GAMING APPARATUS WITH FEATURE GAME

FIELD OF INVENTION

The present invention relates broadly to a gaming apparatus, to a method of triggering a feature game on a gaming apparatus, and to a computer readable data storage medium having stored thereon computer code means for instructing a computer processor of a gaming apparatus to execute a method of triggering a feature game on the gaming apparatus.

BACKGROUND

In the gaming industry, some gaming machines contain feature games in addition to main games. The feature games typically provide additional sources of entertainment for players by increasing the chances of bonus prizes being awarded to players.

A feature game is typically triggered by a random event that occurs during play of a main game. However, due to the random event triggering, a player is unable to judge if or when the feature game may be activated. As such, there is no perceived progression towards the "reward" of the feature game, which limits the effectiveness of using the feature game to increase player enjoyment.

Hence, there exists a need for a gaming apparatus with a feature game that seeks to address the above problem.

SUMMARY

In accordance with a first aspect of the present invention, there is provided a gaming apparatus, comprising: a main game; a feature game; and an accumulator for

accumulating one or more parameters based on results of the main game; wherein an activation of the feature game is triggered by at least one parameter reaching a predetermined value.

The parameters may comprise a first parameter accumulated based on negative results of the main game, and a second parameter accumulated based on positive results of the main game.

The accumulator may be arranged for displaying current values of the parameters.

The gaming apparatus may further comprise a stimulator module for stimulating the player based on the results of the main game.

The stimulator module may be arranged for visual stimulation, audio stimulation or both.

The stimulator module may be arranged for displaying one or more animated opponent characters as part of the visual stimulation, and the feature game may comprise selection of one of the opponent characters for involvement in the feature game.

The gaming apparatus may further comprise a feature game credit pool for accumulating credit and for awarding prizes resulting from the feature game.

The accumulator may clear the accumulated parameters in increments over a pre-determined period of time when main game credits reach zero.

The gaming apparatus may be linked to one or more other gaming apparati, and a credit pool for the feature game may be linked between the gaming apparati.

In accordance with a second aspect of the present invention, there is provided a method of triggering a feature game on a gaming apparatus, the method comprising: providing a main game on the gaming apparatus; accumulating one or more parameters based on results of the main game on the gaming apparatus; and triggering activation of the feature game based on at least one parameter reaching a predetermined value.

The parameters may comprise a first parameter accumulated based on negative results of the main game, and a second parameter accumulated based on positive results of the main game.

The method may further comprise displaying current values of the parameters.

The method may further comprise stimulating the player based on the results of the main game.

The stimulating may be visual stimulation, audio stimulation or both.

The method may further comprise displaying one or more animated opponent characters as part of the visual stimulation, and the feature game may comprise selecting one of the opponent characters for involvement in the feature game.

The method may further comprise accumulating credit in a feature game credit pool and awarding prizes resulting from the feature game using the credit pool.

The method may further comprise clearing the accumulated parameters in increments over a pre-determined period of time when main game credits reach zero.

The method may further comprise linking the gaming apparatus to one or more other gaming apparati, and linking a credit pool for the feature game between the gaming apparati.

In accordance with a third aspect of the present invention, there is provided a computer readable data storage medium having stored thereon computer code means for instructing a computer processor of a gaming apparatus to execute a method of triggering a feature game on the gaming apparatus, the method comprising: providing a main game on the gaming apparatus; accumulating one or more parameters based on results of the main game on the gaming apparatus; and triggering activation of the feature game based on at least one parameter reaching a predetermined value.

BRIEF DESCRIPTION OF THE DRAWINGS

Embodiments of the invention will be better understood and readily apparent to one of ordinary skill in the art from the following written description, by way of example only, and in conjunction with the drawings, in which:

Figure 1 is a schematic perspective view of a gaming machine in an example embodiment.

Figure 2 is a screenshot of a main game screen in an example embodiment.

Figure 3 is a screenshot showing a selected computer opponent for playing a feature game in an example embodiment.

Figure 4 is a screenshot showing a feature game feature in an example embodiment.

Figure 5 is a screenshot showing another feature game feature in an example embodiment.

Figure 6 is a schematic diagram of a network linking a plurality of gaming machines in an example embodiment.

Figure 7 is a schematic drawing of a computer system for implementing a method and gaming machine in accordance with an example embodiment.

Figure 8 shows a flow chart illustrating a method of triggering a feature game on a gaming apparatus according to an example embodiment.

DETAILED DESCRIPTION

In an example embodiment, a feature game is provided and may be played separately from a main game.

With reference to Figure 1, the example embodiment can be implemented on a gaming machine 100. The game machine 100 comprises a main game liquid crystal display (LCD) screen 102, a feature game LCD screen 104, a keyset 106 of buttons, a credit input mechanism in the form of a coin slot 108 and a prize tray 110. The main game LCD screen 102 displays the main game when it is being played and the feature game LCD screen 104 displays the feature game when the feature game has been activated. The main game LCD screen 102 and the feature game LCD screen 104 are incorporated with touch screen technology to allow the player to play the main game and the feature game. The keyset 106 of buttons allows a player to operate the gaming machine 100. The coin slot 108 allows the player to insert coins when required, to operate the games in the gaming machine 100, while the prize tray 110 allows cash prizes to be given to the player. The gaming machine further comprises a speaker 112 that is utilised to output programmed sound effects corresponding to the games stored in the gaming machine 100. In addition, the feature game LCD screen 104 and the speaker 112 are coupled to a processor 114 installed in the gaming machine 100 for stimulating the player through visual effects, audio effects or both.

Figure 2 is a screenshot 200 of the main game LCD screen 102 in the example embodiment. The main game is graphically represented as a reel game 202 which involves matching of a pre-determined sequence of graphical symbols

e.g. 204 on the reels. An Anger Bar 206 and a Happiness Bar 208 are also displayed. The Anger Bar 206 and the Happiness Bar 208 are animated visual representations of an accumulator program implemented on the gaming machine 100 (Figure 1). When the player loses a turn of the main game, a percentage of the Anger Bar 206 is incremented. On the other hand, whenever the player wins a turn of the main game, a percentage of the Happiness Bar 208 is incremented. The increments of the respective Bars 206, 208 are based on factors such as the win or loss amount of the player and the game play frequency. When either the Happiness Bar 208 or the Anger Bar 206 are full, a feature game is triggered. In the example embodiment, after the triggering event, the player can play the feature game without paying additional credits.

The triggering of the feature game is thus based on the accumulated win/loss parameter values of the accumulator, as represented by the Anger Bar 206 and the Happiness Bar 208. The visual representations of the accumulator (ie. the Bars 206, 208) provide an indication to the player showing the "progression" towards playing the feature game and receiving the "reward" of the feature game. Therefore, the player is able to judge if and when the feature game may be activated. This can increase the player's enjoyment and interest in the gaming machine.

In the following description, the feature game in the example embodiment is described. The feature game is referred to as the HIT/TIP feature game.

The HIT/TIP feature game, when triggered, is displayed on the feature game LCD screen 104 (Figure 1). Upon triggering of the HIT/TIP feature game, the player selects one computer opponent from a number of computer opponents displayed on the feature game LCD screen 104 to be "hit" or "tipped". Figure 3 shows a screenshot 302 of the feature game LCD screen 104 where a selected computer opponent 304 is displayed. If the feature game was triggered by the event when the Anger Bar 206 (Figure 2) is full, an animation of the opponent character 304 being "physically hit" is displayed (see the screenshot 402 in Figure 4). On the other hand, if the feature game was triggered by the event when the Happiness Bar 208 (Figure 2) is full, the selected computer opponent is '"tipped" (see the screenshot 502 in Figure

5). This activates an animation of the selected computer opponent being given a tip or a bonus.

In the HIT/TIP feature game, after the animation of "hitting" the computer opponent (see Figure 4) ends, a random amount of credits is recouped by the player from the computer opponent. A graphics illustrating the random amount of credits or free main games "dropping" from the computer opponent once the "hitting" commences is displayed. Similarly, after the animation of "tipping" the computer opponent (see Figure 5) ends, an animation of the computer opponent returning a gift box containing a random number of credits or free main games is displayed.

As bonus prizes are awarded to the player, there is an additional incentive to continue playing the main game for a chance to activate the feature game, thus prolonging playing time at the gaming machine. Playing the feature game also provides an element of further participation and decision-making to the player (e.g. selecting the computer opponent).

After the HIT/TIP feature game has concluded, the randomly assigned prizes for each of the computer opponents are revealed. As such, prizes that would have been paid had the player selected other computer opponents, after the triggering event of the HIT/TIP feature game, are displayed. This provides the player with a judgement of the winning opportunities in the feature game. Revealing the random prizes assigned to each computer opponent can thus provide the player with a sense of "fairness", and a further incentive for the player to play the main game in order to activate the feature game. For example, the player may prolong playing time at the gaming machine to play further feature games if the player sees other prizes having higher values than the prize paid out to the player.

In the example embodiment, the feature game may allow the player to either vent his frustration or to celebrate his winnings after the feature game has been triggered. By providing the player with a feature game that reflects his/her emotions, the HIT/TIP feature game thus provides more entertainment to the player.

Turning back to the awarding of prizes by the HIT/TIP feature game, the credits that are awarded by the feature game to the player are paid out from a credits pool stored in the gaming machine. The gaming machine is programmed such that the credits pool of the feature game is not awarded to the player in a single payout.

Returning back to Figure 2, the relevant accumulator Bar 206 or 208 that triggered the feature game is cleared to zero after the player finishes playing the feature game. On the other hand, the accumulator Bars 206, 208 are not completely cleared when the amount of game credits available to play the main game becomes zero. This can happen e.g. when the player stops playing the gaming machine. Rather, the Bars 206, 208 are programmed to be cleared in gradual steps over time when the amount of game credits is zero e.g. when the gaming machine is not being used. Clearing the Bars 206, 208 gradually may provide new players with an opportunity to visually judge and compare the accumulator bars e.g. Bars 206, 208 displayed on different gaming machines when deciding on which gaming machine to start playing. The benefit to the players for choosing accumulator bars e.g. Bars 206, 208 at a high level is that it may take a lesser time to activate the feature game.

Returning to Figure 1, in the example embodiment, the different computer opponents from which one opponent is chosen as part of playing the feature game are also displayed on the feature game LCD screen 104 during the progression of the main game. These animated opponents or characters are programmed to stimulate the player according to the results of the main game. The stimulation may be in the form of the animated opponents gesticulating or laughing at the player when the player loses the main game or displaying expressions of dejection when the player wins the main game etc. The animated opponents are modelled after ambitious historical figures such as Cao Cao, an Egyptian Queen or ZeTian XinZhang, in the example embodiment.

Figure 6 shows a plurality of gaming machines 604 being linked together. Players operating each of the plurality of gaming machines 604 may activate and play the feature game as described above. A central credits pool 606 is generated with credit pool contributions from each machine. This increases the credits pool available for pay out of credits in relation to the feature game. A larger credits pool provides an increased incentive for a player to play the feature game.

The example embodiment above can be implemented on a computer controlled gaming machine. It may be implemented as software, such as a computer program being executed within the gaming machine, and instructing the gaming machine to conduct the gaming process of the example embodiment.

The gaming machine may comprise a computer module 702, schematically shown in Figure 7. The computer module 702 in the example includes a processor 718, a Random Access Memory (RAM) 720. The computer module 702 also includes a number of Input/Output (I/O) interfaces, for example I/O interface 724 to a display 708 and I/O interface 726 to speaker 727.

The components of the computer module 702 typically communicate via an interconnected bus 728 and in a manner known to the person skilled in the relevant art.

The application program is typically supplied to the user of the gaming machine 700 encoded on a data storage medium such as a CD-ROM or a flash memory module such as a memory card/stick and read utilising a corresponding data storage medium drive of a data storage device 730. The application program is read and controlled in its execution by the processor 718. Intermediate storage of program data maybe accomplished using RAM 720.

Figure 8 shows a flow chart 800 illustrating a method of triggering a feature game on a gaming apparatus according to an example embodiment. At step 802, a main game is provided on the gaming apparatus. At step 804, one or more parameters are

accumulated based on results of the main game on the gaming apparatus. At step 806, activation of the feature game is triggered based on at least one parameter reaching a predetermined value.

The example embodiment described above provides visual representations indicating to the player the progression towards playing the feature game and receiving the prizes awarded by the feature game. The player can thus judge if and when the feature game may be activated. This may increase the player's enjoyment and interest in the gaming machine.

Additionally, by playing the feature game in the example embodiment, the interaction between the player and the gaming machine may also increase based on the stimulation by the animated computer opponents and the awarding of prizes by the feature game. Furthermore, the feature game may also allow the player to either vent his frustration or to celebrate his winnings. Existing gaming machines do not incorporate such reflections of emotions into games.

It will be appreciated by a person skilled in the art that numerous variations and/or modifications may be made to the present invention as shown in the specific embodiments without departing from the spirit or scope of the invention as broadly described. The present embodiments are, therefore, to be considered in all respects to be illustrative and not restrictive.

As would be appreciated by a person skilled in the art, the paying of credits is not restricted to coins and may comprise usage of stored-value cards or credit cards.

Furthermore, display of both the main game and the feature game can be on a single screen and is not restricted to being displayed on two separate screens.

Also, although bars have been described as the visual indicators of the accumulator, other visual indicators can be similarly used for the accumulator such as, but not limited, to an hour glass, a pie chart, an X-Y line or a crystal ball.

In addition, the animated computer opponents may be varied according to the theme required of a particular gaming machine. For example, if the theme is ancient China, characters may be modelled after famous historical figures from ancient China.

Further to the above, the animation of the gestures of the computer opponents and the "hitting" or "tipping" of the feature game is not limited to those as described. For example, other opposing animation elements and/or animated representations based on different kinds of games can similarly be implemented.

Furthermore, although the main game has been described as a reel game, other forms of games such as card games can be implemented as the main game. The graphical representation of a reel game implemented as a main game is also not limited to that as described. For example, matching symbols such as fruits or vehicles may also be used in the main game.

CLAIMS

1. A gaming apparatus, comprising:

a main game;

a feature game; and

an accumulator for accumulating one or more parameters based on results of the main game;

wherein an activation of the feature game is triggered by at least one parameter reaching a predetermined value.

2. The gaming apparatus as claimed in claim 1, wherein the parameters comprise a first parameter accumulated based on negative results of the main game, and a second parameter accumulated based on positive results of the main game.

3. The gaming apparatus as claimed in claims 1 or 2, wherein the accumulator is arranged for displaying current values of the parameters.

4. The gaming apparatus as claimed in any one of claims 1 to 3, further comprising a stimulator module for stimulating the player based on the results of the main game.

5. The gaming apparatus as claimed in claim 4, wherein the stimulator module is arranged for visual stimulation, audio stimulation or both.

6. The gaming apparatus as claimed in claim 5, wherein the stimulator module is arranged for displaying one or more animated opponent characters as part of the visual stimulation, and the feature game comprises selection of one of the opponent characters for involvement in the feature game.

7. The gaming apparatus as claimed in any one of claims 1 to 6, further comprising a feature game credit pool for accumulating credit and for awarding prizes resulting from the feature game.

8. The gaming apparatus as claimed in any one of claims 1 to 7, wherein the accumulator clears the accumulated parameters in increments over a pre-determined period of time when main game credits reach zero.

9. The gaming apparatus as claimed in any one of the preceding claims, wherein the gaming apparatus is linked to one or more other gaming apparati, and a credit pool for the feature game is linked between the gaming apparati.

10. A method of triggering a feature game on a gaming apparatus, the method comprising:

providing a main game on the gaming apparatus;

accumulating one or more parameters based on results of the main game on the gaming apparatus; and

triggering activation of the feature game based on at least one parameter reaching a predetermined value.

11. The method as claimed in claim 10, wherein the parameters comprise a first parameter accumulated based on negative results of the main game, and a second parameter accumulated based on positive results of the main game.

12. The method as claimed in claims 10 or 11, further comprising displaying current values of the parameters.

13. The method as claimed in any one of claims 10 to 12, further comprising stimulating the player based on the results of the main game.

14. The method as claimed in claim 13, wherein the stimulating is visual stimulation, audio stimulation or both.

15. The method as claimed in claim 14, further comprising displaying one or more animated opponent characters as part of the visual stimulation, and the feature game comprises selecting one of the opponent characters for involvement in the feature game.

16. The method as claimed in any one of claims 10 to 15, further comprising accumulating credit in a feature game credit pool and awarding prizes resulting from the feature game using the credit pool.

17. The method as claimed in any one of claims 10 to 16, comprising clearing the accumulated parameters in increments over a pre-determined period of time when main game credits reach zero..

18. The method as claimed in any one of claims 10 to 17, further comprising linking the gaming apparatus to one or more other gaming apparati, and linking a credit pool for the feature game between the gaming apparati.

19. A computer readable data storage medium having stored thereon computer code means for instructing a computer processor of a gaming apparatus to

execute a method of triggering a feature game on the gaming apparatus, the method comprising:

providing a main game on the gaming apparatus;

accumulating one or more parameters based on results of the main game on the gaming apparatus; and

triggering activation of the feature game based on at least one parameter reaching a predetermined value.