the graphic output.

To initiate a turn the Game passes a Dice object to the current Player object. The player then rolls the dice and moves. When a stone is picked up the Player object asks the Game to validate the pickup. A similar request is made when the stone is dropped. Each request is forwarded by the Game to the Rules object, which either validates or rejects the move.

When the Player object is a HumanPlayer the move selection and piece moving input is external. A ComputerPlayer simulates these actions by submitting the die roll and a copy of the current board map to a MoveGenerator object. The MoveGenerator's job is to generate all the possible moves that the computer player might make from the current board position, using the current roll. Each move is then fed into one of three evaluators which assign it a relative weight.

The dumbest evaluator is the Eval_B static evaluator, which plays the beginner logic in the game. Eval_B uses a linear function to weight certain features of the position. Eval_B knows how to move the stones well, but is very poor at strategy and handling the doubling cube. Next up the skill ladder is the Eval_G static evaluator, written by Marc Ringuette, which is similar in construction to Eval_B, but much smarter. It strategizes well, and handles the doubling cube about as well as it can be handled.

At the very top of the heap in MVP Backgammon is the Fiona evaluator, written by Justin Boyan and Marc Ringuette. Fiona is a monolithic backpropagation neural network which has been trained on more than 3 million games running on a Sun Sparc-10 workstation. Fiona plays an expert game, but would be considered a strong intermediate for tournament play. It strategizes much better than either of the other two evaluators, but only handles the doubling cube about as well as Eval_G.

Note that Fiona can sometimes take quite awhile to evaluate certain positions. For example, if Fiona rolls a 1-1 and the board is crowded it may

take several minutes to come to a decision. This is simple the result of evaluating many thousands of potential moves. While the game is "thinking" the mouse cursor will be animated.

Once all the moves have been tested the best is selected and submitted by the ComputerPlayer to the Game for validation, just as a move by a HumanPlayer is submitted. Moves from either player type are validated by the same module, and both players in the game utilize the same Dice object for their rolls.

The legality of the moves chosen by the MoveGenerator are checked at two levels. Level one is the internal logic of the generator. This logic differs conceptually from the logic at level two, the Rules subobject of the Game. The purpose of the Rules object is to detect illegal moves, while the purpose of the internal logic of the generator is to find only legal moves. The former serves as a check on the latter. If, due to an error in the program, the computer chooses an illegal move, a dialog box will be displayed. When the dialog is closed the computer's move will be retracted. As of this release we have not seen an illegal move by the computer in more than a year. If you do see this error the most likely cause is a corrupted game or match save file.

Why the Computer Can't Be Cheating!

Every now and then we receive a message from someone who is dead positive that the computer is cheating. The suspected malfeasance takes two forms: in one, the computer is getting better rolls more of the time; in another the computer is getting more information about the game.

Just to make it clear: THIS IS NOT POSSIBLE. AT ALL. EVER. UNDER ANY IMAGINABLE CIRCUMSTANCES NOT INVOLVING A DEITY.

Just why we can be so irritatingly certain of this is a little technical, but not very. On the matter of rolls of the dice it is simple: the human player and the computer obtain dice rolls from the same algorithm, implemented in the exact same binary code. There is no chance of the computer getting consistently better rolls just because it is the computer. The dice mechanism doesn't know whether the computer or the human is asking for a roll. There is, however, every chance of the computer getting better rolls for what may seem like dozens of games! This is the nature of randomness: things can randomly go well or ill, and it doesn't mean that in any ten games 5 will go well for the computer, and 5 for the human. The random distribution may not show up for 1,000 games, or 10,000.

On the matter of game information, it is a bit more complicated, but consider just what there is to know about a Backgammon game. There is the information that is visible, i.e. the board layout, dice values, doubling cube value, etc., and the information that is invisible, such as the opposing player's strategy in past games, the history of moves up to a given point, and so on.

In this the computer is at a distinct disadvantage compared to the human. All it has to work with is the visible information for the board at the point where a move is made. It knows nothing about its opponent, the history of the game, or anything else that isn't directly encoded in what you can see on the board.

We hope this makes the situation very clear: we would never write a computer game in which the opponent cheated, and in fact have engineered MVP Backgammon in such a way as to make cheating by the AI impossible.

About Cane Garden Software

On the North side of the island of Tortolla, in the British Virgin Islands, lies Cane Garden Bay. In the center of the bay's long curve, near the place where the rough track from Roadtown comes down steeply off the mountain, is a small cinder-block bar and grill with a lone tire hanging by a line from a huge palm, near the open wall that serves as a door. Across the track and back behind a small field of cane lies a 200 year-old stone structure where the Martin family has been making Arundel Cane Rum for as long as the building has been there. Each year the cane crop is pressed and the sugar juice distilled; the elixir packaged into various sundry bottles and glass containers which have been collected since the last bottling, and meticulously steam-cleaned. Arundel Cane Rum is a delicacy known throughout the Windward Islands. Its flavor is unlike anything that drinkers of mass-produced rums have ever experienced.

Cane Garden Software was formed in the secure knowledge that small groups of people working in a state of enchantment can create superior products, whether the end result is rum or software. MVP Backgammon represents our first offering for Windows, and we hope Backgammon afficianados enjoy playing it as much as we enjoyed creating it.

Cane Garden Software is committed to the shareware game industry, and also committed to the idea of fully-functional try-before-you-buy products. There are features in MVP Backgammon which are available only to registered users, but none of these represent critical functions of the game. All of those, including save games, are working in the unregistered version.

Cane Garden Software, Inc. Mark Betz, Proprietor Michele Betz, Actual Boss Emily and Sarah Betz, Dept. of Smeared Chocolate 76605.2346@compuserve.com

"I hear it gets better, that's what they say, as soon as we sail into Cane Garden Bay" - Jimmy Buffet

Music and Sound

MVP Backgammon uses the Windows Media Control Interface to provide both sound effects and background music. Since we recognize that we cannot possibly choose effects or songs which will please everyone we have attempted to provide you with as much control over what you hear while playing the game as possible. To find out more about how MVP Backgammon uses sound click on one of the topics below:

Sampled Sound Effects

MIDI Music

Sampled Sound Effects

MVP Backgammon uses sampled sound effects to enhance the experience of playing the game. There are over 1 megabyte of sampled sounds contained in the BKGSND.DLL resource file located in the program directory. When people see the size of the MVP Backgammon download they often wonder why a Backgammon game should be so large. The answer is not the program, but rather the sounds and 256-color graphics that it uses.

Sampled sound will play if your computer has hardware that can be used to output it. A Sound Blaster or equivalent card capable of playing 8-bit samples is ideal. Some users may have PC speaker drivers installed as the Waveform sound driver for their Windows system. Samples will play on these systems, but the quality will be very low.

Sound effects can be enabled or disabled entirely in the <u>Sound Settings</u> <u>Dialog</u>. This dialog can also be used to choose the events that MVP Backgammon will attach sounds to.

MIDI Music

MVP Backgammon uses MIDI music output to help create a relaxing atmosphere for game play. Consistent with the medieval feel of the game board and computer players the music is Baroque. A selection of tracks is provided, and users may also add any Windows MIDI Mapper compatible General MIDI files to list of tracks to be played.

The program contains an engine which plays a list of MIDI tracks continuously as long as play is enabled. Music output can be enabled and disabled entirely from the <u>Music Settings Dialog</u>, and this dialog also gives access to the <u>Select MIDI Tracks Dialog</u> which can be used to customize the play list to the user's taste.

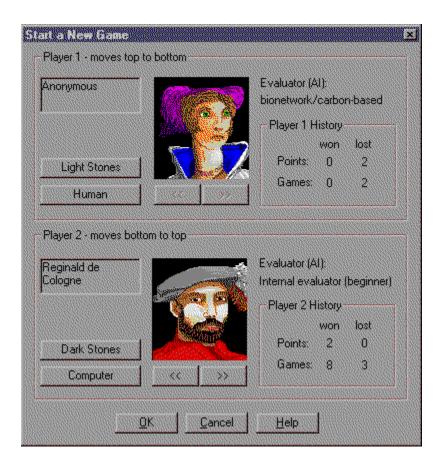
NOTE: Music is enabled if the user's system has hardware which can play MIDI music files. Typical hardware includes MIDI output devices such as the SoundBlaster AWE-32, Roland LAPC-1 or CM-32L, the Pro Audio Spectrum from MediaVision, and other cards, both MIDI synthesizers and less expensive FM waveform generators. Information on setting up Windows to play MIDI files can be found in the Windows 3.1 documentation.

The Windows Media Control Interface (MCI) provides a high-level set of control messages which a program can use to operate devices such as a MIDI output device. The functionality of the MCI is entirely implemented by the drivers which ship with popular sound cards, and these implementations vary significantly from one manufacturer to another. We believe MVP Backgammon will operate properly with most hardware/driver combinations; should you experience problems please see the note below, and verify that Media Player can correctly play the files BG1.MID, BG2.MID, and BG3.MID before contacting Cane Garden Software or MVP Software about the problem. Media Player can be found in the Accessories program group in Windows 3.1, and in the Programs|Accessories|Multimedia menu of the taskbar in Windows 95/NT.

IMPORTANT: For best results the output port for the MCI Midi Sequencer should be the MIDI Mapper which ships with Windows 3.1/95/NT. The Mapper is designed to manage "patches", or sounds assigned to various instruments, across different MIDI hardware installations. MVP Backgammon does not check to see if the MIDI Mapper is the assigned output port. The specifics of a Windows MIDI installation are not something that the program has any control over. x

New Game Dialog

The New Game Dialog contains controls for defining the opponents in a game. It is separated into two areas, with the controls for player 1 at the top, and those for player 2 at the bottom. In addition to the player controls the dialog also contains the standard Ok, Cancel, and Help buttons.



The player controls allow you to select a player from the computer or human profile lists, define the color of stone the player will move, and view the player's current statistics. Players are selected by clicking on the arrows located directly beneath the player portrait. Clicking the left arrow moves you back in the list, while clicking the right moves you forward. The list used is selected by clicking on the player type button. This button displays "human" if the player profile is for a human, or "computer" if it is a computer player. The button toggles between these two states when clicked. The dialog will remember your last position in each list.

To select the stone color the player will move click on the color button. This

button displays "light" if the player will move the lighter colored stones, and "dark" if the darker stones will be used. When you click on this button for one player the other player's button also toggles.

When you are satisfied with the information in the New Game Dialog, close it by clicking the OK button. Note that if you Cancel out of the dialog at this point the game is abandoned. The upper set of controls define which player in either the computer or human player database will be used for player 1 in the game. Player 1 moves counter-clockwise from top to bottom. The lower set of controls define which player in either the computer or human player database will be used for player 2 in the game. Player 2 moves clockwise from bottom to top. The name of the current human or computer player selection is displayed in this area. Names cannot be edited here. Player characterstics are defined in the player edit dialogs under Options | Define Players.

The player color buttons define which player plays which color of stones, light or dark. Clicking the button for either player toggles both buttons. By default player 1 plays the light stones, while player 2 plays the dark.

The player type buttons determine whether a player is human or computer controlled, and also select the player database from which player profiles are taken. Type is set individually for each player, and there are no restrictions: either or both players may be computer or human controlled. You can set both to computer and watch the machine play itself. Choose two computers with different skill levels and compare the performance of the three move evaluators used in the game. Every human and computer player in the database is associated with a portrait. This area shows the portrate for the current player selection. Portaits cannot be selected here. Player characteristics are defined in the player edit dialogs under Options | Define Players.

The player selection arrows move you back and forth in the player database. The database used depends on whether the player type button is set to human or computer. Players cannot be added or removed from the database here. Player management is performed in the player edit dialogs under Options | Define Players. Each computer player in the program database has an evaluator associated with it. This is a module to which the player submits possible moves for ranking. It is the heart of the program's "AI". Note that the evaluator assignment for the Computer player cannot be changed here. Player characteristics are set in the player edit dialogs under Options | Define Players. To get information about available evaluator modules use the Manage Evaluators Dialog.

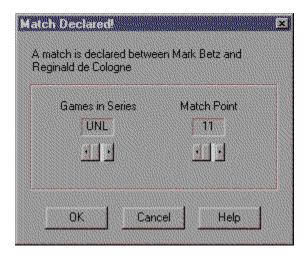
Each player in the human and computer database has a match-play history which the program tracks. The match-play history consists of the total number of games and points won or lost. Match history can be reset in the player edit dialogs under Options | Define Players. Click this button when you have finished selecting the players for the game.

Clicking this button will cancel the new game and return the program to its startup state.

One potential mechanism for getting to this help page.

Match Definition Dialog

The Match Definition Dialog is displayed right after the New Game Dialog when a match is starting. It allows the player to define several aspects of how the match will be run. Match play is available in the registered version of the game.



The Games control sets the number of games to be played in the series. Click on the down arrow to descrease the total, or the up arrow to increase it. Normally with <u>wagering</u> enabled this control will be set to its lowest setting, 'UNL', which means that the match will be played until one player reaches the match point, regardless of how many games it takes. If this control is set to anything other than 'UNL' then the match will terminate after the set number of games has been played. If you simply wish to play an unlimited series of games set the games limit to UNL and turn wagering off in the <u>Match Settings Dialog</u>.

The Match Point control adjusts the number of points needed to win the match. This control is active only if wagering is enabled. Click on the up arrow to increase the amount, or the down arrow to decrease it. Holding down the mouse button on either arrow will eventually cause the total to increase or decrease faster.

Thus there are effectively two ways to play a match: either as a point match which ends when a player accumulates the needed points or the set number of games is played, or a best-out-of match which ends when a set number of games have been played. The criteria for winning the match are different in each case. In the point match it is either the player who accumulates the needed points, or the player who has the most points when the match ends, or the player with the most wins if it is a point tie. In best-out-of play it is the player with the most wins.

Clicking on OK when you are through will accept the information in the dialog. Note that clicking Cancel in this dialog will abort the match.

This area describes the match, and who is playing it.

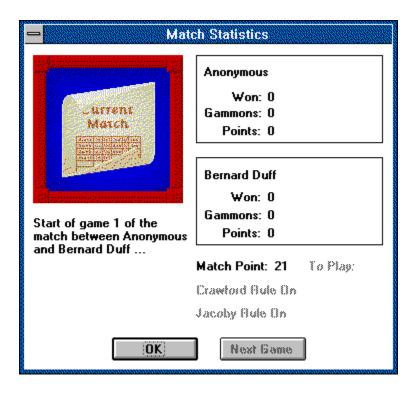
This control sets the number of games that will be played in the match. Use the up and down arrows to adjust the total. To play a match to match point regardless of the number of games, use the down arrow until the edit control reads 'UNL'. This control sets the number of points, or the 'match point', which will terminate the series of games that make up a match. This control is enabled only when wagering is ON. Click this button when you have finished setting up the parameters of the match.

Clicking this button cancels the new match and returns the program to its startup state.

One potential mechanism for arriving at this help page.

Match Statistics Dialog

The Match Statistics Dialog displays information about the current state of a running match. It is displayed automatically by the program at the beginning of a match, the beginning and end of a game in a match, when a match is restarted from disk, and when the match ends. It can be displayed by the player at any time when a match is active by choosing Match Statistics from the <u>Options Menu</u>. Match play is available in the registered version of the game.



The Match Statistics Dialog displays information about each player. This includes the player's name, how many games of the current match the player has won, how many of those have been gammons, and how many points the player has accumulated.

In addition the dialog displays the number of games remaining in the match, if applicable, and a description of the current state of the match, which is located directly below the graphic at upper left.

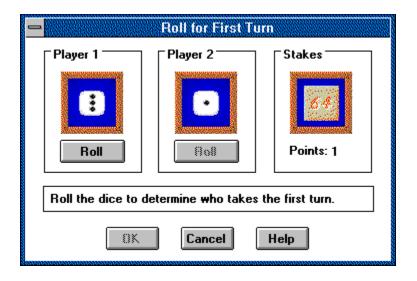
Were this reality, instead of a game, the tally of the match would be written on this crinkly bit of parchment. This area describes the current status of the match when the match statistics dialog is displayed. The match statistics dialog is displayed at the beginning and end of every game in a match, and may also be displayed on request by choosing Options | Match Statistics.

These areas display the fortunes of each player as the match progresses. Progress is displayed in three categories: number of games won, number of gammons, and number of points won. This area displays certain parameters of the match. If the match is being played to a game limit then the number of games remaining to be played is shown here to the right of To Play. If the match is being played to some number of points, then that number is shown to the right of Match Point. If the Crawford or Jacoby rules are enabled then their tags are black, otherwise they are greyed. Click this button when you are finished reading the match statistics.

When the match statistics dialog is displayed at the end of a match game, clicking this button will start the next game in the series. If you close the dialog by cliking OK then the next game can be started by choosing Games | Next.

First Turn Dialog

According to the rules of Backgammon, the two players must roll single dice to determine who will take the <u>first turn</u> of the game. The First Turn dialog is displayed for this purpose immediately after a wager is chosen for a match with <u>wagering</u> enabled, or right after the New Game Dialog is closed for a game or match with no wagering.



The dialog is comprised of four areas: two player dice at right and middle, the wager/doubling cube area to the left, and a prompt box at bottom.Each player dice area displays a single die. Beneath the picture of the die is a button labelled "Roll". Players roll the die in sequence, with player 1 rolling first. When the dialog first appears only player 1's Roll Button is enabled. After player 1 rolls, if player 2 is a human then the player 2 Roll Button will be enabled. If player 2 is a computer player then the dice will roll automatically.

If the two players roll separate values the OK button will be enabled, and the dialog can be closed. If the two players roll the same the dialog resets and the players roll again. The Cancel Button can be used to close the dialog at any time, abandoning the game or match.

The third area of the dialog displays the doubling cube and the value of the current wager. If <u>Automatic Doubling</u> is enabled and the two players get the same roll, the program will double the stakes, and the change will be reflected in the doubling cube and wager amount.

These two controls allow player 1 and player 2 to roll the dice for first turn. The dice are rolled by clicking on the Roll button, and the outcome is displayed within the wood-grain frame. Players may roll in any order, but both must roll before the dialog can be exited by clicking OK. If either player is a computer player that player's control is disabled, and the player will roll automatically after the human player has rolled. If both players are computer players the roll is calculated by the game and this dialog is not displayed. When wagering is enabled, and doubling is set to Automatic, this control displays the wager and current state of the doubling cube after each automatic double that occurs. An automatic double occurs when both players roll the same number on the roll for first turn. Doubling options are set in the Wagering Settings dialog under Options | Preferences.

This control displays status prompts from the game which indicate what action is expected next.

Click this button when you are finished rolling for first turn. The button is disabled until both players have rolled different numbers and the outcome is decided.

Clicking this button cancels the new game or match and returns the program to its startup state.

One potential mechanism for arriving at this help page.

Preferences Dialog

The Preferences Dialog is displayed when the user chooses the Preferences menu item from the <u>Options Menu</u>. It allows many of MVP Backgammon's features to be customized to suit individual players.

Preferences		×
Settings Auto Roll		Wagering
Auto Pass		Graphics
Auto First Turn Auto End Turn		Sound
	-	Music
Computer Move Speed		
▲		Fonts
Slow	Fast	
ОК	Cancel	Help

The dialog is composed of two areas, a set of settings checkboxes on the left, and five buttons on the right. The checkboxes affect option settings directly, while the buttons display additional dialogs to configure specific areas of the program. The four Settings Checkboxes control how the program manages turn rounds, and whether certain features are enabled. In addition a slidebar control used for adjusting the computer's move speed is located at the bottom of the dialog.

The Auto Roll Checkbox determines whether the player clicks the <u>die cup</u> to roll the dice. When this option is enabled the game rolls the dice automatically when the opponent ends a <u>turn</u>. This option is off by default, and has no effect on match play, since it would effectively disable doubling.

The Auto First Turn Checkbox determines whether the players use the <u>First</u> <u>Turn Dialog</u> to determine who will take the <u>first turn</u>. When this option is enabled the program will roll for first turn internally, and inform the player who won. This option is off by default.

The Auto End Turn Checkbox determines whether a player clicks the die cup to put the dice away at the end of a turn. When this option is enabled the program detects the last move, and puts the dice away automatically. This options is off by default. Note that enabling this option effectively renders Undo Move useless for the final move of a roll.

The Auto Pass Checkbox determines how the game handles turn progression when one player cannot roll (i.e., the player is on the bar facing a closed inner table). When this setting is on, the opponent continues to roll until the table is opened. When this setting is off, the barred player must explicitly roll and pass. This allows the player a chance to offer a double even while on the bar. Note that this option now takes precedence over the wagering settings.

Four of the five buttons on the left side of the Preferences Dialog access the following special Settings dialogs:

<u>Wagering Settings</u> <u>Graphics Settings</u> <u>Sound Settings</u> <u>Music Settings</u>

The Wagering Settings and Graphics Settings dialogs are disabled in the shareware version of the game. In the registered version these buttons allow the wagering options, as well as board and piece style and size to be customized.

The Fonts button allows the user to change the default font that the game uses to display the messages and game information in the status bar. Choosing this button displays a standard system font dialog. Choices you make in the font dialog are not permanent until the Preferences Dialog is closed by clicking on 'Ok'. If you choose a font which displays in a different size than the existing font choice the status bar will adjust itself. Note that fonts are saved per board size. That is, the font choices you make in this dialog are used for the current board size. Note also that the program will not allow both board size and font to be changed. If the board size is changed any font changes will be ignored.

Note that the information in the status bar will not always fill the entire bar. If you choose a small font, or one large enough that the bar is broken into two or more lines, then there will be space left over.

This group of controls affects certain optional behavior on the part of the game program.

When the Auto Roll option is checked the dice cup does not have to be clicked to roll the dice at the start of a human player turn. Instead the game detects when the last player's turn ends and rolls the dice automatically. Whether the option is checked or not it is disabled during match play when wagering is on, since a player may only offer a double after receiving control of the board but before rolling. When the Auto First Turn option is checked the game does not display the Roll For First Turn dialog. Instead the roll is calculated internally and the results are displayed before the game starts.

When the Auto End Turn option is checked the dice cup does not have to be clicked to end the player's turn after all moves have been taken. The game detects when the last move is taken and automatically ends the turn. Note that this effectively prevents a player's use of the Undo feature to undo the last move taken. Affects play with wagering and doubling. When this setting is on and a given player cannot move because he or she is on the bar facing a closed inner table, the opponent will continue to roll until the board opens up. When this setting is off the disadvantaged player will have a chance to offer a double, but will have to roll and pass explicitly. This control adjusts the speed with which the computer moves pieces around the board. The default is approximately the middle of the range, which on a Pentium 133 is nearly too fast to see. Adjust the slider using the arrows or by dragging with the mouse if you desire a faster or slower movement. This button opens up the Wagering Settings dialog.

This button opens up the Graphics Settings dialog.

This button opens up the Sound Settings dialog.

This button opens up the MIDI Music Settings dialog.

This button opens up a dialog where the font used in the status bar can be customized. Use this dialog if you change the board size and want to adjust the font so that the status bar fits neatly along the bottom of the board. The status bar resizes automatically when the font is changed. Click this button to accept any changes made and close the preferences dialog box.

Click this button to undo any changes made and close the preferences dialog box.

One potential mechanism for arriving at this help page.

Wagering Settings Dialog

The Wagering Settings Dialog controls the playing parameters of <u>games and</u> <u>matches</u> in MVP Backgammon with regard to betting and the doubling cube. This dialog is disabled in the shareware version.

Wagering	2
- Game Settings	
Wagering: C On	Contrins
• Dif	Automatic
E Jacoby Pole	
Match Settings	
Wagering: 💿 On	Doubling
C Off	Automatic *
Jacoby Rule	Crawford Rule
Rule Warnings	
🔽 Jacoby Warning	Crawford Warning
ОК Са	ancel Help

The dialog is divided into three groups, the top two of which contain almost the same set of controls. The upper group controls settings during game play, while the middle group controls settings during match play. The only difference is the lack of a Crawford Rule control for game settings. Otherwise the operation of the two groups is identical.

The Wagering On/Off Radio Buttons determine whether <u>wagering</u> is enabled for game or match play. If the On button is checked then wagering is enabled, otherwise wagering is disabled. This option is on by default.

The Doubling Radio Buttons select the type of <u>doubling</u> to be used in play when Wagering is on. None selects no doubling of the stakes, Voluntary selects voluntary doubling, and Automatic selects automatic doubling. This option is set to Automatic by default. Finally there are controls to enable or diable the <u>Crawford</u> and <u>Jacoby</u> rules. Note that the Crawford Rule, which affects doubling during match play, is not available in the game settings.

The lower group contains two controls which enable or disable rule warnings during match or game play. A rule warning consists of a message box which appears when the rule is triggered. So, for example, when the Crawford rule is triggered a message appears as the Crawford game begins. More experienced players may want to disable these warnings, whereas newcomers will need to know why the behavior of the game changes at certain times. This control determines whether wagering is enabled during game or match play.

This control determines the type of doubling that is used during game or match play when wagering is enabled. When None is selected doubling is disabled and the cube is inactive. When Voluntary is selected doubling takes place only when a player offers a double during a game. When Automatic is selected doubling is as for Voluntary, plus automatic doubles can occur during the roll for first turn. This control enables or disables the Jacoby rule for match or game play. The Jacoby Rule states that if the doubling cube is not turned in a game a gammon is worth only 1x stakes.

This control enables or disables the Crawford Rule for match play. The rule states that when either opponent in a match reaches match point less one the next game shall be played without a doubling cube.

This control enables or disables the message box that appears when the Crawford Rule is triggered during match play.

This control enables or disables the message box that appears when the Jacoby Rule is triggered during match or game play.

Click this button to accept any changes made and close the match settings dialog box.

Click this button to undo any changes made and close the match settings dialog box.

One potential mechanism for arriving at this help page.

Graphics Settings Dialog

The Graphics Settings Dialog controls the graphics used to display the various images used in MVP Backgammon. These options are only available if the game is running on a Windows system with an 8-bit (256 color) driver installed. See <u>Notes on Graphics</u> for more information. This dialog is disabled in the shareware version.

Stones Style	Board Style	Board Size		
Wood O	Stiched Leather 🖲	Small 🔿		
Composite 🖲	Inlaid Wood O	Medium 🛞		
Stone 🔾	Inlaid Stone 🛛 🔾	Large 🔾		
OK Cancel Help				

The Stone Style Radio Buttons select the style of playing stone used in the game. There are three styles to choose from.

The Board Style Radio Buttons select the style of playing board used in the game. There are three styles to choose from.

The Board Size Radio Buttons will select the board size used in the game. There are large, medium, and small boards available. This control allows selection of the bitmap used to represent playing stones. There are three bitmaps currently available in all board sizes: wooden, composite plastic, and carved stone. This control allows selection of the bitmap used to represent the board and playing surface. There are three bitmaps available in all board sizes: stiched leather, inlaid wood, and inlaid stone.

This control allows selection of the board size that will be used. There are large, medium, and small boards available. Small and medium boards will display in all popular Windows graphics modes. Large boards require at least 800x600 screen resolution.

Click this button to accept any changes made and close the graphics settings dialog box.

Click this button to undo any changes made and close the graphics settings dialog box.

One potential mechanism for arriving at this help page.

Sound Settings Dialog

The Sound Settings Dialog controls whether sounds are used in the game, and what events sounds are attached to. Sounds in this case refers to sampled sound effects, such as applause, glass breaking, etc. See the <u>Music Settings Dialog</u> for information on controlling music. See <u>Music and Sound</u> for a general discussion of the use of sound and music in MVP Backgammon.

_ Sounds ───	Events				
On 💿	Roll Dice 🛛	Double Stakes 🛛			
Off O	Drop Stone 🛛 🖂	End Program 🛛 🛛			
	Hit Opponent 🛛 🖂	Race Game 🛛 🛛			
Full	Escape Bar 🛛 🖂	Abandon Game 🛛			
	Roll First Turn 🛛	Bad Drop 🛛 🖾			
Quiet	Game Start/End 🛛	Bad Pickup 🛛 🛛			
	Match Start/End 🛛	Gammon 🖂			
<u>M</u> oves					
OK Cancel Help					

The Sound On/Off Radio Buttons enable or disable all sound output. This option is enabled by default.

The Sound Events Checkboxes enable or disable the various events that the program detects and attaches sounds to. The following events can be toggled on or off:

Roll Dice Drop Stone <u>Hit Opponent</u> Pass Turn Escape Bar Roll First Turn Game Start/End Match Start/End Double Stakes End Program

Race Game Undo Move Abandon Game Bad Drop Bad Pickup Gammon

If you don't want to control the sound individually you can use the settings buttons located at the left side of the dialog to set groups of events. Clicking on Full turns everything on, while clicking on Quiet turns on only move indicator sounds, such as the click of pieces on the board. Clicking on Moves enables yet a different group of sounds. If you find that a particular sound bugs you simply disable the event that causes it. Enables/disables the sounds that play when the dice are rolled.

Enables/disables the sounds that play when a stone is dropped on the board.

Enables/disables the sounds that play when a stone is hit.

Enables/disables the sounds that play when a player passes a turn.

Enables/disables the sounds that play when a stone moves off the bar.

Enables/disables the sounds that play on entry to the Roll First Turn Dialog.

Enables/disables the sounds that play when a game starts and ends.

Enables/disables the sounds that play when a match starts and ends.

Enables/disables the sounds that play when the stakes are doubled.

Enables/disables the sounds that play when the program terminates.

Enables/disables the sounds that play when the board is such that players can no longer threaten each other. This condition is known as a race. Enables/disables the sounds that play when the Undo Move option is used.

Enables/disables the sounds that play when a game is abandoned.

Enables/disables the sounds that play when a player attempts an illegal pickup from the board.

Enables/disables the sounds that play when a player attempts an illegal drop to a point.

Enables/disables the sounds that play when a player achieves a gammon.

This control allows the use of digitized sound to be turned off or on.

When digitized sounds are on this control allows specific sound events to be enabled or disabled. A sound event is enabled when the checkbox to the right of its description is checked. Clicking this button enables all sound events.

Clicking this button enables a quiet subset of sound events.

Clicking this button enables only those sound events associated with moves.

Click this button to accept any changes made and close the sounds settings dialog box.

Click this button to undo any changes made and close the sounds settings dialog box.

One potential mechanism for arriving at this help page.

Music Settings Dialog

The Music Settings Dialog controls MIDI music output in MVP Backgammon. For a general discussion of the use of sound and music in the game see <u>Music and Sound</u>.

- Music Settings			
[Music			
0n ()	Select Tracks		
Off 🔍	Device Info		
Track:	.ett Volume		
+			
Low Right Volume High			
*	*		
£.0%	High		
0K	Help		

The Music On/Off Radio Buttons enable or disable MIDI music output. This option is enabled by default if the required harware is present, and the Windows installation has a MIDI Sequencer driver available.

The Track field shows the currently playing track, if any.

The Right and Left Volume Sliders are enabled if the MIDI device supports volume changes. The volume may be adjusted for both channels using these sliders, or for single-channel volume using the left-channel slider.

The Select Tracks Button opens the <u>Select MIDI Tracks Dialog</u>. When this dialog is opened any music output stops until it is closed.

The Device Info Buttons opens the <u>MCI Device Information Dialog</u>. This dialog displays information about the active MCI MIDI Sequencer being used by the game program.

This control allows the playing of MIDI music as background during the game to be turned on or off.

These two controls allow the volume to be adjusted for the Right and Left channels of MIDI music. They are enabled if supported by your hardware and Windows installation... and if everything goes right, which it sometimes does not. Clicking this button opens up the MIDI track select dialog.

Clicking this button opens up the MIDI Sequencer device information dialog.

This control displays the currently playing track when music is on.

Clicking this button closes the music settings dialog. Changes in this dialog take effect immediately, so there is no Cancel button.

One potential mechanism for arriving at this help page.

Select MIDI Tracks Dialog

The Select MIDI Tracks Dialog allows the user to configure the musical selections played while the program is running, and the order in which they are played. The dialog contains a standard Windows-style Transfer Box. A Transfer Box is two list boxes side-by-side, with buttons between them which can be used to move selections from one list to the other.

Select MIDI Tracks		×
Don't Play		Play
	$\underline{A}dd \rightarrow \rightarrow$	Canyon The Bridge at Killeigh
	A <u>d</u> d All >>	The Battle of the Hill To Horse for the Quee
	<< <u>R</u> emove	
	<	
<u>0</u> K	<u>C</u> ancel <u>N</u> ew	De <u>l</u> ete

In this dialog the buttons are used to move tracks from the Don't Play list on the left to the Play list on the right, or vice-versa. The four buttons are Add, Add All, Remove, and Remove all.

Add and Add All move tracks from the Don't Play list to the Play list. Add moves only those tracks currently highlighted in the Don't Play list, while Add All moves all tracks. Tracks are highlighted in either list by clicking them with the mouse. Multiple tracks may be highlighted.

Remove and Remove All move tracks from the Play list to the Don't play list, and function exactly as the Add and Add All buttons described above.

Tracks in the Play list will be played continuously starting with the top track and moving to the bottom. Once the tracks are set up the user can accept the current lists by clicking the OK button. Clicking on Cancel discards any changes made to the lists. Note that if all the tracks are removed from the Play list the program disables musical output.

In addition to moving tracks between the lists, the user can add or remove tracks from either list using the New and Delete buttons. Think of the set of tracks in both lists as a pool of tracks which are divided between play and don't play lists as described above. The New and Delete buttons allow tracks to be added to or removed from this pool.

Selecting New displays the <u>Add MIDI Track Dialog</u>. In this dialog the user can enter the file path of a MIDI track on the system disk, and also a name for display in the lists. The track will be added to the currently active list. If no name is given the name will be formed from the disk file name.

Selecting Delete removes the currently highlighted track from either list. The Delete button is only active when a track is highlighted.

This list box shows the list of MIDI tracks that will not be played as part of the repeating sequence of background music.

This list box shows the list of MIDI tracks that will be played as part of the repeating sequence of background music.

This button is enabled when a track name is selected in the Don't Play listbox. Clicking it moves the track over to the Play listbox.

This button is enabled whenever there are any tracks listed in the Don't Play listbox. Clicking it moves all tracks over to the Play listbox.

This button is enabled when a track is selected in the Play listbox. Clicking it moves the track over to the Don't Play listbox.

This button is enabled whenever there are any tracks listed in the Play listbox. Clicking it moves all tracks over to the Don't Play listbox.

Click this button to accept all changes and close the MIDI track select dialog box.

Click this button to undo all changes and close the MIDI track select dialog box.

This button opens the Add MIDI Track Dialog, allowing new tracks to be added to the play management lists.

This button is active when a track is highlighted in either list, and allows the track to be deleted from the play management lists.

Add MIDI Track Dialog

The Add MIDI Track Dialog allows the user to specify the name and disk file path of a new MIDI track to be added to the play management lists. The new track may be any General MIDI track configured for the Windows MIDI Mapper.

Add MIDI Track		×
Track List Nam	ne:	
Track File Path	h:	
<u>OK</u>	<u>C</u> ancel	<u>B</u> rowse

There are two edit fields in this dialog. The Track List Name edit provides space for the list display name of the track. This is the text that will show up in the play management lists. If no name is supplied the display name will be formed from the file name.

The Track File Name edit receives the full path and name of the track file on the system disk. This field is mandatory. The path can be typed in manually, or the user can select the Browse button and use a standard Windows file browsing dialog to find the track.

Once the new track information has been specified clicking OK will close the dialog and add the track to the currently active play management list. The Browse button opens a standard Windows file browser dialog, in which the user can locate a MIDI file on disk. When the dialog is closed the Track File Path edit is filled with the selected path and file name. Selecting the Cancel button disgards any information entered in the dialog and returns the user to the Select MIDI Tracks Dialog.

Selecting the OK button accepts the information entered in the Dialog.

This edit is for the full path to the new MIDI file on the system disk.

This edit is for the list display name for the new track. If no display name is given one will be formed from the file name.

MCI Device Info Dialog

The MCI Device Information Dialog displays information about the MCI MIDI Sequencer device currently in use by the program.

Player List Dialog

The Player List Dialog is opened by choosing Define Players from the <u>Options Menu</u>. It lists the available players from the BACKG.CPL and BACKG.HPL files stored in the program directory.

Available Players	
Annalise Reginald de Cologne Bernard Duff	
<u>C</u> omputer	
<u>OK A</u> dd <u>D</u> elete Edit	

To select whether Computer or Human players are listed click on the player type button located directly below the listbox. This button displays the current player type and toggles when clicked. Once you have the list you want there are several actions you can take:

Clicking on Add opens the <u>Add Players Dialog</u>, where a new player profile can be defined and stored in the database.

Clicking on Edit opens the <u>Edit Players Dialog</u> for the currently highlighted player in the list. All of the characteristics of a player can be changed in this dialog. The Edit dialog can also be opened by double-clicking the name of a player in the listbox.

Clicking on Delete removes the currently highlighted player from the file. The program will prompt to confirm the deletion before taking action. Since some actions in this dialog, like Delete, cannot be undone, the dialog does not have a Cancel button. Clicking on OK closes the dialog. This listbox shows the players currently in the human or computer database. Which database is used for the list depends on the state of the player type button. Double-clicking on a player name opens on of the player edit dialogs. Clicking this button toggles the player list between human and computer players. The text on the face of the button indicates which type of player is currently listed.

Clicking this button closes the player list dialog. Changes made in this dialog are independently confirmed, and so there is no Cancel button.

Clicking this button opens up the Add Player dialog to add a new player of the currently listed type.

This button is enabled whenever a player name is selected in the player listbox. Clicking it deletes the selected player from the database. The program prompts for confirmation before deleting the player. This button is enabled whenever a player name is selected in the player listbox. Clicking it opens up the player edit dialog for the currently listed player type.

Add/Edit Players Dialog

In the Add/Edit Players Dialog the user can either add a new player, or edit an existing one, dependending on how the dialog was opened from the <u>Player List Dialog</u>.



The Character Portrait shows the picture that will be assigned to the player. There are a number of images to choose from. Clicking on the arrows beneath the portrait will cycle through the available pictures.

The Character Name edit allows the player's name to be defined. There is a limit of 25 characters on the length of a player name.

For computer players, the Position Evaluator combo box is a drop-down list from which you can pick the evaluator module (AI) which you want the player to use during games. Each evaluator has different characteristics and strengths with regard to its level of play. To find out more information about the available evaluator modules check the <u>Manage Evaluators Dialog</u> which gives information about each installed module.

The Reset History button clears the player's playing history statistics. You will be prompted to confirm that you want to reset the stats. If you click on Yes, the player's stats will be set to zero.

Once the new player has been set up, or the existing player edited, clicking OK will accept all changes and close the dialog box. Clicking on Cancel will discard any changes made to the existing or new player.

This control shows the currently selected portrait for the player being edited or added to the database. Clicking on the arrows below the portrait cycles through the available pictures.

This control is where the name of a player is displayed, and can be edited. Player names are limited to 25 characters. This drop-down list allows you to select the evaluator module to be used by this computer player. The evaluator module is the "AI" for the computer player. Different evaluators have different strengths and weaknesses.

Clicking this button resets the player's match play history. All counts are set to zero.

Click this button to accept any changes made and close the player edit dialog box.

Click this button to undo any changes made and close the player edit dialog box.

One potential mechanism for arriving at this help page.

Manage Evaluators Dialog

In the Manage Evaluators Dialog evaluator modules can be installed and uninstalled, and information can be viewed about the module, it's authors, their copyright, and the module version.

Internal	description:
Eval_G Fiona	MVP Backgammon internal static function evaluator, written by Mark Betz. The internal evaluator plays horribly in most situations. Suitable for beginners.
	copyright info:
Remove Add.	Copyright (c) 1996 by Mark Betz and Cane Garden Software. All rights reserved.
Tenore Maar	
uggestion evaluator for Hum	ian Player
uggestion evaluator for Hum	ian Player

As shipped MVP Backgammon has three evaluators from which you can choose. The internal evaluator corresponds to the "beginner" skill level in versions prior to 1.3. The Eval_G evaluator corresponds to "intermediate", and the Fiona evaluator to "expert". As more evaluators become available you will easily be able to download and install them for use with the game.

The Manage Evaluators Dialog is part of an effort to open the architecture of MVP Backgammon to people who wish to experiment with programming a backgammon position evaluator. Backgammon is among the most challenging problems for a computer, and the Open Architecture extensions implemented in this release make it very easy to create software which focuses on evaluating the game position, while letting MVP Backgammon take care of game setup, position generation, score tracking, and other housekeeping details. If you're interested in implementing an evaluator module, see <u>the EvalSDK documentation</u>. This control lists all of the evaluator modules which have been installed for use with the game. Selecting a module in this list affects the contents of the other controls in the dialog. This button uninstalls the currently selected evaluator module. The module is NOT DELETED from disk, and can be reinstalled at any time. Note that the internal evaluator cannot be uninstalled.

This button installs a new evaluator module. Clicking it brings up a file dialog which can be used to select the evaluator to install. Evaluator modules have the extension .evl appended to them.

This control gives a brief text description of the currently selected evaluator module. The description will normally include the authors names, version and performance information, etc.

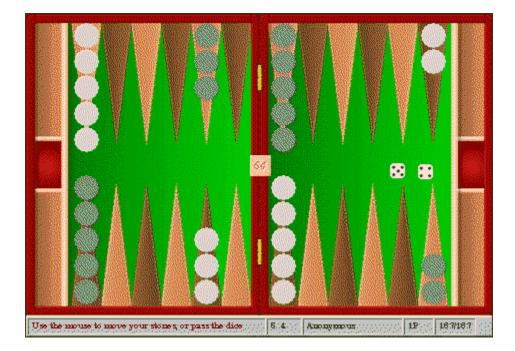
This control displays the author's copyright information for the currently selected evaluator module. Bear in mind that evaluators are the work and property of their creators.

This combo box lists the available evaluator modules, and allows one of them to be selected for use by the human player when a move suggestion is desired. The control displays the currently selected suggestion evaluator. Clicking this button closes the Manage Evaluators Dialog. Note that there is no Cancel button on this dialog. Changes take place immediately.

Hmmm...

Menus, Dialogs, and Controls

This section describes the various menu choices, dialog boxes, and controls used in playing MVP Backgammon. The menu choices which are available vary between the shareware and registered versions; where this is the case the description notes it. The main board graphic below has various links to brief descriptions of board features. For more detailed information see the links below the graphic.



<u>Menu Choices</u> <u>Dialog Boxes</u> <u>Status Bar</u> The playing surface is divided into four "tables." This one is an "outer table" which stones pass through on their way to the inner tables. Much of the mid-game action takes place in the outer tables. In MVP Backgammon this specific outer table always belongs to player 2. Player 1's outer table is directly across the board from it. A table consists of six "points" on which stones may be placed during play.

The playing surface is divided into four "tables." This one is an "inner table" into which all stones must be moved before bearing off can begin. In MVP Backgammon this inner table always belongs to player 2. Player 1's inner table is directly across the board from it. A table consists of six "points" on which stones may be placed during play.

The doubling cube multiplies the stakes in a game under certain circumstances. It is active when a match or game is played with wagering enabled. At the start of the game it is placed in the center of the bar, displaying the number 64, and either player may offer a double. Once a player has offered a double, and it has been accepted, the cube moves to the other player's side of the board to signify that that player now has control of the cube, and is the only player who may offer the next double. Control then alternates from player to player for the remainder of the game. The Bar splits the center of the board vertically, dividing inner and outer tables. Besides being the point at which a portable board folds up, it is also where "hit" stones are placed during play. When a stone is placed on the bar the player who owns it must roll off of the bar and into the opponents inner table, from whence the stone must travel back around to the owner's inner table.

The game of backgammon is played with pieces that are traditionally called"stones." Each player has fifteen of these pieces at the start of the game,arrayed as shown in the graphic. The objective is to move the stones byroll of the die in the direction of the owner's inner table, from whichthey can be born off into the cradle.

This section of the status bar reports messages from the game to you. It changes with the context of the game, and often with the position of the mouse cursor. If you are ever unsure of what to do next, look here!

This section of the status bar reports the number of individual moves available from a roll of the die. For example, if you roll a 3-4, a numeral 3 and a numeral 4 appear in this area. If you roll double 6's then four numeral 6's appear. As each stone is moved the roll used disappears from the status bar until the area is blank, and no more moves remain. This section of the status bar displays the name of the player who currently has control of the board. Having control may mean that the game is waiting for the player to roll, to move stones, or to put the dice away. This section of the status bar displays the current total wager in points. It is active when a match is played with wagering enabled. The total wager is the base wager multiplied by the doubling cube factor.

This section of the status bar displays the "pip counts" for both players in the format player1/player2. The pip count is the total number of points needed to move all of a player's stones into the cradle. It is a measure of the remaining distance a player's stones must cover, and an accurate indicator of which player is winning. There are two cradles into which stones are placed as they are born off of the player's inner table at the end of the game. They are also where the stones are stored when the game board is not in use. The upper cradle belongs to player 2, and the lower cradle belongs to player 1. The dice cup is where the two die are stored when they are not on the board. The dice are on the board only after they have been rolled, and until all moves have been taken. At all other times they are in the cup. The cup is an active game control. You click it to roll the dice at the start of your turn, and you click it to put them away at the end of it. The mouse cursor will often change shape when it passes over the cup to indicate what action can be taken by clicking on it. The dice are placed onto the game board when rolled. At all other times they are stored in the dice cup.

The left-hand cradles and dice cup are inactive in MVP Backgammon. If you could fold up the board they would be used to keep everything in place during transport. But of course you can't. You can minimize it, but these areas have no real role to play in keeping the playing implements from falling about when the game is displayed as an icon.

The board is arranged as four tables of six points each, for a total of 24 points. In MVP Backgammon player 1 is always moving stones from the top right of the board counter-clockwise towards his or her inner table at bottom right. Player 2 always moves clockwise from player 1's inner table at bottom right to his or her inner table at top right. Thus in the graphic player 1 "owns" the bottom of the board, and player 2 "owns" the top.

Originally the "points" were simply twelve lines which spanned the board from top to bottom, and on which stones could be alligned. The lines evolves into points, and ultimately into alternately-colored points, in order to make counting moves easier and more accurate.

Menu Choices

The main window menubar contains several drop down menus which are used to perform various functions in the game.

<u>Games Menu</u> <u>Options Menu</u> <u>Moves Menu</u> <u>Help Menu</u>

In addition the main menu contains a control used during match play for <u>doubling</u> the current stakes. This control is located between the Moves and Help drop-down menus. Match play is available in the registered version of the game.

Games Menu

The Games Menu is where games are started, matches continued, and ongoing spectacles of both kinds saved or loaded. The program can be exited from this menu as well.

<u>New Game</u> <u>New Match</u> <u>Next</u> <u>Load</u> <u>Save</u> <u>Claim</u> <u>Resign</u> <u>Quit</u>

New Match, Claim, and Resign relate to match play, and are disabled in the shareware version of the game.

Options Menu

The Options Menu allows you to customize many of the game's features, view match statistics, define new players, and access the special Edit Mode for setting up your own play scenarios.

Edit Mode Manual Dice Preferences Define Players Match Statistics

Match Statistics relates to match play, and is disabled in the shareware version of the game.

Help Menu

The Help Menu allows you to access the MVP Backgammon help facility from the program's menu bar, or display the Credit and About dialogs. You can also access the help file by double-clicking it in File Manager.

Clicking on Rules in the Help Menu opens the help file and positions the window on the <u>Rules of the Game</u> section.

Clicking on Contents in the Help Menu opens the help file and positions the window on the <u>Contents</u> section.

Clicking on About in the Help Menu displays the About MVP Backgammon dialog box.

Clicking on Credits in the Help Menu displays the Credits dialog box.

In the shareware version of the game clicking on How To Register displays information on how to register the game.

The Moves Menu

The Moves Menu contains several controls which are used during game play to see or reverse moves.

<u>Undo Move</u> <u>Suggest Move</u> <u>Show Last Move</u>

Dialog Boxes

Many of MVP Backgammon's features are accessed through Dialog Boxes. Dialogs are windows which contain controls in which you can enter text or make choices. Dialogs are displayed on top of the main game window.

All but a few of the dialogs in MVP Backgammon contain three standard controls: an OK button, a Cancel button, and a Help button. The OK button accepts any changes made to the contents of the dialog. The Cancel button discards any changes made to the contents. The Help button displays the help topic associated with the particular dialog that is displayed.

New Game Dialog Match Definition Dialog Match Statistics Dialog First Turn Dialog Preferences Dialog Wagering Settings Dialog **Graphics Settings Dialog** Sound Settings Dialog Music Settings Dialog Select MIDI Tracks Dialog Add MIDI Tracks Dialog MCI Device Info Dialog Player List Dialog Add Players Dialog Edit Players Dialog Manage Evaluators Dialog

Quick Start

For those players wanting to get right into the game, saving the pleasure of reading this entire help file for later, the following guide may prove useful:

1. Start MVP Backgammon by clicking on the program icon in Program Manager. The program icon resembles a closed board case. If you haven't installed the program into a group you can use the File | Run menu choice in Program Manager to execute BACKG.EXE.

2. From the <u>Main Menu</u> choose Games | New | Game.

3. When the <u>New Game Dialog</u> comes up for the first time it is set to play a human named "Anonymous" against an expert computer player. You can start a game right away by accepting the default setup. Otherwise see <u>Managing Players</u>, or click the New Game Dialog hotlink at the top of this paragraph.

4. Click on OK to close the dialog.

5. When the <u>First Turn Dialog</u> appears click the "Roll" button underneath Player 1's die.

6. Repeat this action until both players have rolled different die and the "OK" button is enabled.

7. Click on OK to close the dialog.

8. If the computer rolled the high die it will now take a turn, otherwise...

9. It is your turn. Move the mouse cursor over the <u>die cup</u>. The cursor will change to show a set of dice. Click on the die cup. Your roll will be placed on the board and the mouse cursor will change to a hand.

10. Look at the <u>Status Bar</u>. The second field from the left shows the total moves available as individual figures for each die rolled.

11. Decide which stones to move. See the $\underline{\text{Rules}}$ for information on how to make moves.

12. Place the mouse cursor over the stone to move and depress the left button. If the pickup is legal the stone will snap to the cursor, otherwise the cursor will become an 'X' shape.

13. Holding the mouse button, drag the stone to the destination <u>Point</u> and release the mouse button. If the drop is legal the stone will snap into place on the point, otherwise it will return to the origin Point.

14. Continue to move stones until your rolls are exhausted. The mouse cursor will change back to an arrow, and the roll indicator on the Status Bar

will be empty.

15. Move the mouse cursor over the die cup. The cursor will change to a set of dice with an arrow. Click on the die cup to put the dice in the cup and pass control to your opponent.

16. Repeat the turn sequence until one or the other player has removed all stones from the board. The game ends automatically when either player removes the final stone.

Un-installing MVP Backgammon

While we cannot imagine a situation which would be so dire as to motivate someone to actually un-install MVP Backgammon, we thought it would be nice to provide a few notes on how to do it in case some game-weary customer should go mad. Herewith, un-installing MVP Backgammon:

Delete the directory and all the files in it. Change to your \WINDOWS directory and delete the BACKG.INI file. That's it.

Oh, and you may also want to clean up in Program Manager by deleting the program icon.

Moving the MVP Backgammon Game Files

When you run the installation program that came with MVP Backgammon you choose a directory on your hard disk into which the game should be copied. The installation program copies an initialization file (.INI file) to your <u>windows system directory</u>. This file records, among other things, the location of the program on your hard drive. This is needed to support play directly from a CD-ROM.

If you copy the game files from the original directory to another you must either re-install MVP Backgammon, or make changes to the .INI file yourself. The game will not operate properly unless the new directory is recorded correctly in the .INI file. Symptoms of this problem include messages about file errors, failure to load properly, and failure to record option settings changes.

Fortunately editing the .INI file is a simple process. In your Windows system directory you will find a file named BACKG.INI. Note that the Windows system directory is the top windows directory, not the \SYSTEM subdirectory (\SYSTEM32 under Win32 platforms). Open this file with any text editor, such as Notepad.

In the .INI file there is a section [OPTIONS]. Under this section, near the bottom of the list, is a key named PROGPATH. It should look something like this:

PROGPATH=C:\BACKG\

Simply replace the part of this line to the right of the = symbol with the new path. Note that the trailing backslash is important! Your new entry might look like:

PROGPATH=D:\MYGAMES\BACKG\

After you have made this change save the file. The game should operate correctly from this point on.

Files in the Windows System Directory

The MVP Backgammon installation program places a single file called BACKG.INI into the Windows system directory. The Windows system directory is the top level windows directory, \WINDOWS on most systems. If you are planning to update your operating system by overwriting your current version, you should be sure that this file is copied to a safe location, and restored after the update. The BACKG.INI file records all your options settings, as well as the program location.

If you accidentally delete the BACKG.INI file, you have two choices. You can reinstall the program from the original diskettes or CD-ROM, or you can restore the file yourself. In both cases you will lose your options settings.

To restore the file manually, locate your MVP Backgammon diskettes. One of them contains a copy of the BACKG.INI file. Copy this file to your Windows system directory. Now open the file and <u>edit the PROGPATH key</u> so that it contains the path to the directory on your hard drive where the game is installed. The PROGPATH key must be correctly updated or the game will not run properly.

MVP Backgammon Evaluator SDK Information

The MVP Backgammon Open Architecture Extensions are targeted at programmers who are interested in programming techniques for evaluating game positions, specifically backgammon board positions. These techniques are commonly lumped under the term "artificial intelligence".

MVP Backgammon evaluator modules are Windows Dynamic Link Libraries (DLLs) which export four standard entry points, and have several standard resource strings used for information display. The evaluator SDK consists of several files which make creating evaluator modules very easy, at least with regard to getting the project up and built; the evaluation part is up to you.

Cane Garden Software will make the EvalSDK available as a separate download shortly after the release of MVP Backgammon version 1.3. If you are interested in obtaining the SDK, please email 76605.2346@compuserve.com. We will notify you of a download location when the SDK becomes available.

For more information on this subject see Open Architecture Extensions.

MVP Backgammon Open Architecture Extensions

With MVP Backgammon release 1.3 Cane Garden Software has opened the architecture of the program's "artifical intelligence" in the hopes of encouraging people to experiment with backgammon position evaluation functions.

The philosophy behind this decision is straightforward: the state of the art of computer game intelligence is advancing rapidly. Many of the best techniques are emminating from academic or research institutions. As the years go by we would like to think that MVP Backgammon could remain a relevant platform for Windows backgammon players, with up-to-date evaluation functions, despite the fact that it does not, and probably will not ever, generate the revenue necessary for us to devote intensive ongoing research into the subject. Our customers tell us that MVP Backgammon is the best backgammon program available in terms of being fun to play, and we would like to see it live on, and continue to be challenging as well.

The solution to this problem is to make MVP Backgammon attractive to programmers as a "harness" for evaluator functions, and we believe that it has several advantages in this role. First among them is that it allows a researcher to focus on developing the evaluation function, the heart of the "AI", without worrying about myriad details of setting up and running a backgammon game. MVP Backgammon will generate all possible moves from a given position and roll of the dice, and then hand them one by one to the evaluator through a simple interface. The evaluator's sole responsibility is to rank positions, and make doubling decisions.

Another advantage is that MVP Backgammon's design makes it very easy to install multiple evaluators, define players to use them, and then play them against each other. Future versions will support play across the internet, allowing evaluators and humans to compete from remote locations.

Finally, there will be some who see this as a way for us to get others to write better AI for our program. That is not our intent, but it is not easy to deflect such criticism. After all, if we succeed in our goals there will be more evaluators available, making the program more attractive, and this would probably have a positive affect on sales. To make it clear that this is not the primary motivation behind this decision, the ability to install and use multiple evaluators is present in both the registered and unregistered versions of the program. The Fiona neural network evaluator, which has always been a registration bonus, continues to work only with the registered version.

We hope the capabilities designed into version 1.3 will inspire some talented

people to attack the problem of backgammon position evaluation. If you are interested see the <u>Evaluator SDK Information</u>.