Getting Installed

The program, ueiBlackJack, will run off a diskette. It is advisable, however, to run off a hard drive. If you want the program to reside on your hard drive, simply drag the entire ueiBlackJack folder onto your hard drive. A security system requires that the program data file, MJPrefs, reside in the same folder with ueiBlackJack. Open/double click the ueiBlackJack icon in the usual Mac way.

Software Security:

This software has two distinct and different run modes. The first (the one delivered to you) is called the basic capabilities format. This format plays and teaches elementary blackjack. When you are ready to move onto casino play you will need to obtain a code number to fully implement the software. Follow the instructions under the "About ueiBlackJack" menu item which itself is installed under the Apple Menu. You must leave the MJPrefs data file within the ueiBlackJack program in the ueiBlackJack folder. Moving, altering, or deleting this folder will cause your program to revert back to its basic capabilities format. In general you will be charged for a second implementation code if this happens.

The ueiBlackJack folder may be copied onto a diskette and given to your friends and associates. We not only permit this, we gratefully encourage it. The program given away can be run in basic format mode. Once installed in its new home it can optionally be fed a new implementation code secured from UEI by phone.

Getting Started

There are no surprises here! Double click the ueiBlackJack icon to start

If you know casino blackjack, you should recognize most features immediately. Otherwise start slowly by reading these instructions, then go for it. Your money is safe when you learn here.

The Game of Blackjack

The actual game of Blackjack is deceptively simple. A count is the sum of all the face amounts in the hand. The game object is to have a count closer to 21 (without exceeding 21) than does the dealer. Any hand with a count exceeding 21 is said to have busted.

All players individually play against the dealer and are not necessarily concerned with hands held by fellow players. If the dealer is closer to 21 the house wins. If any player is closer to 21 than is the dealer then that player wins. In any game some players may win while others may lose. If a dealer and a player have the same count, that circumstance is called a "push." Push hands are a tie and no money is won or lost.

Cards count as follows:

Ace =	1 or 11 at the holders option
2 =	2
3 =	3
4 =	5
6 =	6
7 =	7
8 =	8
9 =	9
10 =	10
Jack =	10
Queen =	10
King =	10

An example: Ace and 5 and King would be counted as 16. There would be no reason to count this ace as an eleven since if counted as 11 the hand is busted.

Another example: Ace and ten.   This sums to 21 and is a blackjack. Any two cards adding to twenty-one is called blackjack. Blackjack is always an ace and any ten-count card.

A final example: Two and five and king and three. These count as twenty.

Betting: Each active player places a bet by putting chips on the table in front of him. Tables are assigned a minimum bet and a maximum bet which, of course, must be observed.

Dealt hands: The dealer starts on his left and deals every player a single card. He then deals himself a single card face down which is called the dealer's "down card." Player cards may be dealt face up or face down depending on casino practice at this particular table. The dealer's play is governed by absolute rules and, therefore, it doesn't matter if the dealer sees your hand. Then the dealer repeats the process giving each player a second card (again face up or face down as per the practice at this particular table.) The dealer then deals his own second card, face up. This face up card is called the dealer's "up card." The dealer's "up card" is extremely important if you are an experienced blackjack player. Your plan to win depends almost exclusively on the value of this card.   Note: Some casino's reverse which dealer's card is face up and which is face down--i.e. some turn the dealers first card face up and the second card face down. In a particular hand this changes everything--in the long run of probabilities and strategies, it doesn't matter.

Insurance bet: At this juncture each player has his dealt hand as does the dealer. The dealer's next action depends on his "up card." If the dealer has an ace up, each player is offered a special bet called insurance; each player is allowed to place an insurance bet which the player will win if the dealer's down card has a value of ten. If the dealer's down card is other than a ten the player loses the insurance bet and his insurance bet chips are collected by the dealer. Most, if not all, casinos require that an insurance bet have a value equal to at least half the amount of the player's main bet. Usually more can be bet than that

minimum amount. Most casinos pay 2 to 1 for a winning insurance bet. Assume a player initially bet $1.00. Further assume the player placed a subsequent insurance bet of $ .50. There is a total amount of $1.50 in front of this player. There are three possible scenarios now. Scenario number 1: If the dealer does not have blackjack, the player loses his insurance bet and the dealer immediately collects the insurance bet chip(s) (50¢ in this case.) Play then resumes as if the insurance bet did not exist. Scenario number 2: The dealer has blackjack, but the player has something other than blackjack. The player has won the insurance bet, but lost the main bet. He gets $1.00 for the insurance bet but, loses his $1.00 main bet. His winnings and his losses net to zero. The bet money on the table still belongs to the player. It is as if the hand never happened--thus the term insurance. There is a third possibility-- Scenario three: The dealer and the player both have blackjack. The dealer and the player have a push for the main bet but, the player has won the insurance bet. In this instance the insurance winnings are delivered to the player. In our example the dealer would leave the chips alone on the table, but add to that amount the insurance bet winnings. There is widespread misunderstanding about insurance bets. In the last analysis an insurance bet is a 2 to 1 bet placed by a player that the dealer's down card is a ten. There is a 16 in 52 (or 37%) likelihood of that happening in a standard, 52 card deck. Said differently, it is a 2 for 1 bet looking for a 1 in 3 event. It is almost always a sucker's bet unless the player knows certain that the deck is ten rich.

Dealer has Blackjack: This paragraph assumes the dealer does not have an ace up. It further assumes the dealer does have a ten up.   If a ten count card is showing, the dealer now peeks at his down card to see if he has a blackjack. If he does he turns face up both cards and all player bets are settled on the basis of the two dealt cards. Obviously all players have lost unless some have blackjack--in which case they have pushed.

Player has Blackjack: If a player has blackjack, he turns both cards face up and waits for the dealer to pick up those cards and settle the bet. The dealer may do that now or in turn during the "going around the table" phase of play.

Going around the table: Starting at the dealer's left, each player is in turn given an opportunity to improve his hand. There are always two options--one of which a player may select. If a casino allows "surrender," there are three options. The "surrender" option is described here, but remember it is not always offered.

Option 1: Hit.   Under this option the player wants another card. The dealer will deal one card face up. If the player "busts" as a result of the "hit" the player must turn all his cards face up (they may already be face up) and the dealer will collect the cards and the bet money. This hand has lost even if subsequently the dealer also "busts." If the hand did not bust, the player may request another "hit" or he may "stand."

Option 2: Stand. (some call this Stay). The player opts to have this hand compete as it is. He wishes no more cards or hits. If the player "stands" the dealer moves on to the next hand on the table proceeding from his left to his right.

Option 3: Surrender. The surrender option is only available as the first election made by a

player when his turn comes up as the dealer goes around the table. The election is made if the player does not want to continue. He declares himself a loser on the basis of the two cards he now has. If the player does surrender a hand, the dealer settles the bet by picking up the two cards and <u>half</u> of the player's bet. The player retains the other half. As previously mentioned, this option is not always offered. Historically, some casinos allowed this option before the insurance bet was offered. That practice was too good to be true so now it isn't. (Let us know if you find an exception!)

Option 4: Doubledown.   This option is offered only under limited circumstances. This option allows that a player double his bet after which he will be dealt one additional down card. The limited circumstances defining when doubledown is an option pertain to the count value of the player's two-card dealt hand. Some casinos allow doubledown for any two-card combination regardless of the count value. Others allow doubledown when a two-card hand counts to 11 only, some for 10 or 11, and still others for 9, 10 or 11.   While a player has only his two dealt cards he may ask for a doubledown under the allowed circumstance.   Our program "ueiBlackJack" will not accept a doubledown request for two-card hands with a value exceeding 11. (It is never correct to double one's bet if a single down card can break the hand. If you asked for such a doubledown in Vegas, the dealer will say something like, "Are you sure?") Most Las Vegas strip casinos allow doubledown on any two card hands.

Option 5:

Split Pairs: If a player's two dealt cards are of identical face value they are called a "pair." If a player splits a pair he will be allowed to treat each split card as the first card of another hand. Starting with the dealer's leftmost split card, the dealer first deals a second card to this partial hand, and then the dealer will accept hits, stands, doubledowns, and even additional split pairs (generally up to three subsequent, four total, split hands.) The player is allowed/required to cover each hand with a bet identical to his initial bet.

Split Aces: Most casinos treat split aces differently than other splits; typically a hand created by splitting aces is given only the second card and no further options are offered. "ueiBlackJack" requires that you indicate a "stand" after receiving the second card; it will ignore any choice other than stand. This treatment forces the player to recognize the special rules for ace pairs.   Subsequent ace pairs, however, may be split under the normal rules.

<u>**Indicating which option.**</u>

At casinos the play signals are flexible. Some people simply tell the dealer what they want. A request for a hit is usually indicated by holding out an index finger and tapping the table. A wish to stand on a single hand is indicated by placing all of your cards in a single pile and passing your hand, palm down and flat, over the pile of cards. Some people slide the cards slightly under the bet chips. Requests to split or double down are indicated by setting down the hand face up and placing additional bet money on or near the cards. A double down will be indicated by a single stack of cards while a split pair will be indicated by the split

pair being in two stacks.

There are at least four ways a player can indicate to "ueiBlackJack" which option he wishes to select:

1. Use the **Play** pull-down menu and select the desired option item. The options "Surrender", "Hit", "Stand", "Doubledown", and "Split this pair" are highlighted and therefore, available. In "ueiBlackJack" a split or doubledown is highlightedwhether or not it is a legal play. If you indicate an illegal play you will be scolded by a beeping computer. In Vegas the dealer will roll his eyes and wait for a correct play.

2. Use the **keyboard equivalents**. Note all keystrokes must be used simultaneously with the control key.

Surrender	u (or U)	
Hit	h (or H)	or "down arrow"
Stand	s (or S)	or "up arrow"
Doubledown	d (or D)	or "right arrow"
Split this pair	p (or P)	or "left arrow"

3. Use the **Preferences** pull down menu and select the "**omit control**" item. This selection is identical to the keyboard-option method in 2 above except the control key is not required.

4. Use **mouse scratching**. A mouse scratch is performed by depressing the mouse button while the cursor is in an open area, then dragging either up, down, left, or right a short distance and releasing the button. With scratching the player can:

Hit	Scratch down.
Stand	Scratch up.
Doubledown	Scratch right.
Split this pair	Scratch left.

Game Sequence: A normal session played with "ueiBlackJackPro" consists of seven phases or modes:

1. Select options mode.
2. Request new deck(s) mode.
3. Place Bets mode.
4. Two-card deal around mode.
5. Play mode.
6. Bet settlement mode.
7. Review mode.

Program Features.

There are good features which do not rely on the Mac interface. Nonetheless, after each hand when the written text comes up giving the results for each player position---click on any one of the textual areas to see again the cards which have been discarded from that area. Hold the mouse down while you read 'em and weep. Release the mouse to restore the text. If you click down on the dealer's hand the betting screen appears for the next round of play.

To force original default settings. When you launch the program by double clicking the icon--immediately push the mouse again and hold it until all the screen action stops. Now release the mouse and you will be advised that the preferences file is not being loaded. This lets you revert back to all default conditions without losing your preferences file. Caution--if you do save preferences the old ones are overwritten, of course.

Strategies are discussed below. As a way of introduction the play strategy and betting strategy are pre-loaded and protected as strategy 0. There are a bazillion strategies out there so get one from your favorite gambling book and load it into any one of strategies 1 through 3. In fact you can load up to three of your own strategies and play them all at the same time (at different player positions of course).

Program Mechanics.

The pull-down menus follow standard Mac protocol.

> **Options / Number of Decks.** This allows you to select the number of decks you wish to simulate. In the basic capabilities format only one deck is simulated so this control is ineffective in that mode.

> **Options / House Rules.** Most casinos have some special rules. The common rules which we know about are controllable from this dialog box. For standard Las Vegas casino play, these should be OK in their usual default settings. After changing rules they will only stay set for this session unless you "Save Pref. File" as discussed under Preferences menu (below). Give us an E-mail if you discover any other rule options.

> **Options / Player Setup / Active** The program is dimensioned for 7 players and one dealer around the table. This number (we have observed) is common, but not universal. By clicking into the "Active" boxes you either put a player in that chair (that position) or you declare that position inactive.

> If a position is inactive, you may still enter parameters for that position, but to no practical consequence.

> **Options / Player Setup / Players Names.** You may wish to give each active player a name. If you do, that name will appear on several dialogs and displays as appropriate. If names are to be preserved beyond this session remember to "Save Pref. File" as discussed under Preferences menu (below).

Options / Player Setup / Balance. Balance sets or resets a players bankroll (his balance). The program automatically posts wins and losses to this balance as the game progresses. If a balance goes negative it is so posted. Continued play is allowed. If balances are to be preserved beyond this session remember to "Save Pref. File" as discussed under Preferences menu (below).

Options / Player Setup / Std Bet .   Only for convenience, each player is assumed to have a standard bet. This can be thought of as the smallest denomination of chips a player is using. When a player bets he/she toggles the plus or minus on top of the top chip. Each toggle increases or decreases by the amount of the standard bet. If standard bets are to be preserved beyond this session remember to "Save Pref. File" as discussed under Preferences menu (below).

Options / Player Setup / Strategy. The program provides for four strategy schemes available as play progresses. Any given player will consistently stick to his own strategy, even though another player may be employing a different strategy. We'll talk more about strategies below when we actually define and set-up each of the four strategies. At this point, each player can be assigned to use a specific strategy.

Options / Player Setup / Auto. Each player position can be played by you manually or if clicked "auto" that particular position will be played by the computer in strict compliance to the strategy presently assigned for that position. If all positions are set "auto" the computer launches into electronic speeds and will play thousands of hands overnight. This is more than just cool--it's the way you can evaluate a trial strategy. After say 50,000 games, consistently played by the rules of the assigned strategy, one may observe by the balance at that position if that strategy is one you wish to keep or not. Or even more interesting some players may be assigned to strategy 2 while other players are assigned strategy 3. This is usually very revealing about the merits of the two trial strategies. You will not be surprised that "auto" is only available in the "fully capable" implementation format of play. Pressing the mouse will pause the play when all-auto mode is controlling. *It may take a couple of presses to get stopped where you wish.* If balances are to be preserved beyond this session remember to "Save Pref. File" as discussed under Preferences menu (below).

Play / New Deal.   Causing the computer to deal a fresh hand from the present deck may be accomplished in any one of three ways. First the New Deal menu may be used. Secondly the keyboard options control-n, "n" or "N" may be used depending on settings under preferences menu. And finally New Deal can be invoked by voting for FDR--whoops scratch that--New Deal can be invoked by clicking inside the dealer box when betting is finished.

Play / Shuffle. This menu action causes the existing play deck to be shuffled. The shuffle is accomplished using random numbers to define the order of the playing

cards.

Play / New Deck. This transfers control to the very first phase of the program. It sets up a good time to prepare preferences for saving. The spread of cards and ordering of those cards is cosmetic to the practical simulation of the game.

Play / Surrender, Play / Hit, Play / Stand, Play / Doubledown, Play / Split This Pair (all discussed previously above).

Play / Bet. Presently a betting screen comes up at appropriate times. It is, however, sometimes useful to use the pull-down menu to force back the betting screen.

Play / Abort . Program play can be directed to the options setting stage using abort.

Strategy. Four distinct and different strategies may be defined. The first, strategy 0, is defined in the program and cannot be altered. The others, Strategy 1, Strategy 2, and Strategy 3, are yours to do with as you will.

Each strategy has three parts. First you decide in advance what you will do almost invariably as a response to the dealers up card. Next you decide how to keep track or count the cards as they are played. From this count you pre-determine a betting strategy. And third you decide if, how, and when you will vary from the rules just described. It comes down then to play strategy, betting strategy, and exceptions.

There are shelves of books that have been published defining various strategies. In general, all schemes are based on a basic card play guided by the dealers up card, a betting strategy based on how many high cards remain in the deck, and a set of exceptions defining variances in play strategy when card count goes high.

It is generally recognized that a player's advantage or disadvantage is determined by the ratio of tens (or other high cards) which remain in the deck. This is intuitively true as we will now explain. The dealer is governed by fixed rules. He/she has no discretion whether to take a hit or not. Rules apply. A dealer must take a hit if his count is 16 or less or if he holds a soft 17 and house rules require a hit. These rules apply even if the only cards left are near tens. You will learn to know when the odds are very high the dealer is going to bust. You will leap for joy when you look up to see the dealer has a six up. There is a very high likelihood the dealer is going to bust and therefore you should expose yourself to no risk whatsoever.

If the dealer has a ten up you are in bad trouble. He/she will in all probability wind up with at least a 19 and you will probably lose. In that circumstance why stay on a 14 or even a 17? Go ahead and hit--with your eyes closed albeit. You have bad odds in that circumstance, but not as bad if you play it correctly.

Strategy 0. One strategy says always split aces and eight's and always double down

on 11. If you add to that--always believe every card you cannot see is a ten, you have a good strategy. Odds are you will win over $99 for each $100 you bet.

This is very close to the play part of Strategy 0. If, as we are presuming, the dealer's down card is a ten the following falls out. If the up card is a six, the dealer has 16 and the mandatory hit with its can't see ten will give him/her a 26. We will not even consider hitting our 12 since we too will bust if we take a ten hit.

If we have potential for an increasible bet, say an 11 doubledown, we increase our bet since we *know* the dealer is going to bust. When similar logic excites a tourist to split a pair of tens the dealers eyes roll, we smile, and some savvy regular says "that took a lot of courage!" The tourist's motivation was right, but one rule was not yet provided--never break up an already good hand. Already good hands most certainly include 20, 19, and 18. However, having said that the player who splits tens while looking at a dealer 6 up card still has a very good chance of winning. It was slightly better as a single 20-count hand.   What to do with troublesome 17 and 12 are debated questions we'll put off for the moment.

You should pull down Strategy 0 and study its contents. The horizontal numbers across the top of the matrix represents the dealers up card. The letters just under the up card are the players responses.

And finally we get to the card counting strategy and the betting strategy.   Strategy 0 tells you to count as follows: You look at every card at your first opportunity--you see almost all cards eventually. Start a count of zero in your mind when the deck is shuffled. If you see a card with a face count greater than 8 subtract one point. If you see a card with a face count less than 8, add one to the running count. Continue this count for as long as the existing shuffle is in effect. An accumulated positive count says more small cards have been delt than large cards and the deck is ten-rich and favorable. The higher (or lower) the count ranges the more certain the good news (high count) or more certain thebad news (low count.)

The betting matrix shown in Strategy 0 says bet one unit (one standard bet) for a low count deck, but increase the bet as the count goes more and more positive.

A player (or player position) assigned to Strategy 0 is prompted to follow the rules for that strategy. This Strategy is used only because it pre-dates the copy-right packing sages.

Strategy 1/Strategy 2/Strategy 3.   These strategies are yours to use. Once they are entered they control any and all coaching and play for hands assigned to that strategy. Beware that recommended play may not be recommended play. Its only recommending what you put in the strategy without regard to merit. Our program ueiBlackJack will run anything you input without any checking whatever for brilliance nor stupidity.

Strategy / Count Data. A series of calculated ratios and counts are provided for your amusement. Have fun.

Strategy / Count Drill. Each strategy has its own card counting scheme. This drill will let you practice computing any or all. The number of decks comes from the option menu.