METHODS AND DEVICES FOR PLAYING MULTI-LINE CARD GAMES

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ABSTRACT

Methods and devices for playing a multi-line card game, e.g. a poker game, are described. An array of cards arranged in columns and rows is provided, together with one or more paylines. Each time a winning combination occurs, the cards involved in the combination are removed and the voids thus formed are filled by new cards, thus creating the possibility of automatic generation of winning combinations. If no winning combination is shown on the array, the player can swap two cards in order to form a desired winning combination.
Figure 9
Player selects two cards to swap

Each card is moved to the other's position

Valid pay?

YES

High-light winning cards, pause, then remove

Random Kernel

New cards animate to the voids

Valid pay?

YES

NO

Figure 11
METHODS AND DEVICES FOR PLAYING MULTI-LINE CARD GAMES

FIELD

[0001] The present disclosure relates to card games. In particular, it relates to methods and devices for playing multi-line card games.

SUMMARY

[0002] According to a first aspect, a method for playing a multi-line card game is provided, comprising: providing an array of cards arranged in columns and rows; providing a plurality of paylines; each time one or more winning combinations are obtained, removing cards involved in the one or more winning combinations, thus forming voids in the array; and filling the voids in the array by automatic dealing of new cards.

[0003] According to a second aspect, a processor-operated device is provided, comprising: a screen, the screen displaying a multi-line card game with a plurality of paylines; a first software arrangement for removing, each time one or more winning combinations are obtained, cards involved in the one or more winning combinations are removed, thus forming voids in the array; a second software arrangement for filling the voids in the array by automatic dealing of new cards in further presence of absence of automatic shifting of one or more cards already present in the array; and a third software arrangement for allowing selection, by a player, of two cards of the array of cards, wherein the two selected cards are swapped if one or more winning combinations occur upon swapping and the two selected cards are not swapped if no winning combinations occur upon swapping.

[0004] According to a third aspect, a method for playing a multi-line card game is provided, comprising: providing an array of cards arranged in columns and rows; providing one or more paylines; allowing a player to select adjacent cards and attempt exchanging the adjacent cards to obtain one or more winning combinations; and either allowing exchange of the adjacent cards if the one or more winning combinations can be obtained or preventing the exchange of the adjacent cards if the one or more winning combinations cannot be obtained.

[0005] According to a fourth aspect, a method for playing a multi-line card game is provided, comprising: providing an array of cards arranged in columns and rows; each time one or more winning combinations are obtained, removing cards involved in the one or more winning combinations, thus forming voids in the array; and filling the voids in the array by automatic dealing of new cards, wherein the one or more winning combinations are established by a pattern not necessarily limited to a column or a row.

[0006] According to a fifth aspect, a method for playing a multi-line card game is provided, comprising: providing an array of cards arranged in columns and rows; if one or more winning combinations are obtained, removing cards involved in the one or more winning combinations; and replacing the removed cards by dealing of new cards.

[0007] A first advantage of the present disclosure is that of providing a player with the opportunity to make multiple, winning hands per wager. Moreover, the player is provided with the opportunity to create a winning hand through the strategic use of other cards or hands. Another advantage is that of allowing a player to play a plurality of hands simultaneously, e.g., 10 or 12 hands.

BRIEF DESCRIPTION OF THE DRAWINGS

[0008] FIG. 1 shows an array of cards arranged in columns and rows presented on a screen of an electronic device, such as a computer or a stand-alone gaming unit.

[0009] FIG. 2 shows a player-generated swapping of two adjacent cards.

[0010] FIG. 3 shows the winning combination obtained through the swapping of FIG. 2, where the cards involved in the winning combination are highlighted.

[0011] FIG. 4 shows how voids are filled in the array of cards upon removal of the cards involved in the winning combination of FIG. 3.

[0012] FIG. 5 shows two automatic winning combinations obtained by virtue of the card replacement of FIG. 4, where the cards involved in the winning combination are highlighted.

[0013] FIG. 6 shows how voids are filled in the array of cards upon removal of the cards involved in the winning combination of FIG. 5.

[0014] FIG. 7 shows an automatic winning combination obtained by virtue of the card replacement of FIG. 6, where the cards involved in the winning combination are highlighted.

[0015] FIG. 8 shows how voids are filled in the array of cards upon removal of the cards involved in the winning combination of FIG. 7.

[0016] FIG. 9 shows the entire array filled by virtue of the card replacement of FIG. 8.

[0017] FIG. 10 shows schematically a processor-operated device suitable to host, display and allow play with the card game of this disclosure.

[0018] FIG. 11 shows a flowchart diagram explaining some software-made logic operations made during the game.

DETAILED DESCRIPTION

[0019] FIG. 1 shows a playfield (10) comprising an array of twenty-five cards (20) arranged in five columns and five rows. Also shown are five horizontal paylines (30), five vertical paylines (40) and two diagonal paylines (50). The diagonal paylines (50) go from the top-left corner of the array to the bottom-right corner, and from the bottom-left corner of the array to the top-right corner. For clarity reasons, only the top horizontal payline, leftmost vertical payline and bottom-left to top-right diagonal payline have been shown in the figure.

[0020] The number of cards and the number of paylines are for exemplary purposes only. For example, an array of N x N cards could be provided for an N-card game. Moreover, independently of the number of paylines (which, by way of further example, could include horizontal paylines and vertical paylines only), one of the embodiments of the present disclosure provides that a player is able to select a subset of all paylines available to him or her.

[0021] The arrangement of FIG. 1 can be provided on the screen of a computer or a stand-alone machine. The computer or machine can comprise one or more RISC processors, if desired. See, for example, the processor-operated device (800) of FIG. 10, which includes a screen (810) and a software arrangement, e.g. software code, for operating the method described below. The person skilled in the art will
understand that also other embodiments are possible, such as the screen of a mobile or cellular phone, personal digital assistant (PDA), a computer, a slot machine, a TV set or any other digital media device, and so on. The various buttons and commands shown in FIG. 1 can be activated by way of a touch screen, a mouse, selection buttons etc. The stand-alone machine can be, for example, a coin-, card- or credit-operated entertainment machine and can be installed in places such as casinos, restaurants, pubs, video arcades and so on.

[0022] As shown in FIG. 2, the main player-generated move of the method according to the present disclosure is a card-swapping move (60), where the position of two adjacent cards (70, 80) is exchanged. While FIG. 2 shows a horizontal swapping movement, other swapping movements are also possible, such as a vertical swapping movement of two vertically adjacent cards and a diagonal swapping movement of two diagonally adjacent cards. Other embodiments of the present disclosure can provide that also non-adjacent cards can be swapped.

[0023] The rationale behind the card swapping is that of forming one or more winning combinations along at least one of the horizontal, vertical or diagonal paylines. In the example of FIG. 2, the movement will put the Queen of Diamonds (80) on the same vertical payline (100) (see FIG. 3) of the Queen of Spades (90), thus allowing a ‘Jacks or Better’ winning combination to be obtained. As shown in FIG. 3, the cards involved in the combination have been highlighted. The person skilled in the art will understand that any combination satisfying a criterion preset by the manufacturer, gaming company or operator can be selected to represent a “winning combination”. By way of example and not of limitation, any pair can be set to represent a winning combination. Moreover, a return rate can be controllable in accordance with the gaming company policy and local regulations. For example, the return rates (payback percentages) can be anywhere between 89% and 98%. Such returns can be achieved, for example, through selection between preset paytables.

[0024] Turning back to FIG. 1, a PAYS window (110) is shown, which indicates the amount of credits to be provided to the player for a ‘Jacks or Better’ combination, in this case one credit. Therefore, one credit will be added to the player’s balance, and an updated balance will be shown in the BALANCE window (120) of FIG. 1.

[0025] At the same time or immediately thereafter, the cards involved in the combination (in this case cards (80) and (90)) will be discarded (thus creating two voids in the array) and an equal amount of cards will be automatically dealt, to fill the two voids. Throughout the present disclosure, the term “automatically” or “automatic” will be used to indicate absence of player intervention. Filling of the voids is shown by arrow (130) in FIG. 4, where newly introduced cards (140, 150) will fill the void formed by previously discarded cards (80, 90). It is worth noting that, according to the embodiment discussed herein, only the cards involved in the combination are removed, while the other, non-winning cards, remain in play. In particular, the non-winning cards will remain in play until either there are no winning possibilities or the player re-deals the playfield, as later explained in more detail. However, alternative embodiments are possible, where not only the cards involved in the combination, but also cards pertaining to the same row or column of the cards involved in the combination are discarded. Moreover, the reader will appreciate that, differently from usual poker games, there is no player involvement with reference to held and discarded cards. Turning to the newly introduced cards (140), (150), those cards can be selected randomly by the machine or software from a new deck of cards. Alternatively, the new cards can be selected by the same deck of cards of the previous selection. Further alternatives can comprise a mixed selection (part from the old deck, part from a new deck), a multi-deck selection and so on.

[0026] As better shown in FIG. 5, card (140) is an Ace of Diamonds, while card (150) is a Jack of Hearts. Their presence in the array will automatically create two different winning combinations: a first ‘Jacks or Better’ combination along vertical payline (100) and a second ‘Jacks or Better’ combination along horizontal payline (160). The combination along vertical payline (100) will involve cards (150) and (170) (Jack of Hearts and Jack of Clubs, respectively). The combination along horizontal payline (160) will involve cards (140) and (180) (Ace of Diamonds and Ace of Clubs, respectively). As a consequence of these two combinations, similarly to what explained above with reference to the first winning combination, two credits (one credit for every credit bet on the winning payline) will be added to the player’s balance, and the updated balance will be shown in window (120) of FIG. 1.

[0027] As soon as this is done, the cards involved in the combination (in this case cards (140), (150), (170) and (180)) will be discarded and an equal amount of cards will be dealt, to fill the four voids in the array. This is shown by arrows (190, 200) in FIG. 6, where cards (210, 220, 230, and 240) will fill the voids formed by previously discarded cards (140, 150, 170 and 180).

[0028] As better shown in FIG. 7, card (210) is a Five of Clubs, card (220) is a Seven of Clubs, card (230) is a Three of Spades, and card (240) is an Ace of Clubs. Their presence in the array will create a ‘3 of a Kind’ winning combination along horizontal payline (250), involving cards (230, 260 and 270). As a consequence of this combination, similarly to what explained above with reference to the previous winning combinations, three credits (in accordance with the values of table (110) of FIG. 1) will be added to the player’s balance, and the updated balance will be shown in window (120) of FIG. 1.

[0029] As soon as this is done, the cards involved in the combination (in this case cards (230), (260) and (270)) will be discarded and an equal amount of cards will be dealt, to fill any voids in the array. In the example shown in FIG. 7, some cards, located in the same vertical line of the discarded cards, will remain above the void generated by discarding cards (230), (260) and (270). In particular, i) cards (210) and (220) will remain above the void generated by discarding card (230), ii) cards (240) and (280) will remain above the void generated by discarding card (260), and iii) cards (290) and (300) will remain above the void generated by discarding card (270). As a consequence of this, as better shown in FIG. 8, cards (210), (220) will move one step downward in the direction of arrow (310), cards (240), (280) will move one step downward in direction of arrow (320), and cards (290), (300) will move one step downward in direction of arrow (330). This movement will create three voids in the three leftmost positions of the top horizontal line, which will be filled by three new cards (340), (350) and (360), as also shown in FIG. 9.

[0030] The reader will appreciate that while some winning combinations occur upon a card swapping performed by the player (see FIGS. 2 and 3), some other winning combinations occur automatically as a consequence of automatic introduction of new cards and automatic card shifting upon filling of
the voids created by discarding the previously winning cards (see FIGS. 4 through 9). Automatic occurrence of winning combinations creates a pleasant visual effect to the player, especially if one automatic win follows another, with a consequent creation of a nice cascading effect, not to mention the quick increase of the balance at the player's disposal.

[0031] In the examples shown in FIGS. 4, 6 and 8, void filling by way of card shifting and card dealing occurs in a top-to-bottom direction. However, the person skilled in the art will appreciate that card shifting and card dealing could also occur in a bottom-to-top, right-to-left, or left-to-right direction. Additionally, the directions could also change during the game, either randomly or according to a pattern.

[0032] As initially discussed with reference to FIG. 1, one embodiment of the present disclosure is based on a plurality of paylines. According to a further related embodiment, each time a winning combination is obtained, the payline or paylines related to the winning combination or combinations are shown or highlighted to the player, in order to help the player's immediate understanding of the kind of winning combination(s) reached. See, for example, FIG. 3, where payline (100) is shown, FIG. 5, where paylines (100) and (160) are shown, FIG. 7, where payline (250) is shown, or FIG. 9, where payline (370) is shown.

[0033] Turning back to the representation shown in FIG. 1, some additional components not discussed so far will be now explained. In particular, a DEAL button or command (400) is shown, which a) can allow the game to begin as soon as activated and b) allows the player to redeem the entire playfield at any time during the game.

[0034] A SWAP indicator (410) can also be shown. This indicator allows the player to see how much he or she is paying to swap the position of two cards. The amount of the swap cost is usually selected by the gaming company and may be linked to the amounts shown in the PAYS window (110).

[0035] A BET indicator (420) can also be present, showing the amount to be paid by a player each time the DEAL command (400) is activated. In the example shown in FIG. 1, the BET amount is set to 12. In other words, there will be instances where no combination will be present in the array and no card swapping will allow a winning combination. If this happens, the player will either cash out or start a new hand by hitting the DEAL button (400). As soon as this happens, a new set of twenty-five cards will be dealt and the BALANCE (120) of the player will be decreased by the amount set in the BET area (420). Such amount can either be set by the gaming company or by the player herself. Moreover, as already explained above, the DEAL command (400) allows a player to redeem the entire playfield independently of the possibility of a winning card swapping.

[0036] Also shown in FIG. 1 is a WIN section (430). Section (430) allows a player to understand the amount of a particular win. Each time a new card or cards are dealt, the WIN counter is reset to zero. In a further embodiment, a WINNING HANDS section (not shown) can be provided, to provide track of some of the previous wins, similarly to what done at Roulette tables.

[0037] According to an embodiment of the present disclosure, the method is software-based and such software can be provided on a host computer and players can play the game on client devices. Therefore, Internet online gaming, networked gaming within a casino, networked gaming between casinos, large novelty devices, non-gaming variations both online and offline, and game consoles can be contemplated.

[0038] Now that the operation of the method according to the present disclosure has been explained in detail, the technical underpinnings of some of the moves discussed so far will be addressed.

[0039] The card swapping mechanism shown, for example, in FIG. 2 can comprise 1) selection of a first card; 2) selection of a second, adjacent, card; and either 3) swapping the two cards if a winning combination can be obtained after swapping, or 4) keeping the two cards in place if no winning combination is possible upon swapping. By way of example and not of limitation, step 4) can show the cards changing their position for a brief moment and immediately thereafter returning to their original position. The steps discussed in the present paragraph can be performed by software means by analyzing each wager-line the swapped cards are contained within and comparing each resulting hand against wins described by the pay table, starting, for example, with Jacks or Better pairs in the embodiment discussed so far.

[0040] With reference to the mechanism for automatically dealing cards to fill any voids in the array, FIG. 11 provides a schematic flowchart showing some of the logic operations involved.

[0041] As shown in FIG. 11, a player initially selects two cards to swap (step S1). In response to that selection, each card is moved to the other's position (step S2). In step S3 presence of a valid pay, i.e. at least one winning combination, is assessed. If there is no valid pay, the flow returns to its starting condition. If, on the other hand, there is a valid pay, the winning cards are highlighted and then removed after a pause (step S4). In step S5 a random process occurs to randomly select the new cards to be dealt. In step S6 the new cards animate to the voids (shifting of some existing cards may also occur). If there is a valid pay (step S7, YES branch) the flow returns to step S4. On the other hand, if there is no valid pay (step S7, NO branch), the flow returns to its starting condition.

[0042] As usual with games of this kind, celebratory animations and audio play can be provided in conjunction with particular moments of the game, such as winning hands, newly dealt cards, their sliding in position from off screen, and so on.

[0043] According to another embodiment, one or more cards may be designated as wild cards or one or more Jokers may be added to the playfield and designated as wild cards. This allows the methods of the present disclosure to be also applied to video poker games such as Deuces Wild or Joker's Wild.

[0044] According to a further embodiment, selection of the new cards to be dealt can be done in a non-random manner.

[0045] According to yet another embodiment, a progressive or variable payout can be established for a winning hand.

[0046] Another embodiment can tie a payout to patterns overlaid in the playfield rather than one of the paylines. For example, in a variation of play that favors Flush pays, arranging the cards so that the same suit in each corner and the center place of the array would result in 5 cards of equal suit, paying either the equivalent Flush pay or some other predetermined amount. To vary the difficulty of completing the pattern, the number of cards needed to fulfill the pattern can be variable from one card to the entire N×N array.

[0047] According to an additional embodiment, also non-adjacent cards (i.e. cards from any two locations in the array) can be swapped.
Accordingly, what has been shown are methods and devices for playing multi-line card games. While these methods and devices have been described by means of specific embodiments and applications thereof, it is understood that numerous modifications and variations could be made thereto by those skilled in the art without departing from the spirit and scope of the disclosure. It is therefore to be understood that within the scope of the claims, the disclosure may be practiced otherwise than as specifically described herein.

4. The method of claim 8, wherein the automatic dealing of the new cards occurs in a direction selected from a group consisting of: top-to-bottom direction, bottom-to-top direction, left-to-right direction, and right-to-left direction.

5. The method of claim 8, wherein the filling the voids in the array also includes automatic shifting of one or more cards already present in the array.

6. (canceled)

7. The method of claim 8, wherein the two cards are adjacent cards.

8. A method for playing a multi-line card game comprising: providing an array of cards arranged in columns and rows; providing a plurality of paylines; selecting two cards of the array of cards, wherein the two selected cards are swapped if one or more winning combinations are to occur upon swapping, and are kept in place if no winning combination can occur upon swapping; setting, prior to swapping, a cost associated with the swapping to allow wagering on the swapping; each time one or more winning combinations are obtained, removing cards involved in the one or more winning combinations, thus forming voids in the array, the cards involved in the one or more winning combinations being the only cards removed; and filling the voids in the array by automatic dealing of new cards.

9. The method of claim 8, wherein the selecting is allowed each time no winning combinations are present in the array of cards.

10. The method of claim 8, wherein the plurality of paylines include at least one of: horizontal paylines, vertical paylines and diagonal paylines.

11. The method of claim 10, wherein a subset of the plurality of paylines is selectable by a player.

12. The method of claim 8, wherein the method is for playing multi-line poker games.

13. The method of claim 8, wherein the method is electronically implemented.

14. A processor-operated device comprising: a screen, the screen displaying a multi-line card game with a plurality of paylines;

a first software arrangement for removing, each time one or more winning combinations are obtained, cards involved in the one or more winning combinations are removed, thus forming voids, the cards involved in the one or more winning combinations being the only cards removed;

a second software arrangement for filling the voids by automatic dealing of new cards in further presence of absence of automatic shifting of one or more cards already present;

a third software arrangement for allowing selection, by a player, of two cards, wherein the two selected cards are swapped if one or more winning combinations occur upon swapping and the two selected cards are not swapped if no winning combinations occur upon swapping;

and

a fourth software arrangement for setting, prior to swapping, a cost associated with the swapping to allow the player to wager on the swapping.

15-16. (canceled)

17. The device of claim 14, wherein the two selected cards are horizontally, vertically or diagonally adjacent cards.

18. The device of claim 14, wherein the processor is a RISC processor.

19. The device of claim 14, wherein the device is selected between a mobile or cellular phone, a personal digital assistant, a computer, a slot machine, and a TV site.

20. The device of claim 14, wherein the device is a digital media device.

21. The device of claim 14, wherein the first, second and third software arrangement are software code residing remotely of the device.

22. The device of claim 14, further comprising commands comprising one or more of the following: setting an amount of each bet, and requesting a new array of cards to be dealt.

23. The device of claim 14, wherein the setting the swapping-cost command is not a player-generated command.

24. The device of claim 14, wherein the screen further displays one or more of the following sections: a balance section, a win section, a total win section, and a winning hands section.

25. The device of claim 14, wherein each time the one or more winning combinations are obtained, the cards involved in the one or more winning combinations are highlighted before being removed.

26. The device of claim 25, wherein each time the one or more winning combinations are obtained, the paylines involved in the one or more winning combinations are shown.

27.-34. (canceled)