Note: Within nine months of the publication of the mention of the grant of the European patent in the European Patent Bulletin, any person may give notice to the European Patent Office of opposition to that patent, in accordance with the Implementing Regulations. Notice of opposition shall not be deemed to have been filed until the opposition fee has been paid. (Art. 99(1) European Patent Convention).
BACKGROUND OF THE INVENTION

In recent years, on numerous electronic gaming apparatus, numerous auxiliary games have been developed and added to primary games. The goal of these auxiliary games is 1) to maintain the interest of the player on the game and 2) to create a need for the player to keep playing the game so that the apparatus used generates more revenues for its owner.

One strategy used to maintain the interest of players is a jackpot or a progressive jackpot with a potential prize much more interesting than the one that can be won on the primary game. Therefore, when players play a game, their interest is increased by the possibility of winning this jackpot. However, the players do not feel a need to stay on the apparatus. They can see that the jackpot will also be available if they use another apparatus.

Another strategy used for electronic gaming apparatus is the addition of a secondary game that players can access when particular events occur during the primary game. These secondary games allows players to increase the amount won on the primary game or provides players with the chance to win a special prize that can only be won in this secondary game. The excitement created does not last for a number of consecutive games because the player does not know when the event will occur. The jackpot or the access to the secondary game is usually awarded one game at a time. Nothing suggests that the next game could let a player win the jackpot more than the one that was played before. These games do not give prolonged thrills, only a fixed number of short thrills.

A third strategy used to maintain the interest of the player is the one described in U.S. Pat. No. 5,393,057. In this example, a bingo matrix display (the secondary game) is coupled to a poker game (the primary game). The occurrence of different events in the poker game can produce a modification of the bingo matrix display. According to the rules of standard bingo, the player can win a prize in the auxiliary game. This game requires winning with certain hands at the game of poker to complete the bingo matrix display of the auxiliary game and to win the prize associated with the auxiliary game. Players do not feel that all games are important. They do, however, feel that they could skip over the winning game if they quit the game for a few moments.

Another strategy available is a progressive jackpot used with live casino tables or a network of electronic gaming apparatus. This game has the disadvantages of the above-mentioned strategies.

Yet another strategy used is to gather a number of events of the primary game and, when a predetermined number of these events is gathered, players access an auxiliary game, usually a prize multiplier. Most of the time, the calculation of these events is not displayed to players so they do not know when they will access the auxiliary game. Often, they are not aware of what controls the access to the auxiliary game.

Another strategy is to give access to an auxiliary game wherein players gather points or the like and are rewarded according to the number of points gathered. The points are attributed and accumulated in the auxiliary game and are not a function of the primary game. The only relationship between the auxiliary game and the primary game is that events in the primary game control the access to the auxiliary game.

There have been no successful strategies that maintain the interest of players throughout their participation in primary games and that give them a feeling that each game played is important, without exception.

The published German patent application DE 198 12 491 A1 describes a method for operating a gaming apparatus with a computer-controlled game control unit comprising a principal game and auxiliary game components which are activated when a particular (unlikely) combination of symbols turns up in the principal game.

European patent EP 0 797 175 A1 describes an electronic gaming method and apparatus comprising a principal game designed as a simulated slot machine and an auxiliary game component formed of a hierarchy of simulated wheels of fortune. The auxiliary game component allowing higher possible awards for the player can be played if a particular combination of symbols turns up at the slot machine game.

European patent application EP 0 971 326 A2 describes a gaming apparatus comprising three rotating wheels forming a slot machine game as a principal game and a so-called wrap-around trail as a supplementary game playing display region. The play transfers to the trail in a usual way on a random or predetermined basis, e.g. predetermined transfer symbols are selected on the wheel of the slot machine. The play is then again transferred from the wrap-around trail to further award zones by a zone selector automatically or by a player operating a push-button.
SUMMARY OF THE INVENTION

[0013] Accordingly, it is an object of the present invention to provide an apparatus on which playing an auxiliary game maintains the interest of players and increases the pleasure of playing the game. A second object of the invention is to make each game played in the primary game of the gaming apparatus an important one. A third object of the invention is to provide a gaming apparatus that causes players to think they need to stay on the same gaming apparatus so that they will continue to play and generate profits for the owner of the apparatus.

[0014] It is also an object of the present invention to provide a progressive payoff to maintain the interest of the player. Another object is to display information regarding credits obtained in a predetermined number of events to sustain the thrill. A further object of the invention is to maintain players’ excitement by allowing them to gather the number of credits needed to win prizes in the auxiliary game in a greater number of games than in the auxiliary game. A player’s chances of winning an auxiliary game prize are therefore increased.

[0015] According to the objects of the invention, a gaming apparatus that supplies prizes in an auxiliary game component coupled to a primary game as defined in claim 12 and a method of operating a gaming apparatus as defined in claim 1 are provided. The above-mentioned method gives the advantage to players of avoiding no-credit events within a series of non-event holds and credit events, and consequently increasing players’ chances of winning an auxiliary game prize.

[0016] A preferred embodiment of this invention comprises an electronic gaming apparatus in which a game composed of a primary game linked to an auxiliary game works according to the method defined above. A display of the information monitored by the auxiliary game should be placed above the display of the primary game and should be easy to understand by a novice player. In the preferred embodiment, the primary game comprises a Blackjack game wherein a win with a card sum of 21 produces a credit event in the auxiliary game component, a loss produces a no-credit event and a win with a card sum of 20 or below produces a non-event hold in the auxiliary game component. A gaming matrix display showing a trace of credit and no-credit events is displayed above the primary game. A number of progressive prizes associated with the gaming matrix display can be awarded according to criteria based on the number of credit events accumulated and displayed in the gaming matrix display.

[0017] A second embodiment is provided in which the auxiliary game component is played in association with another primary game, such as Poker. In this embodiment, the definition of the three classes of outcomes are therefore different from the definition used with Blackjack and are based on the rules of Poker. Also, the prizes associated with the auxiliary game component are preferably different along with the criteria used to award these prizes.

[0018] A further embodiment of the present invention is an electronic apparatus that uses the same method of playing an auxiliary game component linked to a live primary game such as Blackjack or Poker. This embodiment is especially dedicated to be used in association with live casino tables.

[0019] The term "non-event hold" is intended to mean the type of outcome that does not generate an output in the auxiliary game component.

BRIEF DESCRIPTION OF THE DRAWINGS

[0020] These and other features, aspects and advantages of the present invention will become better understood with regard to the following description and accompanying drawings, wherein:

FIG. 1 is a frontal view of a schematic representation of an electronic gaming apparatus built in accordance with the present invention;
FIG. 2 is a schematic representation of the playing screen of the electronic gaming apparatus of FIG. 1;
FIG. 3 is a schematic representation of the matrix display of the auxiliary game of FIG. 2;
FIG. 4 is a schematic representation of the matrix display of the auxiliary game of FIG. 3, steps further in the game;
FIG. 5 is a schematic representation of the matrix display of the auxiliary game of FIG. 4, steps further in the game;
FIG. 6 is a schematic representation of the matrix display of the auxiliary game of FIG. 5, steps further in the game;
FIG. 7 is a schematic representation of the matrix display of the auxiliary game of FIG. 6, steps further in the game;
FIG. 8 is a schematic representation of the matrix display of the auxiliary game of FIG. 7, steps further in the game;
FIG. 9 is a schematic representation of an alternative to the playing screen of FIG. 2;
FIG. 10 is a schematic representation of an alternative to the display shown in FIG. 3;
FIG. 11 is a schematic representation of an alternative to the display shown in FIG. 3;
FIG. 12 is a frontal view of a schematic representation of a table auxiliary electronic apparatus;
FIG. 13 is a block diagram of a preferred embodiment; and
FIG. 14 is a flow chart of the steps of playing the auxiliary game according to a preferred embodiment.
DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0021] As can be seen in FIG. 1, the electronic gaming apparatus 101 built in accordance with the present invention includes a primary game, such as an electronic Blackjack game 102, that is electronically coupled to the auxiliary game 103.

[0022] In the preferred embodiment of the present invention, the primary game is an electronic Blackjack game 102, but other electronic games can be used. The electronic gaming apparatus 101 particularly includes a playing screen 105, some buttons 106 enabling players to input information in order to play the primary game and an auxiliary button 107 available to input a command directly to the auxiliary game 103. The electronic gaming apparatus 101 also supplies a credit acceptor 104 and a prize certificate printer 108. Depending on casino policy, the credit acceptor 104 takes the form of, as an example, a card reader of a coin acceptor. For the distribution of prizes, other systems such as coin dispensers with receiving baskets are used too.

[0023] Referring now to FIG. 2, when a player begins playing on the electronic gaming apparatus 101, the gaming matrix display 110 of the auxiliary game 103 is empty. If it is not empty, the player can choose to press on the auxiliary button 107 which erases all the entries in the gaming matrix display 110. The player then puts some credits in the electronic gaming apparatus 101 to play a primary game following the usual rules associated with games such as Blackjack or Poker.

EXAMPLE 1

[0024] The present invention will be more readily understood with particular reference to the following example which is given to illustrate the invention rather than to limit its scope.

[0025] A hypothetical game would be played as follows: the player puts enough monetary credits in the electronic gaming apparatus 101 to play a sequence of primary games and an auxiliary game 103. For the purpose of demonstration, the player chooses to empty the gaming matrix display 110 by activating the auxiliary button 107. The primary game played is a standard Blackjack game.

[0026] As in usual electronic Blackjack games, the player places a wager. Then, on the playing screen 105, a virtual dealer gives cards 130, 131, 132 to the player and the dealer: two cards facing up 130 for the player and one card face up 131 and one face down 132 for the dealer. The player chooses to hold his or her cards or take new cards to complete his or her hand 130 (a hit or stay choice). If the player has a card sum higher than 21, the player automatically loses. If the player stays, the dealer turns his second card 132 face up and chooses to stay or hit new cards. If the dealer has a card sum greater than 21, the player automatically wins. Additionally, the player wins if the sum of his or her cards 130 does not overshoot 21 but is closer to it than the dealer’s sum.

[0027] For clarity purposes, let us assume a series of “player’s outcomes” in the Blackjack game 102 occurring as shown in TABLE 1. Also assumed are the “dealer’s outcomes”. TABLE 1 shows the effect of the outcomes on the Blackjack game (“Primary game”) and the corresponding entries in the “Auxiliary game”:

<table>
<thead>
<tr>
<th>Player’s outcomes</th>
<th>Dealer’s outcome</th>
<th>Primary Game</th>
<th>Auxiliary Game</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) 21</td>
<td>18</td>
<td>Win</td>
<td>Credit event</td>
</tr>
<tr>
<td>2) 20</td>
<td>19</td>
<td>Win</td>
<td>Non-event hold</td>
</tr>
<tr>
<td>3) 19</td>
<td>20</td>
<td>Loss</td>
<td>No-credit event</td>
</tr>
<tr>
<td>4) 21</td>
<td>17</td>
<td>Win</td>
<td>Credit event</td>
</tr>
<tr>
<td>5) 19</td>
<td>23</td>
<td>Win</td>
<td>Non-event hold</td>
</tr>
<tr>
<td>6) 18</td>
<td>22</td>
<td>Win</td>
<td>Non-event hold</td>
</tr>
<tr>
<td>7) 20</td>
<td>19</td>
<td>Win</td>
<td>Non-event hold</td>
</tr>
<tr>
<td>8) 21</td>
<td>20</td>
<td>Win</td>
<td>Credit event</td>
</tr>
<tr>
<td>9) 20</td>
<td>21</td>
<td>Loss</td>
<td>No-credit event</td>
</tr>
<tr>
<td>10) 21</td>
<td>19</td>
<td>Win</td>
<td>Credit event</td>
</tr>
</tbody>
</table>

[0028] In the first game, the player has a card sum of 21 and the dealer’s cards 131, 132 add up to 17. This type of
outcome in the electronic Blackjack game 102 generates an entry in the gaming matrix display 110. The outcomes are evaluated to generate a credit event in the auxiliary game. The first column 141 of the display of the auxiliary game 103 is therefore filled in with winning symbols 160, as represented in FIG. 3.

[0029] In the second game, the player wins with a card sum of 19. Consequently of being the kind of outcome that does not generate an output in the auxiliary game 103 (non-event holds), nothing changes on the gaming matrix display 110. The next game, the player loses. This outcome is assessed as a no-credit event. The winning symbols 160 of the first column 141 are transferred onto the second column 142 and all the spaces on the first column 141 are filled with losing symbols 161 as seen on FIG. 4. A new winning game occurs with a player’s card sum of 21 resulting in the gaming matrix display of FIG. 5. Therefore, the symbols 160 and 161 in the columns 141, 142 are respectively transferred to the neighbouring columns 142, 143 and the first column 141 is filled with new winning symbols 160.

[0030] As can be seen in FIG. 5, two winning symbols 160 are in the first line 151 of the gaming matrix display 110. According to the auxiliary pay table seen below for in TABLE 2 and also displayed as the information display outputs 115, 120 of FIG. 2, the player wins a prize of 2 credits. The amount is credited to the player and the winning symbols 160 of the bottom line 151 are replaced by payment symbols 162 as shown in FIG. 6.

### TABLE 2: Hypothetical auxiliary game pay table.

<table>
<thead>
<tr>
<th>Line number</th>
<th>Number of credit events needed</th>
<th>Prize awarded</th>
</tr>
</thead>
<tbody>
<tr>
<td>Line # 1</td>
<td>2</td>
<td>2 credits</td>
</tr>
<tr>
<td>Line # 2</td>
<td>3</td>
<td>5 credits</td>
</tr>
<tr>
<td>Line # 3</td>
<td>4</td>
<td>15 credits</td>
</tr>
<tr>
<td>Line # 4</td>
<td>5</td>
<td>50 credits</td>
</tr>
<tr>
<td>Line # 5</td>
<td>6</td>
<td>250 credits</td>
</tr>
</tbody>
</table>

[0031] For the purpose of this example, the symbols have been chosen to be " *, "-, " and "osta." It will be understood that any symbol could be used to illustrate the possibilities.

[0032] After a number of winning games without a sum of 21 (non-event holds), a new player’s card sum of 21 occurs. The symbols 160, 161 and 162 are moved in the gaming matrix display 110 and new winning symbols 160 fill the column 141. Three winning symbols 160 are now on the second line 152 of the gaming matrix display 110. Referring to TABLE 2 and the information display outputs 116 and 121, the information shows that the electronic gaming apparatus 101 awards a new prize of 5 credits. The winning symbols 160 of the second line 152 are replaced by payment symbols 162, yielding a gaming matrix displays 110 as shown in FIG. 7.

[0033] The player then loses a game and wins another one with a card sum of 21. In regards to these two outcomes, two new columns of symbols are inserted in the gaming matrix display 110. The gaming matrix display 110 at that time comprises two winning symbols 160 on the first line 151 and four on the third line 153. Therefore, the electronic gaming apparatus awards a prize of 17 credits (2 credits + 15 credits) according to TABLE 2 and the information display outputs 115, 120, 117 and 122. The remaining winning symbols 160 of the first line 151 and of the third line 153 are replaced by payment symbols 162, yielding a gaming matrix display 110 as shown in FIG. 8. The auxiliary game 103 continues until someone activates the auxiliary button 107. When the gaming matrix display 110 is full, the symbols of the oldest column 148 are erased and a new symbols corresponding to a new event is introduced in column 141 of the gaming matrix display 110. At any time, prizes are awarded as soon as the required number of winning symbols 160 is obtained, regardless of the position of the symbols on the line.

[0034] To obtain multiple winning symbols 160, players can play numerous games in the primary game 102 without influencing the auxiliary game 103 as long as the outcomes of those games produce non-event holds. Players can therefore play on the primary game 102 without decreasing their chances of winning auxiliary prizes as long as they do not gather no-credit events.

[0035] A different embodiment includes the use of this auxiliary game within an electronic Poker game, as represented in FIG. 9. In this embodiment, the outcomes producing credit events are defined following the rules of Poker as hands classified as "three of a kind" or better. To generate no-credit events, outcomes not defined by the rules of Poker are needed. (see TABLE 3 for further details).
The prizes and the criteria to win the prizes in the auxiliary game are modified according to the difficulty in achieving the criteria. However, to avoid overloading, the same pay table as detailed in TABLE 2 is used in this example for an auxiliary game played with a Poker game as primary game.

This embodiment will be more readily understood with reference to the following example.

EXAMPLE 2

A new hypothetical game would be played as follows. Assume a player begins with an empty auxiliary game matrix display 110. Furthermore, assume that a sequence of outcomes in the Poker game 104 occurred as shown in TABLE 4. Also shown is the result of the outcomes in the Poker game and the corresponding events generated in the auxiliary game 103:

<table>
<thead>
<tr>
<th>Outcomes</th>
<th>Primary game</th>
<th>Auxiliary game</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) None</td>
<td>Loss</td>
<td>No-credit event</td>
</tr>
<tr>
<td>2) Pair of 10 or less</td>
<td>Loss</td>
<td>Non-event hold</td>
</tr>
<tr>
<td>3) Pair of Jacks or better</td>
<td>Win</td>
<td>Non-event hold</td>
</tr>
<tr>
<td>4) 2 Pairs</td>
<td>Win</td>
<td>Non-event hold</td>
</tr>
<tr>
<td>5) 3 of a Kind</td>
<td>Win</td>
<td>Credit-event</td>
</tr>
<tr>
<td>6) Straight</td>
<td>Win</td>
<td>Credit-event</td>
</tr>
<tr>
<td>7) Flush</td>
<td>Win</td>
<td>Credit-event</td>
</tr>
<tr>
<td>8) Full House</td>
<td>Win</td>
<td>Credit-event</td>
</tr>
<tr>
<td>9) 4 of a Kind</td>
<td>Win</td>
<td>Credit-event</td>
</tr>
<tr>
<td>10) Straight Flush</td>
<td>Win</td>
<td>Credit-event</td>
</tr>
<tr>
<td>11) Royal Flush</td>
<td>Win</td>
<td>Credit-event</td>
</tr>
</tbody>
</table>

TABLE 4. Hypothetical Poker game with auxiliary game.

<table>
<thead>
<tr>
<th>Outcomes</th>
<th>Primary Game</th>
<th>Auxiliary Game</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Pair of Jack</td>
<td>win</td>
<td>Non-event hold</td>
</tr>
<tr>
<td>2) 3 of a kind</td>
<td>win</td>
<td>Credit event</td>
</tr>
<tr>
<td>3) Loss</td>
<td>loss</td>
<td>No-credit event</td>
</tr>
<tr>
<td>4) Pair of 3</td>
<td>loss</td>
<td>Non-event hold</td>
</tr>
<tr>
<td>5) Flush</td>
<td>win</td>
<td>Credit event</td>
</tr>
<tr>
<td>6) Pair of 7</td>
<td>loss</td>
<td>Non-event hold</td>
</tr>
<tr>
<td>7) Pair of aces</td>
<td>win</td>
<td>Non-event hold</td>
</tr>
</tbody>
</table>

The result yielded by this sequence of outcomes in the gaming matrix display 110 is the same as the one shown in FIG. 6. As can be seen from TABLE 4, the outcomes are three losses and four wins. Nevertheless, the events generated by these outcomes shown in the gaming matrix display 110 suggest that players might prefer to change their Poker game strategy in order to win or get non-event holds in the auxiliary game. The classes of outcomes defined above give additional criteria influencing the strategy to play a Poker game, such as choosing voluntarily to lose in the primary game 104 to prevent an addition of a no-credit event in the auxiliary game 103. Depending on the probabilities of winning a prize in the auxiliary game 103 with the above defined classes of events, the prizes and criteria to win prizes in the auxiliary game 103 could differ from the ones used when the primary game is Blackjack.

Some variants could be implemented in the auxiliary game when Poker is the primary game in part because of the number of different outcomes and in part because of the different probabilities associated with each of these outcomes. For example, a straight flush or better could erase a no-credit event and add a new credit event in the auxiliary game. Another example of a variant could be that two credit events are only paid when they are entered sequentially in
the auxiliary game.

[0041] Different displays can be used in conjunction with the invention. In the gaming matrix display 110, the columns and rows could be interchanged to yield a different embodiment of the display 110. An alternative display could be to have the number of columns 141-148 and rows 155-151 modified to allow additional type of prize payouts. The information display outputs 115-124 could be modified accordingly. FIG. 10 illustrates an alternative display wherein the winning symbols 160 and losing symbols 161 are displayed on a single line and payment symbols 162 are not needed. The prize paid indicators 175 move along the symbols 160 and 161 in the auxiliary game display when new prizes are paid according to winning symbols 160. The prize paid indicator 175 move along with the last winning symbol 160 paid for this prize. The unpaid prizes indicator 176 in the last eight entries of the display stay beside the line of symbols 160 and 161. The number of entries can vary for effect and motivation.

[0042] FIG. 11 shows a totally different display wherein the credit events are monitored as blocks 181 and 182 on a scale 180. In this embodiment, no-credit blocks 182 are weight free and credit event blocks 181 have a standard weight. A block from a bank of available blocks 183 is placed on the scale each time a new outcome generating an event in the auxiliary game 103 occurs in the primary game 102. A limited number of blocks 181, 182 and 183 are available to use with the scale 180. Therefore, with this embodiment of displaying information in the auxiliary game 103, the number of events monitored by the auxiliary game 103 is fixed. In this case, the height of the scale is used to control the total number of events. Further, the winning prize is awarded only when all the blocks are attributed and placed on the scale 180 (blocks 181, 182 and all of the blocks 183). Afterward, the scale 180 is emptied, the bank of available blocks 183 is renewed and a new game can is monitored by the auxiliary game 103. The advantage of this particular graphic embodiment is to motivate players to empty the bank of available blocks 183 by placing them all on the scale 180. The player can win a prize corresponding to the accumulation of credit events regardless of the order.

[0043] A totally different embodiment not part of the invention consists in an electronic gaming apparatus 170, such as the one shown in FIG. 12, monitoring the auxiliary game as defined above and used with a live Blackjack game such as those on casino tables. The same rules are used to determine classes of events. This electronic gaming apparatus 170 includes an auxiliary playing screen 171 with a gaming matrix display 110 and information outputs 180. Also, four buttons are present: a losing hand button 172 filling columns with losing symbols 161; a winning hand button 173 filling columns with winning symbols 160; a clear button 177 emptying the whole gaming matrix display 110; and a paying button 178 activating the calculation of prizes, displaying them on the auxiliary playing screen 171 as paid outputs 180, and activating the replacement of the corresponding winning symbols 160 by payment symbols 162.

[0044] To obtain a gaming matrix display 110 corresponding to that seen in FIG. 6, the live Blackjack game must be played as described in example 1 or with a sequence of game outcomes generating the same sequence of events in the auxiliary game. To reproduce the events of the example, a dealer using the electronic gaming apparatus 170 would activate, in order, the clear button 177, the winning hand button 173 once, the losing hand button 172 once, the winning hand button 173 once again and then the paying button 178. It would yield a similar display. TABLE 5 presents, for example purposes, an hypothetical sequence of outcomes differing from the one shown in TABLE 1 and generating the same entries in the electronic gaming apparatus monitoring the auxiliary game.

**TABLE 5. Hypothetical Blackjack game with auxiliary game.**

<table>
<thead>
<tr>
<th>Player’s outcomes</th>
<th>Dealer’s outcome</th>
<th>Primary Game</th>
<th>Auxiliary Game</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) 19</td>
<td>18</td>
<td>Win</td>
<td>Non-event hold</td>
</tr>
<tr>
<td>2) 21</td>
<td>19</td>
<td>Win</td>
<td>Credit event</td>
</tr>
<tr>
<td>3) 19</td>
<td>20</td>
<td>Loss</td>
<td>No-credit event</td>
</tr>
<tr>
<td>4) 21</td>
<td>17</td>
<td>Win</td>
<td>Credit event</td>
</tr>
<tr>
<td>5) 21</td>
<td>23</td>
<td>Win</td>
<td>Credit event</td>
</tr>
<tr>
<td>6) 18</td>
<td>22</td>
<td>Loss</td>
<td>Non-event hold</td>
</tr>
<tr>
<td>7) 23</td>
<td>19</td>
<td>Win</td>
<td>No-credit event</td>
</tr>
<tr>
<td>8) 21</td>
<td>20</td>
<td>Win</td>
<td>Credit event</td>
</tr>
</tbody>
</table>

[0045] FIG. 13 shows a block diagram of the first preferred embodiment, i.e. the electronic gaming apparatus comprising a Blackjack game as primary game. It shows the primary game controller 201, which transmits the results 220 of the primary game to a class determination controller 202. If the result is determined to be a non-event hold 221, the information is held constant 203. If it is not a non-event hold (though a credit event or a no-credit event 222), a matrix controller 204
The method defined in claim 2, wherein:

3. The method as defined in claim 1, further comprising additionally classifying said outcomes in a third class and

2. The method as defined in claim 1, further comprising additionally classifying said outcomes in a third class and

1. An automated method of operating a gaming apparatus (101) to process outcomes of a principal game to determine

Detecting outcomes of the principal game and classifying these outcomes in at least a first class and a second class:

assigning said first class of outcomes a credit event and said second class of outcomes and a no-credit event in said auxiliary game component;

monitoring said credit events and said no-credit events in said auxiliary game component over a predetermined number of consecutive said past events;

displaying a representation of said monitored credit events and no-credit events over at least said predetermined number of consecutive said past events;

determining a prize to be awarded in said auxiliary game component dependent on a number of detected credit events and no-credit events within the predetermined number of consecutive said past events; and

signalling that the prize in said auxiliary game component is to be awarded.

The method as defined in claim 1, further comprising additionally classifying said outcomes in a third class and

assigning said third class of outcomes a non-event hold in said auxiliary game component, whereby avoiding said no-credit events within a series of said credit events and said non-event holds increases the player's chances of winning an auxiliary game prize.

3. The method defined in claim 2, wherein:

said principal game is Blackjack or twenty-one;
a loss in said principal game is classified as said no-credit event;
a win with Blackjack or twenty-one is classified as said credit event;
4. The method defined in claim 2, wherein:

said principal game is a Poker game;
a win in said principal game with a hand of cards corresponding to «3 of a kind» or higher following the rules of Poker is classified as said credit event;
a said hand of cards corresponding to a «pair» following the rules of Poker is classified as said non-event hold; and
a loss in said principal game with a said hand of cards having no rank following the rules of Poker is classified as said no-credit event.

5. The method defined in claim 1, 2, 3 or 4, wherein said prize determining step comprises evaluating said number of credits independently of an order or sequence thereof.

6. The method as defined in any one of claims 1 to 5, wherein said predetermined number of past events is between seven and fourteen.

7. The method as defined in any one of claims 1 to 6, wherein said prize determining step comprises signalling a first prize to be awarded when a first number of credits are detected in said predetermined number of consecutive said past events, and signalling at least one other prize of greater value to be awarded when a predetermined number of credits higher than said first number of credits are detected in said predetermined number of consecutive said past events.

8. The method as defined in claim 1, wherein said step of displaying information is composed of:

displaying a matrix display; and
filling up a row or column of said matrix display each time a new said event occurs in said principal game with symbols corresponding to said credit event or said no-credit event each time a new principal game outcome is detected to which said events are assigned.

9. The method as defined in claim 8, wherein said steps of filling up said matrix is composed of:

erasing said symbols corresponding to oldest said event; and
displaying new said symbols in said matrix display when adding said symbols corresponding to a new said event results in exceeding said predetermined number of past events monitored in said auxiliary game component.

10. The method as defined in claim 8 or 9, further comprising the steps of changing said symbols corresponding to said events that contribute to award a said prize.

11. The method as defined in any one of claims 8 to 10, further comprising the steps of displaying information regarding prizes awarded.

12. An automatic gaming apparatus (101) including an auxiliary game component, the apparatus comprising:

a principal game controller (201) yielding outcomes in a principal game;
class determination means for interpreting said outcomes from said principal game controller (201) and establishing at least first and second class values for said outcomes and assigning a credit event to said first class value and a no-credit event to said second class value in said auxiliary game component;
monitoring means (204) for keeping track of each of said class values provided by said class determination means over a predetermined number of consecutive said past events;
a display (209) showing a representation of said class values over at least said predetermined number of consecutive said past events; and
a payoff controller (206) receiving output from said monitoring means and generating a signal indicating that a prize is to be awarded dependent on a number of credit events and no-credit events during said predetermined number of consecutive said past events.
Patentansprüche

1. Automatisiertes Verfahren zum Betrieb eines Spielgerätes (101), Ergebnisse eines Hauptspieles zu verarbeiten, um einen Gewinn in einer mit dem Hauptspiel gekoppelten Zusatzspielkomponente festzulegen, wobei das Verfahren die folgenden Schritte umfasst:

   Ergebnisse des Hauptspieles zu erfassen und diese Ergebnisse in mindestens eine erste Klasse und eine zweite Klasse zu klassifizieren;
   der ersten Klasse von Ergebnissen ein Guthaben-Ereignis und der zweiten Klasse von Ergebnissen ein Kein-Guthaben-Ereignis in der Zusatzspielkomponente zuzuordnen;
   die Guthaben-Ereignisse und die Kein-Guthaben-Ereignisse in der Zusatzspielkomponente über eine vorbestimmte Zahl von aufeinanderfolgenden genannten vergangenen Ereignissen zu überwachen;
   eine Darstellung der überwachten Guthaben-Ereignisse und Kein-Guthaben-Ereignisse über mindestens die vorbestimmte Zahl von aufeinanderfolgenden genannten vergangenen Ereignissen anzuzeigen;
   einen in der Zusatzspielkomponente zu vergebenden Gewinn in Abhängigkeit von einer Zahl von erfassten Guthaben-Ereignissen und Kein-Guthaben-Ereignissen festzulegen; und
   zu signalisieren, dass der Gewinn in der Zusatzspielkomponente zu vergeben ist.


3. Verfahren wie in Anspruch 2 definiert, wobei:
   das Hauptspiel Black-Jack oder Einundzwanzig ist,
   ein Verlust im Hauptspiel als das Kein-Guthaben-Ereignis klassifiziert wird;
   ein Gewinn mit Black-Jack oder Einundzwanzig als das Guthaben-Ereignis klassifiziert wird;
   ein Gewinn, ohne einundzwanzig zu erreichen, als der Nicht-Ereignis-Haltezustand klassifiziert wird.

4. Verfahren wie in Anspruch 2 definiert, wobei:
   das Hauptspiel ein Poker-Spiel ist,
   ein Gewinn im Hauptspiel mit einer Kartenhand entsprechend «3 Gleiche» oder höher nach den Poker-Regeln als das Guthaben-Ereignis klassifiziert wird;
   eine Kartenhand entsprechend einem «Paar» nach den Poker-Regeln als der Nicht-Ereignis-Haltezustand klassifiziert wird; und

5. Verfahren wie in Anspruch 1, 2, 3 oder 4 definiert, wobei der Gewinnfestlegungsschritt umfasst, die Zahl von Guthaben unabhängig von deren Reihenfolge oder Sequenz zu bewerten.

6. Verfahren wie in einem der Ansprüche 1 bis 5 definiert, wobei die vorbestimmte Zahl von vergangenen Ereignissen zwischen sieben und vierzehn beträgt.


8. Verfahren wie in Anspruch 1 definiert, wobei der Schritt, Informationen anzuzeigen, aus Folgendem besteht:
   eine Matrix-Anzeige anzuzeigen; und
   jedesmal wenn ein neues genanntes Ereignis im Hauptspiel stattfindet, eine Reihe oder Spalte der Matrix-

9. Verfahren wie in Anspruch 8 definiert, wobei die Schritte, die Matrix aufzufüllen, aus Folgendem bestehen:

- die dem ältesten der Ereignisse entsprechenden Symbole zu löschen; und
- die neuen Symbole in der Matrix-Anzeige anzuzeigen, wenn Addieren der Symbole entsprechend einem neuen genannten Ereignis ergibt, dass die vorbestimmte Zahl von in der Zusatzspielkomponente überwachten vergangenen Ereignissen überschritten wird.

10. Verfahren wie in Anspruch 8 oder 9 definiert, das weiterhin die Schritte umfasst, die Symbole entsprechend den Ereignissen, die zu einer Gewinnvergabe beitragen, zu ändern.

11. Verfahren wie in einem der Ansprüche 8 bis 10 definiert, das weiterhin die Schritte umfasst, Informationen hinsichtlich vergebener Gewinne anzuzeigen.

12. Automatisches Spielgerät (101), das eine Zusatzspielkomponente enthält, wobei das Gerät Folgendes umfasst:

- ein Hauptspiel-Steuergerät (201), das Ergebnisse in einem Hauptspiel liefert;
- eine Klassenfestlegungseinrichtung, die dazu dient, die Ergebnisse aus dem Hauptspiel-Steuergerät (201) zu interpretieren und mindestens erste und zweite Klassenwerte für die Ergebnisse aufzustellen und dem ersten Klassenwert ein Guthaben-Ereignis und dem zweiten Klassenwert ein Kein-Guthaben-Ereignis in der Zusatzspielkomponente zuzuordnen;
- eine Überwachungseinrichtung (204), die dazu dient, jeden der von der Klassenfestlegungseinrichtung bereitgestellten Klassenwerte über eine vorbestimmte Zahl von aufeinanderfolgenden genannten vergangenen Ereignissen zu verfolgen;
- eine Anzeige (209), die eine Darstellung der Klassenwerte über mindestens die vorbestimmte Zahl von aufeinanderfolgenden genannten vergangenen Ereignissen zeigt; und

Revendications

1. Procédé automatisé de fonctionnement d’un appareil de jeu (101) afin de traiter les résultats d’un jeu principal pour déterminer un gain dans un composant de jeu auxiliaire couplé au jeu principal, le procédé comprenant les étapes consistant à :

- détecter les résultats du jeu principal et classer ces résultats dans au moins une première catégorie et une deuxième catégorie ;
- attribuer à ladite première catégorie de résultats un événement créditeur et à ladite seconde catégorie de résultats un événement non créditeur dans ledit composant de jeu auxiliaire ;
- surveiller lesdits événements créditeurs et lesdits événements non créditeurs dans ledit composant de jeu auxiliaire pendant un nombre prédéterminé desdits événements passés consécutifs ;
- afficher une représentation desdits événements créditeurs et événements non créditeurs surveillés pendant un moins ledit nombre prédéterminé desdits événements passés consécutifs ;
- déterminer un gain à attribuer dans ledit composant de jeu auxiliaire qui dépend d’un nombre d’événements créditeurs et d’événements non créditeurs détectés dans le nombre prédéterminé desdits événements passés consécutifs ; et
- signaler que le gain dans ledit composant de jeu auxiliaire va être attribué.

2. Procédé selon la revendication 1, comprenant en outre le fait de classer rationnellement lesdits résultats dans une troisième catégorie et d’attribuer à ladite troisième catégorie de résultats un non-événement dans ledit composant de jeu auxiliaire, moyennant quoi, le fait d’éviter lesdits événements non créditeurs dans une série desdits événements créditeurs et de non-événements augmente les chances du joueur de gagner un gain au jeu auxiliaire.
3. Procédé selon la revendication 2, dans lequel :
   
   l'édit jeu principal est le Blackjack ou le Vingt-et-un ;
   une partie perdue dans l'édit jeu principal est classée comme l'édit événement non créditeur ;
   une partie gagnée avec le Blackjack ou le Vingt-et-un est classée comme l'édit événement créditeur ;
   une partie gagnée sans atteindre vingt-et-un est classée comme l'édit non-événement.

4. Procédé selon la revendication 2, dans lequel :
   
   l'édit jeu principal est un jeu de poker ;
   une partie gagnée dans l'édit jeu principal avec une main de cartes correspondant à un « brelan » ou plus selon les règles du poker est classée comme l'édit événement créditeur ;
   une dite main de cartes correspondant à une « paire » selon les règles du poker est classée comme l'édit non-événement ; et
   une partie perdue dans l'édit jeu principal avec une dite main de cartes sans valeur selon les règles du poker est classée comme l'édit événement non créditeur.

5. Procédé selon la revendication 1, 2, 3 ou 4, dans lequel l'édit étape consistant à déterminer le gain comprend l'évaluation dudit nombre de crédits indépendamment d’un ordre ou d’une suite de ces derniers.

6. Procédé selon l’une quelconque des revendications 1 à 5, dans lequel l’édit nombre prédéterminé d’événements passés est compris entre sept et quatorze.

7. Procédé selon l’une quelconque des revendications 1 à 6, dans lequel l’édit étape consistant à déterminer le gain comprend le fait de signaler un premier gain à attribuer lorsqu’un premier nombre de crédits est détecté dans l’édit nombre prédéterminé desdits événements passés consécutifs, et le fait de signaler au moins un autre gain de valeur plus importante à attribuer lorsqu’un nombre prédéterminé de crédits plus élevé que l’édit premier nombre de crédits est détecté dans l’édit nombre prédéterminé d’événements passés consécutifs.

8. Procédé selon la revendication 1, dans lequel l’édit étape consistant à afficher les informations consiste à :
   
   afficher un affichage à matrice ; et
   remplir une ligne ou une colonne dudit affichage à matrice chaque fois qu’un dit nouvel événement se produit dans l’édit jeu principal avec des symboles correspondant audit événement créditeur ou audit événement non créditeur à chaque fois qu’un nouveau résultat du jeu principal est détecté auquel lesdits événements sont attribués.

9. Procédé selon la revendication 8, dans lequel lesdites étapes consistant à remplir ladite matrice consistent à :
   
   effacer lesdits symboles correspondant auxdits événements les plus anciens ; et
   afficher lesdits nouveaux symboles dans l’édit affichage à matrice lorsque l’ajout desdits symboles correspondant à un dit nouvel événement résulte en ce que l’édit nombre prédéterminé d’événements passés surveillés dans l’édit composant de jeu auxiliaire est dépasse.

10. Procédé selon la revendication 8 ou 9, comprenant en outre les étapes consistant à changer lesdits symboles correspondant auxdits événements qui contribuent à l’attribution d’un gain.

11. Procédé selon l’une quelconque des revendications 8 à 10, comprenant en outre les étapes consistant à afficher des informations concernant les gains attribués.

12. Appareil de jeu automatique (101) incluant un composant de jeu auxiliaire, l’appareil comprenant :
   
   un dispositif de commande du jeu principal (201) qui produit des résultats dans un jeu principal ;
   des moyens de détermination de catégories pour interpréter lesdits résultats provenant dudit dispositif de commande du jeu principal (201) et établir au moins des valeurs de première et de deuxième catégories pour lesdits résultats et attribuer un événement créditeur à ladite valeur de première catégorie et un événement non créditeur à ladite valeur de deuxième catégorie dans l’édit composant de jeu auxiliaire ;
   des moyens de surveillance (204) pour garder la trace de chacune desdites valeurs de catégories fournies par
lesdits moyens de détermination de catégories pendant un nombre prédéterminé desdits événements passés consécutifs ;
un dispositif d’affichage (209) montrant une représentation desdites valeurs de catégories pendant au moins ledit nombre prédéterminé desdits événements passés consécutifs ; et
un dispositif de commande des règlements (206) qui reçoit un signal en sortie provenant desdits moyens de surveillance et qui génère un signal indiquant qu’un gain va être attribué en fonction d’un nombre d’événements créditeurs et d’événements non créditeurs au cours dudit nombre prédéterminé desdits événements passés consécutifs.
[Image of a diagram with number sequences and symbols]
Play principal game to final outcome

Determine class of event for aux. game

Is credit event or no credit event?

Yes
Update auxiliary game display

No

Is it winning state present in aux. game?

Yes
Display payoff message

No
REFERENCES CITED IN THE DESCRIPTION

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