POKER GAME INCORPORATING "BAD BEAT" FEATURE

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ABSTRACT

A variant game of Texas Hold’Em poker allows for players to be rewarded for high ranking hands, even when the dealer has a premium hand. The method comprises: a player placing an ante wager that the player hand will beat the dealer hand, and a blind wager. The players and dealer receive hole cards and community cards are dealt. Players are provided with multiple opportunities to check or make play wagers. With full knowledge of the player hand, the player can either make a final Ante or fold. Folding is only permitted if the player did not previously place a play wager. The dealer reviews his cards and the hands are resolved. The dealer must qualify, otherwise the Ante is a push. Even if the dealer does not qualify, if the player hand beats the dealer hand, the player wins on all play wagers. The player wins the blind wager if he beats the dealer hand and his hand is at least a certain predetermined rank. Players with certain high ranking hands win a "bad beat" payoff when the dealer hand beats the player hand.
FIG. 2
dealer arranges player's cards in best poker format

player's hand beats dealer?

ante, pre-flop, flop and river wagers lose

blind wager pays out as per Blind Payout (WIN)

three of a kind or higher?

pre-flop, flop and river wagers lose

four of a kind or straight flush?

blind wager pays out as per Blind Payout (BAD BEAT)

trips wager pays out per Trips Payout

end

end

FIG. 4
FIG. 8
FIG. 9
FIG. 10
POKER GAME INCORPORATING "BAD BEAT" FEATURE

FIELD OF THE INVENTION

[0001] The present invention relates to wagering games, casino table wagering games, casino table playing card wagering games, and variants of casino table wagering games that use poker rankings in determining outcomes.

BACKGROUND OF THE INVENTION

[0002] Many different wagering games presently exist for use in both home and casino environments. Such games should necessarily be exciting, not excessively complicated, and relatively easy to learn so as to avoid frustrating the players. Poker games in particular have gained widespread popularity because of their well-known rules and long-established ranking of hands.

[0003] Furthermore, the games usually involve numerous wagering opportunities for the players, thus increasing player participation and excitement. Lastly, the games move fairly quickly, which enhances player interest. All of these factors have created games that are widely accepted and widely known. Consequently, further variations of wagering games are desired.

[0004] Poker games in general reward players for poker hands that beat the dealer’s hand. However, accumulating even a great poker hand is still no guarantee that a player will be rewarded. In fact, there is a term for when a player with an outstanding hand is beaten by the dealer. That term is “bad beat”.

[0005] An example of a “bad beat” would be if a player has a straight flush and the dealer has a royal flush. Under most circumstances, a straight flush is a great hand, unusual and requiring skill and luck to assemble, thus a player should be rewarded accordingly. Unfortunately, a royal flush is even better. With most poker formats, if a player’s hand has been beaten by the dealer’s hand, a player’s straight flush will not entitle the player to a payout. Therefore it is desirable to create a poker format that rewards players that otherwise play well, but still fall victim to a “bad beat” scenario.

SUMMARY OF THE INVENTION

[0006] The present invention is a method of playing a wagering game. The game comprises in its broadest sense, the following rules. A player places an Ante wager that the player hand will beat the dealer hand. The player must also place a Blind wager to participate in the game. The dealer then proceeds to deal at least one card to each player and at least one card to the dealer. After the player views his or her at least one card, the player is given the opportunity to make a first Play wager. The player may also check, but cannot fold. At least one additional card is revealed to the player. After viewing this at least one card, the player is given an opportunity to make a second Play wager, or check. Once again, the player cannot fold. After all of the player cards are revealed, the player has a final opportunity to make a play wager, check or fold. Folding is only permitted if the player checked on all previous wagering opportunities. The dealer then reviews his cards, and the hands are resolved. If the dealer fails to have a qualifying hand, the Ante wager is returned to the player. All Play wagers and the Blind wager remain in play. The player hand must beat the dealer hand to win the play wagers and the blind wager. Additionally, in

order to win the Blind wager, the player must hold a predetermined winning hand. If the dealer hand beats the player hand, the Ante, Blind and Play wagers lose. If the player holds a predetermined high ranking hand, but the dealer holds a premium hand of higher rank, the player is entitled to a “bad beat” payout.

BRIEF DESCRIPTION OF THE FIGURES

[0007] FIG. 1 is a perspective view of an exemplary embodiment of the gaming system of the present invention;
[0008] FIG. 2 is an exemplary layout used within the embodiment of FIG. 1;
[0009] FIG. 3 is a flowchart of the sequencing of the wagering that occurs within the present invention;
[0010] FIG. 4 is a flowchart of the reconciliation process used within the present invention;
[0011] FIG. 5 is an overhead view of an electronic embodiment of the gaming system of FIGS. 1-4;
[0012] FIG. 6 is a side view of the automated gaming system of FIG. 5;
[0013] FIG. 7 is a perspective view of the embodiment of FIGS. 5 and 6; and
[0014] FIGS. 8-10 are schematic details of various portions of electronic implementations of the present invention.

DETAILED DESCRIPTION OF THE INVENTION

[0015] Before explaining the disclosed embodiment of the present invention in detail, it is to be understood that the invention is not limited in its application to the details of the particular arrangement shown, since the invention is capable of other embodiments. Also, the terminology used herein is for the purpose of description and not of limitation.

[0016] The games of the present invention may be employed in a number of different formats, such as live action casino table gaming format with a live dealer and real playing cards and chips, or with various automated formats with partial (e.g., wagers only) or complete (wagers, cards, dealer, etc.) automation of the format. Such formats include traditional video gaming apparatus and modern multi-player platforms.

[0017] For example, the games of the present invention may be implemented as live table games, television or cable game show games, video poker gaming machine platforms, hand-held games for practice play, multiple player interactive wagering platform games (with kiosk formats, single player screens, community screens, and/or banks of seats for players with a common dealer screen), cell phone games, games downloadable from the internet, parlor games, games executed on personal computers, palm pilots, play stations and the like. Each of the above game applications is contemplated by the present invention.

[0018] Although it is preferred that the dealer and players each receive the same number of cards (i.e., 2 player/dealer cards each and 5 community cards), the invention contemplates dealing unequal numbers of cards to the dealer and players, and differing numbers of cards to the dealer and player (i.e., 5 cards total, 4 cards total, 3 dealer/player cards and 2, 3, or 4 community cards), which will alter the house advantage. For example, giving the dealer three cards instead of two cards and allowing the dealer to discard one card would provide a greater advantage to the house.
The present invention does not pit the players against each other. Instead, all play occurs against the dealer or the house. The present game encourages players to wager larger amounts and/or bet more aggressively early in the game.

To that end, the present invention gives players better odds in the event they finish the round with a premium hand that is still “bent” by the dealer, i.e., “bad beat”. Also, the game offers players the chance to place wagers at various stages as the five community cards are being revealed.

In its broadest sense, the present invention is a method of playing a wagering game. The method comprises a number of steps, including: a player placing an ante wager that the player hand will beat the dealer hand and the player also placing a blind wager. The dealer deals at least one card to each player and to the dealer. After viewing at least one additional card, the player makes a first play wager or checks, but cannot fold. The dealer reveals at least one additional card, and after the player views this additional card, the player makes a second play wager or checks, but may not fold. The dealer reveals all cards, and the player has a final opportunity to check, make an Ante wager or fold. Folding is only permitted if the player only checked on all previous betting rounds. The dealer hand is then compared to the player hand and the wagers are resolved. Players are paid on the Ante wager when the player hand outranks the dealer hand and the dealer hand qualifies. Players are paid on the Play wagers when the player hand outranks the dealer hand regardless of whether the dealer hand qualifies. Blind wagers are paid to the player when the player hand beats the dealer hand and the player hand meets or exceeds a predetermined minimum hand ranking. When the player holds a particularly high ranking hand, but the dealer holds a premium hand that outranks the player hand, the player is entitled to a “bad beat” payout.

In an example of the invention, the ante and blind wagers are equal. In other examples, the two wagers may be unequal. Optionally, the rules of the game may allow a separate side bet on the occurrence of one or more predetermined winning hands. In one example of the game, all 5-card poker rankings that are of a rank of at least three of a kind or better pay an odds payout on this bet. This bet may be referred to as a “trips side bet” when the minimum rank of a winning hand is three of a kind. Although this wager is offered as optional, house rules may require that the wager be mandatory.

According to one form of the game, the players and dealer receive one or more individual cards, referred to in “Hold ‘Em” games as “hole cards”, and multiple community cards. In one form of the invention, players and dealer receive 2 hole cards and five community cards. The dealer and players make their best five card hand from the seven available cards. In one embodiment, there are no restrictions on the cards used to make the final hand. In other embodiments, the use of the cards is restricted. For example, players may be required to use all hole cards, or at least one hole card. Other variations are contemplated.

The common cards are typically dealt face down. For example, when five cards are dealt, all are dealt face down. The dealer then reveals the community cards in a number of steps, preferably at least two steps, to allow additional betting rounds to take place.

When the number of hole cards is 2, the players are given the opportunity to place a first Play wager, or check (meaning, not wagering, but staying in the game), after viewing the cards. In other embodiments, the number of hole cards is 1, 3, or 4, for example.

After the hole cards are viewed by the player, and after the first round of wagering, the dealer begins to reveal the community cards. In one example of the invention, the first set of cards to be revealed is called the “flop” and typically consists of three cards. The flop in other examples of the invention includes 1, 2, 4, 5 or 6 cards. After the flop is revealed, the players are permitted to make another Play wager, or check, but not fold.

Additional cards are revealed, either as a group, or individually until all of the cards that can be used to form the player hand are eventually revealed to the player. With full knowledge of the player hand composition, the player is required to fold, check or make one last Play wager. In an example, the dealer reveals a fourth card, called the “fourth street” card, and then the players can either make a Play wager or check. The fifth and final community card is then revealed. The last two community cards may be revealed in individual steps with associated betting rounds, or as a group.

In one example of the invention, the rules only allow the player to fold after the last card is revealed when the player only checked in all previous betting rounds. This rule helps the house to maintain its advantage in the game.

When the total number of cards available to the player is seven, it is preferred that the player make a best five card poker hand from the seven cards. When the game is a seven card game, a preferred number of hole cards is two and a preferred number of community cards is five.

The rules of a preferred game of the present invention utilize five card poker rankings as the criteria for resolving player hands. When the game utilizes a different number of cards, it is well known in the art that the relative ranking of certain hands changes because the frequency of occurrence of those hands change.

One important feature of the present invention is that “bad beat” hands are rewarded. For example, if the player holds a four of a kind or better, in one example of the invention, the player wins an odds payout, even when the dealer holds a higher ranking hand. For example, the dealer may hold a Royal Flush against the player’s Straight Flush. The player receives 500:1 on the Straight Flush, because the game provides “bad beat” payouts. Interestingly, in one example of the invention, this is the top odds payout in the game.

The present invention is also a method of administering a wagering game, comprising the following steps. A plurality of players each place at least a mandatory ante wager and a mandatory blind wager to participate in the wagering game. The dealer deals at least one hole card to each player and at least one hole card to the dealer, each at least one card forming a partial hand, and also dealing a plurality of community cards, face down. After each player views the at least one (player) hole card, each player either checks or makes a first play wager, at the option of the player. The dealer then reveals a portion of the community cards. After each player views the revealed portion of the community cards, each player either checks or makes a second play wager, at the option of the player. The dealer reveals the remainder of the community cards. After each player views all of the revealed community cards, each player either checks, folds or makes a final play wager, at the
option of the player. The dealer reveals his hole cards. The dealer’s hand is compared to each player hand. Players are paid on the Ante when the dealer hand qualifies (i.e., with a pair or better, or with another predetermined hand), otherwise the Ante bet is a push. All players are paid on all Play wagers when the player hand outranks the dealer hand according to predetermined poker rankings. Players are paid on the blind bet when the player hand outranks the dealer hand and the player hand is at least a first minimum qualifying rank. Preferably, the Ante and Blind wagers are equal, and all play bets are 1× the Ante. In other forms of the invention, the Play bets may be unrelated to-the amount of the Ante or multiples of the Ante. According to the invention, the method also includes paying the players for hands that do not outrank the dealer hand, but are at least a second minimum qualifying “bad beat” ranking.

[0033] According to one aspect of the invention, and when the game is based on 5-card poker rankings, the second minimum qualifying “bad beat” ranking is at least a four-of-a-kind. Further, the minimum qualifying rank for winning the blind bet in a 5-card game is a straight or better.

[0034] When the game is based on 5-card poker rankings, a suitable “bad beat” pay table is as follows:

<table>
<thead>
<tr>
<th>Hand</th>
<th>Odds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Royal Flush</td>
<td>NA</td>
</tr>
<tr>
<td>Straight Flush</td>
<td>500:1</td>
</tr>
<tr>
<td>Four-of-a-kind</td>
<td>50:1</td>
</tr>
</tbody>
</table>

An exemplary pay table for the blind bet in a 5-card game is:

<table>
<thead>
<tr>
<th>Hand</th>
<th>Odds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Royal Flush</td>
<td>500:1</td>
</tr>
<tr>
<td>Straight Flush</td>
<td>50:1</td>
</tr>
<tr>
<td>Four-of-a-kind</td>
<td>10:1</td>
</tr>
<tr>
<td>Full House</td>
<td>3:1</td>
</tr>
<tr>
<td>Flush</td>
<td>3:2</td>
</tr>
<tr>
<td>Straight</td>
<td>1:1</td>
</tr>
</tbody>
</table>

It is well within the skill of persons in the art to add or remove winning hands and to modify the payout odds in order to alter the house edge.

[0036] Although one form of the present invention is a live casino card game, the game may be executed on an automated interactive multiple player game platform, or on a single player video gaming machine. When the gaming machine is of the multiple player type, the invention includes multiple player stations, each having a player-only video display area that displays game play including cards and wagers, and having controls and platform programable to execute a game. The platform may have a common video display area displaying a video representation of a dealer. The rules of the game may include: each player placing a mandatory ante wager and blind wager required to participate in the game; each player and the dealer receiving at least one hole card; after viewing their hole card(s), each player having an option to place a first play wager, revealing a portion of the community cards; after viewing their hole card(s) in combination with the revealed community cards, each player having an option to place a second play wager; revealing a remainder of the community cards; after viewing their hole card(s) in combination with the revealed community cards, each player having an option to fold or place a final play wager; turning over all cards and reconciling the players’ hands with the dealer’s hand; paying the players whose hands outrank the dealer hand according to predetermined betting criteria; and paying the players whose hands do not outrank the dealer hand but do meet or exceed a predetermined “bad beat” criteria.

[0037] The video gaming platform of the present invention may display a total of two player and dealer hole cards, and a total of 5 community cards. Prior to the last community card being revealed, according to one example of the invention, the player may only fold if the player has checked on all opportunities to make a play wager. In one example of the invention, each player has an opportunity to place an optional side bet on the occurrence of predetermined outcomes based on a player’s final hand.

Example “Bad Beat” Texas Hold ’Em

[0038] An embodiment of the present invention is directed to a specific poker game known as “bad beat” Texas Hold’Em™. The objective of the “bad beat” Texas Hold’Em game of the present invention is to a) beat the dealer hand, b) win an odds payout against a pay table, or c) develop a high ranking “bad beat” poker hand, even if the dealer’s hand ranking is higher.

[0039] FIG. 1 shows a sample of a felt table layout 110, with a number of betting circles located at each wagering position 210. The layout has a dealer hole card area 112, a common card area 114, and includes the dealer qualification rule 116 printed on the layout. In this example of the invention, the dealer qualifies to play if he holds a pair or better. FIG. 2 shows more detail of each wagering position 210.

[0040] The exemplary game is illustrated in the form of a flow chart as shown in FIG. 3. To start, each player places two mandatory wagers 304 of equal value on the ante wager 212 and the blind wager 214 areas. Both wagers qualify as “blind” wagers, which is a term in the art meaning that the wagers are placed on the betting circles prior to the disclosure of any card information.

[0041] Optionally, players place a Trips wager 308 on area 216. The Trips wager must beat the dealer hand, and be of a predetermined minimum ranking to win. The minimum winning hand in this example of the invention is three of a kind.

[0042] In this example of the game 100 of the present invention, the dealer gives each player two hole cards, face down 312. The dealer also receives two hole cards (face down) 312. These dealer hole cards may be dealt at the same approximate time as the player hands, but may also be dealt nearer the end of the game when all wagers have been placed and the player has seen all other available cards.

[0043] After the players have placed their Ante, Blind, and optional Trips wagers, and the hole cards are dispensed, the dealer dispenses five community cards, face down, adjacent to one another, and positioned between the players and the dealer. After the player views his or her hole cards, players can make a pre-flop wager 316, or check. The player cannot fold. Next, the dealer reveals three of the community cards, or the “flop”. After the player has knowledge of his hole
cards and the flop, the player is given the opportunity to make a flop wager \textsuperscript{324}, or check. The player may not fold. The dealer then reveals the 4th Street and River cards \textsuperscript{328}, and the player then with full knowledge of his or her hand, has the opportunity to fold, check or make an additional Play (river) wager \textsuperscript{336}. If the player made any earlier play wagers, he is not eligible to fold. If the player did make an earlier Play wager, he may check or make a Play wager. In this embodiment, all Play wagers are equal to the Ante.

The dealer then turns over his hole cards \textsuperscript{340} and the hands are compared. In order for the player to win the Ante wager, the dealer must qualify \textsuperscript{352} with a pair or better. If the dealer does not qualify, the Ante is pushed \textsuperscript{356} and is returned to the player.

Regardless of whether the dealer qualifies, the Trip, Blind and Play bets remain in play. The hands are then reconciled \textsuperscript{400}.

Referring to FIG. 4, the dealer next arranges the player and dealer hands into five out of seven card hands \textsuperscript{404}. If the player hand beats the dealer hand \textsuperscript{408} and the dealer qualifies, the player wins even money on the Ante, and all Play bets. If the dealer hand beats the player hand, the Ante and all Play bets lose \textsuperscript{416}. The player wins the Blind bet when he beats the dealer hand and has a predetermined winning hand ranking of at least a straight. The player wins the Trips \textsuperscript{424} bet with a three of a kind or better.

If the dealer hand beats the player hand, all bets except for the Trips bet are lost to the house. If the player obtains a high ranking “bad beat” hand of 4 of a kind or better \textsuperscript{420}, but loses to the dealer, he still wins a payout \textsuperscript{428}.

An exemplary pay table for this example of the game is as follows:

<table>
<thead>
<tr>
<th>Hand</th>
<th>Odds</th>
<th>“Bad Beat”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Royal Flush</td>
<td>50:1</td>
<td>N/A</td>
</tr>
<tr>
<td>Straight Flush</td>
<td>50:1</td>
<td>500:1</td>
</tr>
<tr>
<td>4-of-a-Kind</td>
<td>10:1</td>
<td>40:1</td>
</tr>
<tr>
<td>Full House</td>
<td>3:1</td>
<td>30:1</td>
</tr>
<tr>
<td>Flush</td>
<td>3:2</td>
<td>20:1</td>
</tr>
<tr>
<td>Straight</td>
<td>1:1</td>
<td>10:1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hand</th>
<th>Odds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Royal Flush</td>
<td>50:1</td>
</tr>
<tr>
<td>Straight Flush</td>
<td>40:1</td>
</tr>
<tr>
<td>4-of-a-Kind</td>
<td>30:1</td>
</tr>
<tr>
<td>Full House</td>
<td>9:1</td>
</tr>
<tr>
<td>Flush</td>
<td>7:1</td>
</tr>
<tr>
<td>Straight</td>
<td>4:1</td>
</tr>
<tr>
<td>3-of-a-Kind</td>
<td>3:1</td>
</tr>
</tbody>
</table>

In this example of the invention, at least the following features are included:

players are given several opportunities to place wagers or check after card information has been disclosed;

players are rewarded for placing wagers early in the game, and therefore are motivated to wager more aggressively; and

players are rewarded with the same top payout, if they hold a strong hand, yet are beat by a dealer holding a premium hand.

The rules of the game could also allow for play wagers either all at the same 1X Ante amounts, or perhaps allow subsequent wagers but only at fractions of the Ante. It is an important feature of the game to not shift odds too much in favor of a player clearly working toward a superior poker hand. This coincides with the earlier-stated feature of rewarding players who wager early, such as for example prior to the community cards being revealed.

FIG. 5 shows an overhead view of an automated gaming system \textsuperscript{1} with the viewing screen \textsuperscript{7} shown as a CRT monitor which can be used to implement the present invention. It can also be seen that each player position has to form an arc cut into the semicircular player seating area \textsuperscript{18}. Meanwhile, FIG. 6 shows a side view of the automated gaming system of FIG. 5, where the orientation of the three different types of CRT monitors \textsuperscript{7}, \textsuperscript{9} and \textsuperscript{10} are shown.

As shown in FIG. 5, the gaming system \textsuperscript{1} that can be used to practice the method of the present invention comprises a table \textsuperscript{1} and a dealer “virtual” video display system positioned for view by players seated at the table. The table may seat one or more players, up to the amount of player stations available proximate to the dealer video display system. Typically, each gaming system will have at least four player available positions, and typically five, at the option of the customer. The player stations may be attached to the common display \textsuperscript{9} and upright display \textsuperscript{707} (shown in FIG. 7) or may be detached. It is possible to have a completely circular dealer display (e.g., holographic display in a cylindrical centerpiece) and have players distributed around the entire perspex, but this is too dissimilar to standard play arrangements and could slow the game down, as play should approximate that of a live game, with players playing in sequence.

FIG. 7 shows an example of an automated table system \textsuperscript{701} useful to practice the game play methods of the present invention. The system \textsuperscript{701} has an upright dealer display cabinet \textsuperscript{702} with a top \textsuperscript{704} and the dealer viewing screen \textsuperscript{707}, typically displaying a virtual dealer \textsuperscript{708} which may be any form of display screen such as a CRT, plasma screen, liquid crystal screen, LED screen or the like. The player bank arrangement \textsuperscript{703} has a common display screen \textsuperscript{709} on which images of cards \textsuperscript{709a} being dealt, dealer’s cards, bets wagered, and touch screen player input functions are displayed. Other player input functions may be provided on a panel \textsuperscript{706} which might accept currency, coins, tokens, identification cards, player tracking cards, ticket in/ticket out acceptance, and the like. The player stations are equipped with touch screen displays \textsuperscript{710} for viewing cards and inputting information into the game.

FIG. 8 shows an electronic/processor schematic for a MultiPlayer Platform (MPP) gaming system according to the present invention. The MPP Game engine (dealer) comprises a Heber Pluto 5 casino game board \textsuperscript{200} (Motorola 68340 board) operating off the PC Platform Pentium\textsuperscript{®} 4 MPP Game Display processor \textsuperscript{802}. The game display processor operates on a Windows XP platform. The respective subcomponents on the Pentium 4 processor are labeled to show the apportionment of activity on the motherboard and the component parts added to the board. As is shown, the game engine has an Uninterruptible Power Supply \textsuperscript{804}. The game display processor directs activity on the Speakers,
directs activities onto the MPP Game Service panel, and the Plasma Monitor Card Table display. It is important to note that all communications are direct from the game display processor, freeing up resources available to the game engine processor.

[F0095] FIG. 9 shows the electronic/processing schematics of the MPP Player Station Intelligence board (Heber Pluto 5 Casino, Motorola 68340), each of which player stations (one for each player position) is in direct connection to the MPP Game Engine (Dealer), which is in turn directly connected to the PC Platform (not shown in this Figure). Each Intelligence board receives information for all player input systems specific to that player station, such as the shown coin acceptor, coin hopper, bill validator, ticket printer, touch screen and/or display button panel, dual wire ticket-in/ticket-out printing and SAS System (SAS is one exemplary standard communications protocol used by a number of casinos central computer systems). A significant benefit resides in the use of the independent Intelligence boards at each player position being in direct communication with the MPP Game Engine, as opposed to each individual player position button panel being dead or inactive until authorized by the main game processor, as previously automated gaming systems were constructed.

[F0100] The above-described architecture is an improvement in providing a system with not only the intelligence at each player position, but also in redistributing processing capability for functions among various processing components within the gaming system. In one architectural format, all functions of the gaming engine, except for the player localized intelligence functions, are consolidated into a single PC (e.g., the Pentium 4 shown in the Figures). This would include all game functions, player video functions, dealer video functions, dealer audio functions, security, central reporting (to a casino’s central computer, for example), currency and debit functions, alarm functions, lighting functions, and all other peripherals on the system, except for the localized player functions. Alternatively, all functions requiring communication with the casino’s main computer system are located on the player station Intelligence boards. In this system, the main game processor would talk directly with the Player Intelligence boards, preferably in the same novel communication format described below.

[F0101] An alternative means of implementing the present invention is shown in FIG. 10, where there is a dealer engine processor that communicates with the main game PC and the Player intelligence boards. With the higher power available for PC’s, and with the ease of programming a PC as opposed to the embedded system, the consolidation of the game functions and the ability of the main game engine to communicate with each of the player positions is enabled. As shown in FIG. 10, the Game display processor is preferably a Pentium® 4 PC and is separate from the main game processor. With the player intelligence boards, the main game PC can receive packets of information from each player station as events occur rather than having to poll each player position on a regular basis (i.e., 100 times or more) to gain the specific information for each player input that may be made.

[F0102] The Heber Board described herein is known for its reliability and flexibility, especially for the Pluto 5 family of gaming products. Flexibility comes from a set of features built into the Pluto 5 (Casino) controller, and from the choice of optional add-on boards that can be used to adapt the Pluto family to best suit individual applications. In the area of interfacing, there are three distinct boards, each of which serves a particular function in helping the Pluto 5 to connect with the world outside:

[F0103] RS485 is an industrial-grade board for linking multiple systems in unforgiving circumstances for centralized information gathering. The Heber RS485 board is fully opto-isolated to provide complete circuit safety when used within ‘electrically noisy’ environments. The RS485 board uses a single RS232 connection to the Pluto 5 board and all necessary power is also derived through this link. Two header connectors may be provided for the RS485 channel to allow daisy chain connections between multiple systems.

[F0104] The III/ccTalk board specializes in communicating with industry standard note/coin acceptors and payout hoppers. Equipped with dual communication channels, each port is configurable to use either the III format to connect with Mars® coin/note acceptors or the ccTalk format for Money Controls® hoppers. Both channels are controlled via a single RS232 connection to the Pluto 5 board and all necessary power is also derived through this link. The Heber FastTrack™ package contains modular library functions for passing information via these channels.

[F0105] A four channel relay board can control output at medium to high level loads such as solenoids, without risk of damage or interference to the Pluto 5 circuitry. Four power-switching channels are available with absolute isolation from the Pluto 5 control signals. Each relay is capable of switching direct or alternating currents of up to 7 A at a maximum voltage of 250V.

[F0106] Like the Pluto 5 board itself, its modular options have been used extensively so that their designs are fully developed and entirely stable. The options that are specified are consistently provided in mass quantities. As with all Pluto products, programming for the modular options is straightforward. This is enhanced with the use of the Pluto 5 Enhanced Development Kit and also the FastTrack™ package. Between these, these kits contain all of the low level and high level programming tools and library functions needed for gaming applications.

[F0107] One proposed hardware configuration of the present invention implements a “satellite” intelligent processor at each player position, as shown in FIG. 9. The player station satellite processor is substantially the same as the primary game engine processor. The satellite processors receive instruction from the primary game engine, but then handle the communications with player station peripherals independently. Each satellite processor communicates with only the peripherals at the same player station. Thus, each player station has a dedicated satellite processor communicating with only the peripherals at the same player station and with the casino’s central computer system. The peripherals are, but not limited to: slot accounting systems, bill validator, ticket printer, coin acceptor, coin hopper, meters, button panel and LCD touch screen and various doors and keys.

[F0108] The satellite processors run proprietary software to enable functionality. The player station software is comprised of two modules, the first being an OS similar to the game engine Operating System and the second being station software that handles peripheral communications. The software may be installed on EPROMs for each satellite processor. The primary method of communication between the
satellite processors and the primary game engine is via serial connectivity and the previously described protocol. In one example, information packets are prepared by the satellite processors and are sent to the game engine processor on the happening of an event.

The proposed game engine provides communication to the player stations to set the game state, activate buttons and receive button and meter information for each player station. Communication is via a serial connection to each of the stations. The new protocol for communication between the game engine, game display and player stations is an event driven packet-for-packet bi-directional protocol with Cyclic Redundancy Check (CRC) verification. This communication method frees up resources in the same engine processor because the processor no longer needs to poll the satellites continuously or periodically.

The new protocol uses embedded acknowledgement and sequence checking. The packet-for-packet protocol uses a Command Packet, Response Packet and a Synchronization Packet as illustrated below. The protocol uses standard ASCII characters to send data and a proprietary verification method.

Format of Command Packet

<table>
<thead>
<tr>
<th>STX</th>
<th>SEQ</th>
<th>DATA LENGTH</th>
<th>DATA</th>
<th>CRC-16</th>
<th>ETX</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>3</td>
<td>3-999</td>
<td>5</td>
<td>1</td>
</tr>
</tbody>
</table>

Format of Response Packet

<table>
<thead>
<tr>
<th>STX</th>
<th>SEQ</th>
<th>DSP</th>
<th>PRV</th>
<th>ETX</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

Format of Synchronization Response Packet

<table>
<thead>
<tr>
<th>STX</th>
<th>MTS</th>
<th>MRS</th>
<th>ETX</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

Legend For Figures

<table>
<thead>
<tr>
<th>STX</th>
<th>SEQ</th>
<th>LEN</th>
<th>DATA</th>
<th>CRC-16</th>
<th>ETX</th>
</tr>
</thead>
<tbody>
<tr>
<td>STX</td>
<td>Start of Packet Character</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| SEQ | Sequence # (Cycles from ‘0’ thru ‘9’)
| LEN | Length of Data Area (‘003’ thru ‘999’)
| DATA | ASCII Data Fields Separated with ‘|’ Character
| CRC | CRC-16 Value (‘0000’ thru ‘65535’) Cyclic Redundancy Check
| ETX | End of Packet Character

The Command Packet and Response Packet are used during primary game communications. The protocol uses redundant acknowledgement. For example: the packet is initially acknowledged when first received by the recipient. The same recipient will resend another acknowledgement in the next communication. This second acknowledgement is the ‘PRV’ data in the response packet.

The communications between the Game Engine and the Player Station intelligence is preferably a transaction-based protocol. Either device can start a transaction. All packets of information may be sent in any acceptable format, with ASCII format preferred as a matter of designer choice. All command packets usually contain a sequence number that is incremented after each successful packet exchange. The Game Engine and the Player Station intelligence use sequence numbers that are independent of each other. The sequence number keeps the communications in synchronization. This synchronization method is described later.

The command packet is used to send various commands such as Inputs, Lamps, Doors, Errors, Chirp, Game Results, player input, coin acceptance, player identification, credit acceptance, wagers, etc. The command packet format may be by any of a non-limiting example:

<table>
<thead>
<tr>
<th>STX</th>
<th>&lt;Sequence number&gt;</th>
<th>&lt;Data Length&gt;</th>
<th>&lt;Data&gt;</th>
<th>&lt;CRC-16&gt;</th>
<th>&lt;ETX&gt;</th>
</tr>
</thead>
</table>

The data format within the command packet may be:

<table>
<thead>
<tr>
<th>STX</th>
<th>&lt;Address&gt;</th>
<th>&lt;Command&gt;</th>
<th>&lt;Field 1&gt;</th>
<th>&lt;Field 2&gt;</th>
<th>&lt;Field n&gt;</th>
</tr>
</thead>
</table>

The response packet format may be:

<table>
<thead>
<tr>
<th>STX</th>
<th>&lt;Sequence number&gt;</th>
<th>&lt;Disposition&gt;</th>
<th>&lt;Previous ACK&gt;</th>
<th>&lt;ETX&gt;</th>
</tr>
</thead>
</table>

The sync request packet format may be:

<table>
<thead>
<tr>
<th>STX</th>
<th>&lt;SYN&gt;</th>
</tr>
</thead>
</table>

The sync response packet format may be:

<table>
<thead>
<tr>
<th>STX</th>
<th>&lt;Mains Current Transmission Sequence&gt;</th>
<th>&lt;Mains Current Receive Sequence&gt;</th>
<th>&lt;ETX&gt;</th>
</tr>
</thead>
</table>

A major strength of the protocol is its resilience of the Game Protocol and its ability to free up resources within the game engine. Those resources can in turn be used to provide more intricate games, and multi-media affects.

The satellite and host must become synchronized in order to provide for reliable communications using packet numbers. To facilitate this, a novel protocol synchronization method that is used. Upon applying power to the satellite, or after a communications failure, the satellite automatically enters into synchronization mode. In the synchronization mode the satellite sends out the ASCII SYM (0X16) character about every second. It is expecting a special response packet containing transmit and receive packet sequence numbers to be used from that point on. After receiving the special response packet, the sequence numbers are used as-is, and not incremented until a successful packet exchange is completed.

-continued
After communications is synchro-nized, the sequence numbers are incremented after each packet is successfully sent or received.

[0089] As was noted before, the main game processor may contain information, data, programming and other necessary functions to enable the play of multiple games off the same machine. For example, the main game engine may have rules and commands that will enable play of high and low games of the present invention and other card games. The system may be controlled so that different games may be played at different times on command of the casino or players.

[0090] Although the systems shown herein do not explicitly require features illustrated for receiving automated player identification information, such features can alternatively be provided. Card readers such as used with credit cards, or other identification code reading devices can be added in the system to allow or require player identification in connection with play of the card game and associated recording of game action by one of the processors. Such a user identification interface, for example a card reader located at each player station, can be implemented in the form of a variety of magnetic card readers commercially available for reading user-specific identification information. The user-specific information can be provided on specially constructed magnetic cards issued by a casino, or magnetically coded credit cards or debit cards frequently used with national credit organizations such as VISA, MASTERCARD, AMERICAN EXPRESS, casino player card registry, banks and other institutions. The information could also be provided on other writable media, such as an RFID chip with writable memory, or bar coding, as just a few examples.

[0091] Alternatively, it is possible to use so-called smart cards to provide added processing or data storage functions in addition to mere identification data. For example, the user identification could include coding for available credit amounts purchased from a casino. As further example, the identification card or other user-specific instrument may include specially coded data indicating security information such as would allow accessing or identifying stored security information which must be confirmed by the user after scanning the user identification card through a card reader. Such security information might include such things as file access numbers which allow the central processor to access a stored security clearance code which the player must indicate using input options provided on displays using touch screen displays. Still further possibility is to have participant identification using a fingerprint image, eye blood vessel image reader, or other suitable biological information to confirm identity of the user that can be built into the table. Still further it is possible to provide such participant identification information by having the pit personnel manually code in the information in response to the player indicating his or her code name or real name. Such additional identification could also be used to confirm credit use of a smart card or transponder. All or part of the functions dedicated to a particular player station are controlled by the player station intelligence in one form of the invention. Additionally, each player station intelligence may be in communication with a casino accounting system.

[0092] It is anticipated that various changes may be made in the arrangement and operation of the system of the present invention without departing from the spirit and scope of the invention, as defined by the following claims.

What is claimed is:

1. A method of playing a wagering game, comprising:
   a player placing an ante wager that the player hand will beat the dealer hand; the player also placing a blind wager; dealing at least one card to each player and to the dealer; after viewing at least one additional card, the player making a first play wager or checking, but not folding; viewing at least a second additional card, the player making a second play wager or checking, but not folding, regardless of whether the player made the first play wager;
   viewing a final hand, and placing a final play wager or folding;
   comparing the final player hand to the final dealer hand; paying the player on the ante wager when the final player hand outranks the final dealer hand;
   paying the player on the blind wager when the player hand outranks the player hand and when the player hand is at least a predetermined minimum poker ranking; and
   paying the player a “bad beat” payout when the dealer hand outranks the player hand and the player hand has at least a predetermined winning “bad beat” ranking.

2. The method of claim 1, wherein the ante and blind wagers are equal.

3. The method of claim 1, further comprising:
   prior to the step of dealing, the player optionally making a wager on the occurrence of at least one predetermined winning hand.

4. The method of claim 1, and further comprising the dealer dealing a plurality of common cards, face down.

5. The method of claim 4, wherein five common cards are dealt.

6. The method of claim 5, wherein the players and the dealer each receive two cards, and the first play wager is made after the first two player cards are viewed by the player.

7. The method of claim 6, wherein the dealer reveals the first three common cards, and the player makes the second play wager prior to the dealer revealing the first three common cards.

8. The method of claim 7, and further comprising the player making an additional play wager after the three common cards are revealed.

9. The method of claim 7, and further comprising the dealer revealing at least one additional common card.

10. The method of claim 1, wherein the dealer hand and player hands consist of five cards.

11. The method of claim 9, wherein five common cards are revealed, and the player and dealer makes a best five card poker hand from the two player or dealer cards and the five community cards.

12. The method of claim 1, wherein the player may fold only if the player previously failed to make any play wagers.

13. The method of claim 1, wherein five card poker rankings are used to compare player and dealer hands.

14. The method of claim 1, wherein the predetermined minimum poker ranking is four-of-a-kind.

15. The method of claim 1, wherein the player wins a “bad beat” payoff when the player hand ranking is at least a four-of-a-kind.

16. A method of administering a wagering game, comprising:
a plurality of players each placing at least a mandatory ante wager and a mandatory blind wager to participate in the wagering game;
a dealer dealing at least one hole card to each player and at least one hole card to the dealer, each at least one card forming a partial hand, and also dealing a plurality of community cards;
wherein after each player views the at least one hole card, each player either checks or makes a first play wager, at the option of the player;
the dealer revealing a portion of the community cards;
wherein after each player views the revealed portion of the community cards, each player either checks or makes a second play wager, at the option of the player;
the dealer revealing the remainder of the community cards;
wherein after each player views all of the revealed community cards, each player either checks, folds or makes a final play wager, at the option of the player;
revealing all dealer hole cards;
comparing each player hand to the dealer hand;
paying the players on the ante and all play wagers when the player hand outranks the dealer hand according to predetermined poker rankings;
paying the players on the blind bet when the player hand outranks the dealer hand and the player hand is at least a first minimum qualifying rank; and
paying the players whose hands do not outrank the dealer hand, but are at least a second minimum qualifying “bad beat” ranking.
17. The method of claim 16, wherein the second qualifying “bad beat” ranking is at least a four-of-a-kind.
18. The method of claim 16, wherein the first minimum qualifying rank for the blind bet is a straight or better.
19. The method of claim 17, wherein the pay table for the “bad beat” is:

<table>
<thead>
<tr>
<th>Hand</th>
<th>Odds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Royal Flush</td>
<td>N/A</td>
</tr>
<tr>
<td>Straight Flush</td>
<td>50:1</td>
</tr>
<tr>
<td>Four-of-a-kind</td>
<td>50:1</td>
</tr>
</tbody>
</table>

20. The method of claim 18, wherein the pay table for the blind bet is:

<table>
<thead>
<tr>
<th>Hand</th>
<th>Odds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Royal Flush</td>
<td>50:1</td>
</tr>
<tr>
<td>Straight Flush</td>
<td>50:1</td>
</tr>
<tr>
<td>Four-of-a-kind</td>
<td>10:1</td>
</tr>
<tr>
<td>Full House</td>
<td>3:1</td>
</tr>
<tr>
<td>Flush</td>
<td>3:2</td>
</tr>
<tr>
<td>Straight</td>
<td>1:1</td>
</tr>
</tbody>
</table>

21. The method of claim 3, wherein the predetermined winning hands and corresponding payout odds are:

<table>
<thead>
<tr>
<th>Hand</th>
<th>Odds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Royal Flush</td>
<td>50:1</td>
</tr>
<tr>
<td>Straight Flush</td>
<td>40:1</td>
</tr>
<tr>
<td>Four-of-a-kind</td>
<td>30:1</td>
</tr>
<tr>
<td>Full House</td>
<td>9:1</td>
</tr>
<tr>
<td>Flush</td>
<td>7:1</td>
</tr>
<tr>
<td>Straight</td>
<td>4:1</td>
</tr>
<tr>
<td>Three-of-a-kind</td>
<td>3:1</td>
</tr>
</tbody>
</table>

22. An interactive video gaming platform for multiple players, comprising:
multiple player stations, each having a player-only video display area that displays game play including cards and wagers, and having controls and platform programmable to execute a game;
a common video display area displaying a video representation of a dealer;
wherein the game rules include the steps of:
each player placing a mandatory ante wager and blind wager required to participate in the game;
each player and the dealer receiving at least one hole card;
after viewing their hole card(s), each player having an option to place a first play wager;
revealing a portion of the community cards;
after viewing their hole card(s) in combination with the revealed community cards, each player having an option to place a second play wager;
revealing a remainder of the community cards;
after viewing their hole card(s) in combination with the revealed community cards, each player having an option to fold or place a final play wager;
turning over all cards and reconciling the players’ hands with the dealer’s hand;
paying the players whose hands outrank the dealer hand according to predetermined betting criteria; and
paying the players whose hands do not outrank the dealer hand but do meet or exceed a predetermined “bad beat” criteria.

23. The video gaming platform of claim 22, wherein a total of two player and dealer cards are dealt and a total of five community cards are dealt.

24. The video gaming platform of claim 22, wherein a player may only fold if the player has checked on all opportunities to make a play wager.

25. The video gaming platform of claim 22, wherein players have an opportunity to place an optional side bet on the occurrence of predetermined outcomes based on a player’s final hand.

* * * * *