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<th>Details</th>
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ABSTRACT

A gaming system comprising, a bonus controller arranged to make an award, the award having at least one associated game parameter which specifies at least one game round; and a gaming device in data communication with the bonus controller, the gaming device adapted to receive the game parameters and to provide the award to a player of the gaming device by conducting each at least one game round specified by the at least one game parameter to determine a game outcome without requiring a further bet to be placed by the player.
AUSTRALIA

Patents Act 1990

COMPLETE SPECIFICATION

Standard Patent

Applicant:
Aristocrat Technologies Australia Pty Limited

Invention Title:
A GAMING SYSTEM, A GAMING DEVICE, A BONUS CONTROLLER, AND A METHOD OF GAMING

The following statement is a full description of this invention, including the best method for performing it known to me/us:
A GAMING SYSTEM, A GAMING DEVICE, A BONUS CONTROLLER, AND A METHOD OF GAMING

Related Application

This application is a divisional application of Australian application no. 2008205414, the disclosure of which is incorporated herein by reference.

Field

The present invention relates to a gaming system, a gaming device, a bonus controller, and a method of gaming.

Background

Gaming machines at some venues are linked via a network to a player loyalty system that tracks play by a player and makes an award to the player based on game play, for example based on the number of games played or amount wagered. To implement the player tracking system, a player marketing module (PMM) is connected to the gaming machine which includes a card reader for reading a player tracking card. While a player’s card is inserted in the reader, data is transferred from the gaming machine by the PMM to the player tracking system and reconciled with the player’s account, for example by awarding loyalty points to the player. A display of the PMM displays the points that are awarded to the player. Typically such points can be redeemed later by the player, for example for complimentary food and drink or merchandise, by presenting the player loyalty card.

In some cases the player loyalty system is arranged to award promotional prizes to player’s connected to the
loyalty system. Promotional prizes can be awarded as credits which are paid, via the PMM, into the gaming machine as either promotional credits or cashable credits.

There is a need for an alternative technique for making an award to a player.

**Summary of the Invention**

In a first aspect, the invention provides a gaming system comprising:

- a monitoring module to monitor a plurality of system-based criteria, wherein an award is to be triggered by the gaming system based on the monitoring module determining one of said system-based criteria occurring, and wherein at least one of said system-based criteria that triggers an award includes a predefined sequence of consecutive losing games;

- a bonus controller arranged to make the award in response to said determining by said monitoring module, the award having a plurality of associated game parameters which specify: (1) characteristics of at least one feature game round, and (2) at least one type of credit to be provided to the player;

- a bonus module of a gaming device arranged to receive the plurality of game parameters and to store the game parameters as system bonus data, wherein the bonus module is to further monitor for an appropriate point in game play to initiate the at least one feature game round; and

- an outcome determiner arranged to provide the award to a player of the gaming device by conducting each at least one feature game round specified by the game parameters to determine a game outcome on the basis of said at least one type of credit without requiring a further bet to be placed by the player.
In an embodiment, the plurality of game parameters specify a number of feature game rounds.

In an embodiment, the plurality of game parameters specify a game type.

In an embodiment, the plurality of game parameters specify at least one bet parameter.

In an embodiment, the at least one bet parameter is determined from at least one prior bet made on the gaming device.

In an embodiment, the at least one bet parameter is determined from a bet made on an immediate past game played on the gaming device.

In an embodiment, the at least one bet parameter is determined from bets made on a plurality of games played on the gaming device.

In an embodiment, the gaming device is arranged to advise the bonus controller when all game rounds specified by the game parameters have been completed.

In an embodiment, the gaming device advises the bonus controller of at least one outcome of all game rounds.

In an embodiment, the at least one outcome includes at least one of a cost of the game rounds and an amount of credits won during the game rounds.

In an embodiment, the gaming device comprises a promotional meter and credits spent or awarded during the game rounds are recorded as promotional credits whereby any win amounts awarded as the award do not affect the gaming devices return to player.
In an embodiment, the game outcomes are provided to a further external device.

In an embodiment, the further external device is a jackpot controller and the game outcomes are used to determine a jackpot outcome.

In an embodiment, the further external device is a player loyalty system.

In an embodiment, the gaming system comprises a plurality of gaming devices, each in data communication with the bonus controller.

In a second aspect, the invention provides a method of gaming in a gaming system, comprising:

- monitoring a plurality of system-based criteria with a monitoring module, wherein an award is to be triggered by the gaming system based on the monitoring module determining one of said system-based criteria occurring, and wherein at least one of said system-based criteria that triggers an award includes a predefined sequence of consecutive losing games;

- making an award at a bonus controller in response to said determining by said monitoring module, the award having a plurality of associated game parameters which specify: (1) at least one feature game round, and (2) at least one type of credit to be provided to the player;

- receiving the plurality of game parameters at a bonus module of a gaming device and storing the game parameters as system bonus data;

- monitoring with the bonus module for an appropriate point in game play to initiate the at least one feature game round; and

- providing the award to a player of the gaming device by conducting each at least one feature game round.
specified by the game parameters to determine a game outcome on the basis of said at least one type of credit without requiring a further bet to be placed by the player.

In an embodiment, the plurality of game parameters specify a number of game rounds.

In an embodiment, the plurality of game parameters specify a game type.

In an embodiment, the plurality of game parameters specify at least one bet parameter.

In an embodiment, the method comprises determining the at least one bet parameter from at least one prior bet made on the gaming device.

In an embodiment, the method comprises determining the at least one bet parameter from a bet made on an immediate past game played on the gaming device.

In an embodiment, the method comprises determining the at least one bet parameter from bets made on a plurality of games played on the gaming device.

In an embodiment, the method comprises advising the bonus controller when all game rounds specified by the game parameters have been completed.

In an embodiment, the method comprises advising the bonus controller of at least one outcome of all game rounds.

In an embodiment, the at least one outcome includes at least one of a cost of the game rounds and an amount of credits won during the game rounds.
In an embodiment, the method comprises recording credits spent during the game rounds of the bonus award as promotional credits whereby any win amounts awarded as the award do not affect the gaming devices return to player.

In an embodiment, the method comprises providing the game outcomes to a further external device.

In an embodiment, the method comprises monitoring the gaming device and determines whether to make the award based on game play on the gaming device.

In a third aspect, the invention provides computer program code which when executed implements the above method.

In a fourth aspect the invention provides a computer readable medium comprising the program code.

**Brief Description of Drawings**

Embodiments of the invention will now be described in connection with the accompanying drawings in which:

Figure 1 is a block diagram of a gaming system.

Figure 2 is a perspective view of a gaming device in the form of a stand alone gaming machine;

Figure 3 is a block diagram of the functional components of a gaming machine;

Figure 4 is a schematic diagram of the functional components of a memory;

Figure 5 is a block diagram of a bonus controller; and

Figure 6 is a block diagram of a gaming device of the embodiment.
Detailed Description

Referring to the drawings, there is shown a gaming system arranged to implement a bonus controller adapted to make an award to any one or more of a plurality of gaming devices to which it is connected. The award is implemented by the gaming device carrying out one or more game rounds specified by parameters sent to the gaming device.

General System Configuration

In the gaming system configuration 100, a bonus controller 110 is in data communication with a plurality of gaming devices 120 over a network 130. A person skilled in the art will also appreciate that other configurations may be viable. For example, the gaming devices could be connected in a peer-to-peer arrangement with the bonus controller executed by one of the gaming devices. Alternatively a dedicated bonus controller may be provided for each gaming device.

Gaming Devices

Herein, the term gaming device is used to refer to any device used by a player to a play a game and specifically includes stand alone gaming machines and interactive video terminals which implement games in a client/server architecture.

A gaming device in the form of a stand alone gaming machine 10 is illustrated in Figure 2. The gaming machine 10 includes a console 12 having a display 14 on which is displayed representations of a game 16 that can be played by a player. A mid-trim 20 of the gaming machine 10 houses a bank of buttons 22 for enabling a player to...
interact with the gaming machine, in particular during
game play. The mid-trim 20 also houses a credit input
mechanism 24 which in this example includes a coin input
chute 24A and a bill collector 24B. Other credit input
mechanisms may also be employed, for example, a card
reader for reading a smart card, debit card or credit
card. A player marketing module comprising a reading
device may also be provided for the purpose of reading a
player tracking device, for example as part of a loyalty
program. The player tracking device may be in the form of
a card, flash drive or any other portable storage medium
capable of being read by the reading device.

A top box 26 may carry artwork 28, including for example
pay tables and details of bonus awards and other
information or images relating to the game. Further
artwork and/or information may be provided on a front
panel 29 of the console 12. A coin tray 30 is mounted
beneath the front panel 29 for dispensing cash payouts
from the gaming machine 10.

The display 14 shown in Figure 2 is in the form of a video
display unit, particularly a cathode ray tube screen
device. Alternatively, the display 14 may be a liquid
crystal display, plasma screen, any other suitable video
display unit, or the visible portion of an
electromechanical device. The top box 26 may also include
a display, for example a video display unit, which may be
of the same type as the display 14, or of a different
type.

Figure 3 shows a block diagram of operative components of
a typical gaming machine which may be the same as or
different to the gaming machine of Figure 2.

The gaming machine 300 includes a game controller 301
having a processor 302. Instructions and data to control
operation of the processor 302 are stored in a memory 303, which is in data communication with the processor 302. Typically, the gaming machine 300 will include both volatile and non-volatile memory and more than one of each type of memory, with such memories being collectively represented by the memory 303.

The gaming machine has hardware meters 304 for purposes including ensuring regulatory compliance and monitoring player credit, an input/output (I/O) interface 305 for communicating with peripheral devices of the gaming machine 300. The input/output interface 305 and/or the peripheral devices may be intelligent devices with their own memory for storing associated instructions and data for use with the input/output interface or the peripheral devices. A random number generator module 313 generates random numbers for use by the processor 302. Persons skilled in the art will appreciate that the reference to random numbers includes pseudo-random numbers.

In the example shown in Figure 3, a player interface 320 includes peripheral devices that communicate with the game controller 301 including one or more displays 306, a touch screen and/or buttons 307, a card and/or ticket reader 308, a printer 309, a bill acceptor and/or coin input mechanism 310 and a coin output mechanism 311. Additional hardware may be included as part of the gaming machine 300, or hardware may be omitted as required for the specific implementation.

In addition, the gaming machine 300 may include a communications interface, for example a network card 312. The network card may, for example, send status information, accounting information or other information to a central controller, server or database and receive data or commands from the central controller, server or database.
Figure 4 shows a block diagram of the main components of an exemplary memory 303. The memory 303 includes RAM 303A, EPROM 303B and a mass storage device 303C. The RAM 303A typically temporarily holds program files for execution by the processor 302 and related data. The EPROM 303B may be a boot ROM device and/or may contain some system or game related code. The mass storage device 303C is typically used to store game programs, the integrity of which may be verified and/or authenticated by the processor 302 using protected code from the EPROM 303B or elsewhere.

It is also possible for the operative components of the gaming machine 300 to be distributed, for example input/output devices 306, 307, 308, 309, 310, 311 to be provided remotely from the game controller 301.

A gaming device as indicated above may also take the form of a client/server architecture where a portion of the game is executed on the client and a portion of the game is executed on the server. In such embodiments, the client typically takes the form of an interactive video terminal which has a similar outward appearance to the gaming machine described above. A person skilled in the art will appreciate that the type of gaming device that is employed is not important to the present invention.

The bonus controller 500 is connected to gaming devices by a device interface 540 and contains a monitoring module 510 for monitoring game play on one or more game devices to determine based on trigger data 560 when to provide an award to a gaming machine. The criteria for the system triggering the bonus feature can be based on a number of criteria including a random trigger, time-based, activity based, player promotion outcome, progressive jackpot outcome or a combination thereof. In one advantageous
embodiment, the bonus controller 500 is arranged to make an award to the player when the player has a sequence of consecutive losing games.

When the monitoring module 510 determines that a trigger condition is being met, it advises award module 520 which consults award data 530 to determine what award should be made to the player. The award module has a parameter module 525 for communicating parameters to the gaming device via device interface 540 in order to implement the award.

In an embodiment, the bonus controller 500 is arranged to trigger a special feature game within the game offered on the gaming device. Accordingly, sending the game parameters to the gaming device indicates that the bonus feature should be started at an appropriate juncture. The game parameters specify the characteristics of at least one game round and typically also specifies the number of game rounds to be provided to the player. The parameters may also specify other factors, for example, the type of credits to be provided to the player such as promotional credits. Accordingly, when the bonus trigger feature is triggered in a free-spin embodiment, the gaming machine carries out the free game. To this end, as shown in the functional block diagram of Figure 6, a gaming device having a player interface 50 having a credit mechanism 52, a display 54 and an instruction input mechanism 56 in data communication with the game controller 60. The game controller has a processor 62 that implements a series of modules based on data stored in memory 64. A person skilled in the art will appreciate that other arrangements are possible.

In this embodiment the processor implements a bonus interface module 624 arranged to receive game parameters from the device interface 540 of the bonus controller 500.
Once the game parameters are received, the bonus module stores the game parameters as system bonus data and monitors for an appropriate point in game play to initiate the feature. For example, the conclusion of a game. The bonus module then implements a series of free spins specified by the game parameters, for example 10 free spins. It does this by controlling the symbol selectors to select using random number generator symbols from symbol data. The game outcome is determined for each game round by outcome determiner based on game/prize data. The current status of the bonus award is stored in the system bonus data - eg. to keep track of the number of remaining game rounds that form part of the award defined by the game parameters.

The game outcomes are displayed on the display under control of the display controller. The cost of providing the bonus game is stored as cost data, for example, to keep track of the number of promotional credits used by the gaming machine and any associated awards made to the player.

A person skilled in the art will appreciate that a number of variations may be made to the invention. For example, the gaming device may be connected to a progressive jackpot such as a hyperlink system even though the electronic gaming machine is not a hyperlink gaming device. The triggered bonus feature could be a hyperlink reel spin feature or a pick a box feature. Thus, during such a feature the player will interact to stop hyperlink reels or pick boxes.

In another example, the bonus feature outcome generates an event to external progressive jackpot system. The feature outcome determines the type of the event generated for example the jackpot level 1. The player gets paid based on the win.

In a further embodiment, the outcome may be reported to a...
promotional system and the promotional system may
determine an award based on the outcome of the feature.
That is the outcome may determine the number of
promotional points to add to our player loyalty system.

A person skilled in the art will appreciate that there are
number of benefits in the invention. For example the
bonus feature does not affect the gaming devices return to
player percentage. Further it does not require the
payment of promotional wins back to the gaming device by
the system.

An advantage of the present system is that awards can be
made to players who are not participating in the loyalty
system or who do not have their tracking card insert. A
further advantage is that the award, particularly where it
takes the form of a special bonus feature, is more closely
tied into the game play occurring on the gaming machine so
that it is possible to apply tighter controls on how the
player experiences the award and make the award more
interesting.

Persons skilled in the art will appreciate that the bonus
module 625 can generate a report to the bonus controller
500 on the cost of the feature.

Persons skilled in the art will appreciate that the game
parameters can vary from embodiment to embodiment. For
example the gaming parameters can determine the type of
bonus feature, for example, free spins, a number of free
spins, features such as repeat game play, max bet, max
lines, max bet per line and or the duration to wait for
the next game. Persons skilled in the art will also
appreciate that parameters can be derived from the past
play on the gaming device. For example, the bet type and
bet amount for the plurality of gaming rounds can be
determined by the monitoring module 510 based on the
average bet amount and number of win lines from the player’s losing streak for which the bonus controller has triggered the awards. In a similar example, the parameters could be based on the last play of the gaming machine. In this example, the bonus controller does not need to know the nature of the last bet - e.g. the bonus controller can control the gaming machine to implement a plurality of games based on the last bet by instructing it to implement the last bet in respect of the free games or the gaming device can be configured such that when it receives game parameters from the bonus controller it always implements the last bet.

Persons skilled in the art, will appreciate that in other embodiments, the player may place a bet by selecting a number of reels to play and an amount to bet per reel. Such games are marketed under the trade name “Reel Power” by Aristocrat Leisure Industries Pty Ltd. The selection of the reel means that each symbol of the reel can be substituted for a symbol at one or more designated display positions. In other words, all symbol positions of a selected reel can be used to form symbol combinations with designated, displayed symbol positions of other reels. Accordingly, the bonus controller may specify a number of reels to be played by means of the game parameters, that is the game parameters can include a bet parameter specifying the nature of the bet.

Persons skilled in the art will also appreciate that the method of the embodiment could be embodied in program code. The program code could be supplied in a number of ways, for example on a computer readable medium, such as a disc or a memory (for example, that could replace part of memory 103) or as a data signal (for example, by downloading it from a server).

It will be understood to persons skilled in the art of the
invention that many modifications may be made without
departing from the spirit and scope of the invention, in
particular it will be apparent that certain features of
embodiments of the invention can be employed to form
further embodiments.

It is to be understood that, if any prior art is referred
to herein, such reference does not constitute an admission
that the prior art forms a part of the common general
knowledge in the art in any country.

In the claims which follow and in the preceding
description of the invention, except where the context
requires otherwise due to express language or necessary
implication, the word "comprise" or variations such as
"comprises" or "comprising" is used in an inclusive sense,
i.e. to specify the presence of the stated features but
not to preclude the presence or addition of further
features in various embodiments of the invention.
THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS:

1. A gaming system comprising:
   a monitoring module to monitor a plurality of system-based criteria, wherein an award is to be triggered by the gaming system based on the monitoring module determining one of said system-based criteria occurring, and wherein at least one of said system-based criteria that triggers an award includes a predefined sequence of consecutive losing games;
   a bonus controller arranged to make the award in response to said determining by said monitoring module, the award having a plurality of associated game parameters which specify: (1) characteristics of at least one feature game round, and (2) at least one type of credit to be provided to the player;
   a bonus module of a gaming device arranged to receive the plurality of game parameters and to store the game parameters as system bonus data, wherein the bonus module is to further monitor for an appropriate point in game play to initiate the at least one feature game round; and
   an outcome determiner arranged to provide the award to a player of the gaming device by conducting each at least one feature game round specified by the game parameters to determine a game outcome on the basis of said at least one type of credit without requiring a further bet to be placed by the player.

2. A gaming system as claimed in claim 1, wherein the plurality of game parameters specify a number of feature game rounds.

3. A gaming system as claimed in claim 1 or claim 2, wherein the plurality of game parameters specify a game type.
4. A gaming system as claimed in any one of claims 1 to 3, wherein the plurality of game parameters specify at least one bet parameter.

5. A gaming system as claimed in claim 4, wherein the at least one bet parameter is determined from at least one prior bet made on the gaming device.

6. A gaming system as claimed in claim 5, wherein the at least one bet parameter is determined from a bet made on an immediate past game played on the gaming device.

7. A gaming system as claimed in claim 5, wherein the at least one bet parameter is determined from bets made on a plurality of games played on the gaming device.

8. A gaming system as claimed in any one of claims 1 to 7, wherein the gaming device is arranged to advise the bonus controller when all game rounds specified by the game parameters have been completed.

9. A gaming system as claimed in claim 8, wherein the gaming device advises the bonus controller of at least one outcome of all game rounds.

10. A gaming system as claimed in claim 8, wherein the at least one outcome includes at least one of a cost of the game rounds and an amount of credits won during the game rounds.

11. A gaming system as claimed in any one of claims 1 to 10, wherein the gaming device comprises a promotional meter and credits spent or awarded during the game rounds are recorded as promotional credits whereby any win amounts awarded as the award do not affect the gaming devices return to player.
12. A gaming system as claimed in any one of claims 1 to 11, wherein the game outcomes are provided to a further external device.

13. A gaming system as claimed in claim 12, wherein the further external device is a jackpot controller and the game outcomes are used to determine a jackpot outcome.

14. A gaming system as claimed in claim 12, wherein the further external device is a player loyalty system.

15. A gaming system as claimed in any one of claims 1 to 14, comprising a plurality of gaming devices, each in data communication with the bonus controller.

16. A method of gaming in a gaming system, comprising:
   monitoring a plurality of system-based criteria with a monitoring module, wherein an award is to be triggered by the gaming system based on the monitoring module determining one of said system-based criteria occurring, and wherein at least one of said system-based criteria that triggers an award includes a predefined sequence of consecutive losing games;
   making an award at a bonus controller in response to said determining by said monitoring module, the award having a plurality of associated game parameters which specify: (1) at least one feature game round, and (2) at least one type of credit to be provided to the player;
   receiving the plurality of game parameters at a bonus module of a gaming device and storing the game parameters as system bonus data;
   monitoring with the bonus module for an appropriate point in game play to initiate the at least one feature game round; and
   providing the award to a player of the gaming system.
device by conducting each at least one feature game round specified by the game parameters to determine a game outcome on the basis of said at least one type of credit without requiring a further bet to be placed by the player.

17. A method as claimed in claim 16, wherein the plurality of game parameters specify a number of game rounds.

18. A method as claimed in claim 16 or claim 17, wherein the plurality of game parameters specify a game type.

19. A method as claimed in any one of claims 16 to 18, wherein the plurality of game parameters specify at least one bet parameter.

20. A method as claimed in claim 19, comprising determining the at least one bet parameter from at least one prior bet made on the gaming device.

21. A method as claimed in claim 20 comprising determining the at least one bet parameter from a bet made on an immediate past game played on the gaming device.

22. A method as claimed in claim 20, comprising determining the at least one bet parameter from bets made on a plurality of games played on the gaming device.

23. A method as claimed in any one of claims 16 to 22, comprising advising the bonus controller when all game rounds specified by the game parameters have been completed.

24. A method as claimed in claim 23, comprising advising the bonus controller of at least one outcome of
all game rounds.

25. A method as claimed in claim 24, wherein the at least one outcome includes at least one of a cost of the game rounds and an amount of credits won during the game rounds.

26. A method as claimed in any one of claims 16 to 25, recording credits spent or awarded during the game rounds of the bonus award as promotional credits whereby any win amounts awarded as the award do not affect the gaming devices return to player.

27. A method as claimed in any one of claims 16 to 26, comprising providing the game outcomes to a further external device.

28. Computer program code which when executed implements the method of any one of claims 16 to 27.

29. A computer readable medium comprising the program code of claim 28.
Figure 3

Figure 4
Figure 5