

Play Points Gaming Machine

FIELD OF INVENTION

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The invention relates broadly to a gaming machine, to a method of implementing an entertainment game on a gaming machine and to a computer readable data storage medium having stored thereon computer code means for instructing a computer processor of a gaming machine to execute a method of
10 implementing an entertainment game.

BACKGROUND

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In the context of payout rates, gaming machines with high return to player (RTP) percentages typically attract more players. However, due to various factors that may require limiting payment from gaming establishments such as high gaming taxes, contribution to charity causes, state jurisdictions on payout rates or other lawful reasons, gaming machines in certain countries and regions are programmed to use game content
20 with lower RTP percentages or programmed to use games that pay out non-monetary gifts and vouchers instead of actual monetary payouts.

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By using the above programming, a problem arises that the entertainment level of the games are lowered and this typically results in lower player satisfaction in the games. As a result of lower player satisfaction leading to fewer turnovers, overall revenues collected from the gaming machines are lowered. Therefore, there exists an issue of deploying high RTP game contents on the gaming machines to attract players on the one hand, and on the other hand, another issue of fulfilling the factors mentioned above such as high taxation required by different jurisdictions or contribution to intended
30 charity causes during payouts.

Hence, there exists a need for a gaming machine that seeks to address at least one of the above issues.

SUMMARY

5 In accordance with a first aspect of the present invention, there is provided a gaming machine comprising one or more Play Point (PP) databases for storing respective winning credit balances awarded by an entertainment game executed on the gaming machine; a display for displaying the winning credit balances; a processor for maintaining the one or more PP databases based on winning credits
10 awarded by the entertainment game; and a payout module; wherein the processor applies respective reduction rates to the winning credit balances displayed by the display and stored in the respective PP databases when instructing a payout function to be executed by the payout module.

15 The one or more PP databases may have different associated reduction rates.

 The winning credits may be stored in the one or more PP databases based on one or more categories.

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 The payout function may comprise payout of the winning credit balances and payout of a current game credit balance.

 The payout may comprise cash, electronic payment or awarding of non-cash
25 prizes.

 For the awarding of non-cash prizes, the payout may comprise a refund of the game credit balance and converting the winning credit balances to non-cash prizes.

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 The processor, based on a user request, may instruct the payout module to execute a transfer function, the transfer function may comprise transferring the winning credit balances to a winning credit account of the player without applying the reduction rates, and transferring a game credit balance to a game credit account

of the player, or the transfer function may comprise converting the winning credit balances into game credits with applying the reduction rates, and transferring a resulting game credit balance to the game credit account of the player.

5 The winning credit account, the game credit account of the player, or both, may be maintained in a player identification card, in a centralized system coupled to the gaming machine, or both.

10 The processor, in a first operation state, may apply the respective reduction rates to the winning credit balances displayed by the display and stored in the respective PP databases when instructing a player requested payout function to be executed by the payout module.

15 The processor, in a second operation state, may apply the respective reduction rates to at least one of the winning credit balances displayed by the display and stored in the respective PP databases when instructing an automatic payout function to be executed by the payout module after every turn of the entertainment game, the automatic payout function may comprise converting said at least one winning credit balance into game credits.

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The processor may deduct a wagered amount from the PP databases and from a game credit database based on a pre-defined algorithm.

25 The pre-defined algorithm may comprise deducting the wagered amount first from the PP databases and then deducting any remainder of the wagered amount from the game credit database.

30 The pre-defined algorithm may comprise deducting the wagered amount from the PP databases based on pre-defined order of deducting from the PP databases.

The processor may deduct a wagered amount from the PP databases and from a game credit database based on a player selection.

The player selection may further comprise a player selected order of the PP databases.

In the deductions from the PP databases, no reduction rate may be applied.

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In the deductions from the PP databases, one or more reduction rates may be applied.

10 A virtual return-to-player (RTP) of the gaming machine as audited with reference to the displayed winning credit balances may be higher than an actual RTP of the gaming machine as audited with reference to the payout of the gaming machine.

15 In accordance with a second aspect of the present invention, there is provided a method of implementing an entertainment game on a gaming machine, the method comprising storing respective winning credit balances awarded by the entertainment game executed on the gaming machine in one or more Play Point (PP) databases; displaying the winning credit balances; maintaining the one or more PP databases based on winning credits awarded by the entertainment game; and
20 applying respective reduction rates to the winning credit balances displayed and stored in the respective PP databases when instructing a payout function to be executed by a payout module of the gaming machine.

25 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 machine to execute a method of implementing an entertainment game, the method comprising storing respective winning credit balances awarded by the entertainment game executed on the gaming machine in one or more Play Point (PP) databases; displaying the winning
30 credit balances; maintaining the one or more PP databases based on winning credits awarded by the entertainment game; and applying respective reduction rates to the winning credit balances displayed and stored in the respective PP databases when instructing a payout function to be executed by a payout module of the gaming machine.

In accordance with a fourth aspect of the present invention, there is provided a gaming machine comprising an entertainment game module; one or more Play Point (PP) databases for storing respective winning credit balances awarded by the entertainment game module; a display for displaying the winning credit balances; wherein the entertainment game module is programmed to a selected game return-to-player (RTP) value taking into consideration one or more reduction rates applicable to the winning credit balances, whereby a virtual machine RTP of the gaming machine as audited with reference to the displayed winning credit balances is higher than an actual machine RTP of the gaming machine as audited with reference to an actual value of a payout of the gaming machine after application of the reduction rates.

In accordance with a fifth aspect of the present invention, there is provided a method of implementing an entertainment game on a gaming machine, the method comprising storing respective winning credit balances awarded by an entertainment game module in one or more Play Point (PP) databases; displaying the winning credit balances; programming the entertainment game module to a selected game return-to-player (RTP) value taking into consideration one or more reduction rates applicable to the winning credit balances, whereby a virtual machine RTP of the gaming machine as audited with reference to the displayed winning credit balances is higher than an actual machine RTP of the gaming machine as audited with reference to an actual value of a payout of the gaming machine after application of the reduction rates.

In accordance with a sixth 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 machine to execute a method of implementing an entertainment game, the method comprising storing respective winning credit balances awarded by an entertainment game module in one or more Play Point (PP) databases; displaying the winning credit balances; programming the entertainment game module to a selected game return-to-player (RTP) value taking into consideration one or more reduction rates applicable to the winning credit balances, whereby a virtual machine RTP of the gaming machine as audited with

reference to the displayed winning credit balances is higher than an actual machine RTP of the gaming machine as audited with reference to an actual value of a payout of the gaming machine after application of the reduction rates.

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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:

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

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Figure 2 is a screenshot showing a reel game in the example implementation.

Figure 3 is a schematic drawing of a computer controlled gaming machine for implementing the example implementation.

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Figure 4 is a schematic drawing of a gaming machine according to an example implementation.

Figure 5 is a flowchart illustrating a method of implementing an entertainment game on a gaming machine.

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Figure 6 is a schematic drawing of a gaming machine according to another example implementation.

Figure 7 is a flowchart illustrating a method of implementing an entertainment game on a gaming machine.

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DETAILED DESCRIPTION

In an example implementation, an entertainment game is implemented as a typical reel game on a gaming machine. In addition, a Play Points (PP) system is implemented in the gaming machine using a processor. Implementation of the PP system comprises using one or more "PP bet" databases and one or more "PP game win" databases in addition to typical "bet credit" and "game win" databases stored in the gaming machine. For the description below, the one or more "PP bet" databases are termed as PP Bet meters while the one or more "PP game win" databases are termed as PP game win meters.

The processor, implementing the PP system, processes and tracks winning credits awarded to a player by the entertainment game. Depending on the level of wins determined by the amount of winning credits, the winning credits are recorded by the processor into respective PP game win meters. These winning credits are reduced according to their respective categories if the player requests payout. The reduction of the winning credits may be carried out using respective reduction rates such as in the form of tax rates or rates for reducing winning credits for charity contribution purposes etc. For example, winning credits awarded by game wins of less than or equal to 5000 credits belong to category A. Winning credits awarded by game wins of 5001 to less than or equal to 10000 credits belong to category B while winning credits awarded by game wins of more than 10000 credits belong to category C. With regard to reduction, for example, winning credits in category A are reduced based on a reduction rate of 10%, winning credits in category B are reduced based on a reduction rate of 15% and winning credits in category C are reduced based on a reduction rate of 20% during payout. In this description, a PP set refers to a related PP Bet meter, a related PP game win meter and a corresponding predetermined reduction rate. As an alternative to cash payouts, the player may be rewarded with gifts and vouchers of equivalent value to the remaining winning credits after the winning credits have been reduced according to predetermined reduction rates.

On the other hand, if the player does not request payout, the winning credits may be used as wager credits to continue playing the entertainment game. The amount of wager credits selected from the PP game win meters are reflected in the respective PP Bet meters. For such events, the processor implements a pre-defined algorithm in the form of a deduction rule to define which of the PP game win meters to process for

continuous wagering by the player. Alternatively, the player may choose the order or sequence of PP game win meters to provide the wager credits.

In one implementation, when using the winning credits for wagering, the bet credits are not subject to reduction rates. Alternatively, in another implementation, the winning credits used for wagering may be reduced at the wagering stage based on another set of reduction rates. This set of reduction rates may be the same or different from the reduction rates used to reduce the winning credits during payout.

Thus, advantageously, the entertainment game can have a virtual high RTP percentage which may attract players to the gaming machine since the actual RTP percentage is apparent only when the winning credits are reduced according to predetermined reduction rates e.g. at the time of payout.

The PP system may be implemented on land based gaming machines and online Internet games and may provide a high virtual RTP percentage for the land based gaming machines and online Internet games. Land based gaming machines include, but are not limited to, all forms of slot machines such as poker machines, mechanical reel machines, video reel machines, arcade gaming machines etc, and all forms of multi player electronic tables such as electronic card tables, electronic roulette tables, electronic dice tables etc, and all forms of player against player multi player electronic tables such as Texas Hold'em poker tables etc. Online Internet games include, but are not limited to, all forms of online casino games, online poker room games, online massively multiplayer games etc. The gaming machines may also be implemented via interactive TV or other service networks. Virtual gaming machines may be implemented on desk top devices or portable devices.

For description purposes, the example implementation is described in detail below based on a gaming machine implementing a reel game.

Figure 1 is a schematic perspective view of a gaming machine 100. The gaming machine 100 comprises a liquid crystal display (LCD) screen 102, a keyset 104 of push buttons, a cash input mechanism in the form of a stored-value cash card slot 106, a payout button 108, a prize pay-out tray 110 and a top box 112. The

LCD screen 102 displays the reel game. The LCD screen 102 is incorporated with touch screen technology to allow a player to play the games contained in the gaming machine 100. The keyset 104 of push buttons allows the player to operate or initiate the gaming machine 100. The stored-value cash card slot 106 receives a
5 stored-value cash card from the player for converting cash into game credits to play the games in the gaming machine 100. The payout button 108 allows the player to request for payout from the gaming machine 100 e.g. when the player stops playing the gaming machine. When the payout button 108 is activated, the player receives cash paid out by the reel game through the prize pay-out tray 110. The top box 112
10 is located on the top of the gaming machine 100 and comprises an artwork panel 114. The artwork panel 114 displays winning combinations for winning the reel game. The amount of winning game credits awarded when the player wins each turn of the reel game is governed based on an odds table stored or programmed in the gaming machine 100.

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It will be appreciated by a person skilled in the art that although a stored-value cash card is described above for converting cash into game credits, the gaming machine may be configured to comprise a coin acceptor or a bill validator for accepting cash for converting into game credits. In addition, the gaming machine
20 may be configured to accept electronic transfers of game credits by using a ticket in a validator or a card-reader to read a player identification card implemented as an electronic smart card, a magnetic card or in the form of a player tracking card. Furthermore, the gaming machine may be configured to accept electronic cash payment for converting into game credits by accessing a bank payment gateway
25 authorised by the player or by accessing an online player account of the player maintained in a centralised system coupled to the gaming machine.

The above cash-converted game credits are termed as Cash Credits (CCs) in the example implementation. The CCs are used for game plays and any unused
30 CCs are fully refunded, ie. without reduction, when the player requests for payout by activating the payout button 108. The CCs are not reduced during payout since the CCs are originally unused cash belonging to the player.

In this description, the winning game credits awarded by the gaming machine 100 are termed as Play Points (PPs). The PPs are stored separately from the CCs balance and are not transferred to the CCs balance during game play.

5 Figure 2 is a screenshot 202 of the LCD screen 102 showing the reel game 204 in the example implementation. The reel game 204 comprises a plurality of rotatable reels 206 containing graphical symbols e.g. 208. The reel game 204 involves a matching of a pre-determined sequence of the graphical symbols e.g. 208 appearing on the reels 206. Once the player obtains an occurrence of a combination
10 of graphical symbols e.g. 208 and the combination matches one of those of the graded winnings scale as displayed on the artwork panel 114 (Figure 1), the gaming machine 100 (Figure 1) awards a pre-determined amount of PPs to the player according to the winnings scale. A touch screen SPIN button 210 is displayed and the player can play each turn of the reel game by depressing the SPIN button 210.

15 A CC amount 212, a first PP amount 214 and a second PP amount 216 are displayed. The CC amount 212 represents CCs converted from cash by the player using the stored-value cash card while the first PP amount 214 and the second PP amount 216 represent PPs stored in one or more PP game win databases
20 implemented in the gaming machine 100 (Figure 1). The number of PP game win databases may be varied according to the desired configuration of the gaming machine 100 (Figure 1).

25 Before each turn of the reel game 204, by a default configuration, a wagered amount is deducted from PPs balances in the first PP amount 214 and the second PP amount 216. A pre-defined algorithm in the form of a deduction rule is implemented in the gaming machine 100 (Figure 1) to select one of the first PP amount 214 and the second PP amount 216 to be deducted first since there are more than one PP game win databases. In the default configuration, when both the
30 first PP amount 214 and the second PP amount 216 are zero, the remainder of the wagered amount is deducted from the CC amount 212.

As an alternative to the default configuration, the player may select the order of the CC amount 212, the first PP amount 214 and the second PP amount 216 for

deducting the wagered amount. Touch screen Left/Right buttons 218, 220 respectively and a wager credit select button 222 are displayed on the LCD screen 102. The player may highlight the CC amount 212, the first PP amount 214 and the second PP amount 216 by depressing the Left/Right buttons 218, 220 respectively and may select the order of deduction by depressing the wager credit select button 222. For example, the player may select the CC amount 212 to be deducted first before deduction of the first PP amount 214 or the second PP amount 216. Different sets of PPs and the CCs may be used in combination for wagering if the current selected amount 212, 214 or 216 is not sufficient to deduct the wagered amount.

A touch screen reel wager button 224 is displayed on the LCD screen 102. Depressing the reel wager button 224 allows the player to adjust an amount of wagered credits on the reel game before each turn of the reel game. Touch screen Increase/Decrease buttons 226, 228 respectively and a reel wager amount display 230 are displayed on the LCD screen 102. The player can adjust the wagered amount for the reel game in pre-determined steps by depressing the Increase/Decrease buttons 226, 228 respectively. For example, for each time the Increase/Decrease buttons 226, 228 are depressed, the wagered amount in the reel wager amount display 230 is adjusted by fifty points. The wagered amount is displayed in the reel wager amount display 230 and the corresponding selected database of CC amount 212, first PP amount 214 and/or second PP amount 216 is decremented according to the wagered amount.

After each turn of the reel game is played by the player depressing the SPIN button 210, if there are any PPs awarded by the reel game, the first PP amount 214 and/or second PP amount 216 is graphically adjusted based on the awarded PPs.

In the event when the player decides to stop playing the gaming machine and depresses the payout button 108 (Figure 1), in a payout function, the remaining PPs and CCs are paid out from the gaming machine 100 (Figure 1) e.g. in cash/coins through the pay-out tray 110. In the example implementation, a reduction process is carried out on the PPs using predetermined reduction rates corresponding to the PP game win databases. The reduction process carried out on the PPs may enable a high RTP game content to be used on the gaming machine to attract the player and

provide a virtual high RTP to the player during game play. During payout, the reduction process may enable the gaming machine to maintain an actual lower RTP percentage.

5 In the above example implementation, the PPs used for wagering from the first PP amount 214 and the second PP amount 216 are not reduced at the wagering stage. Alternatively, in another example implementation, the PPs used for wagering may be reduced based on another set of reduction rates at the wagering stage. This set of reduction rates may be the same or different from the reduction
10 rates used during payout.

 In the example implementation, for cash payouts, there are "help" signs provided on the gaming machine to display or explain the predetermined reduction rates for reductions on the PPs carried out during the cash payouts. In addition, during the cash
15 payouts, printed receipts may be issued by the gaming machine to provide a "breakdown" of the respective predetermined reduction rates used for reducing respective categories of PPs. The above may alert the player to the difference between the displayed PPs on the gaming machine and the actual payout.

20 It will be appreciated that although the payout function is described in relation to cash paid through the pay-out tray 110, other various payout may also be used such as ticket out, hand pay, electronic transfers to the player account if the gaming machine is configured to support a player identification card implemented as an electronic smart card, a magnetic card or in the form of a player tracking card, payout
25 through a bank payment gateway or electronic transfer to an online player account of the player maintained in a centralised system coupled to the gaming machine.

 For cash payout, such as using coin out, ticket out, hand pay or the bank payment gateway, the remaining CCs are refunded in full while a predefined percentage
30 of the PPs are paid out. The predefined percentage is determined based on respective reduction rates of the PPs.

For electronic transfers, such as transferring to a central player account accessed on a player tracking card or to the online player account, two payout methods may be used.

5 A first electronic transfer payout method is to convert PPs to their cash values based on their respective predetermined reduction rates. The converted cash values are added to the CCs and the total cash balance is input to the player account. Thus, when the player plays at a new gaming machine using electronic transfer via e.g. the player tracking card, the total cash balance may be used to convert to CCs. If the
10 player decides to cash out, the CCs balance is paid out in full.

A second electronic transfer payout method is to retain the PPs balance and the CCs balance and transfer the balances to the player account as separate "purses". This transfer function may be executed based on a user request. More
15 than one PPs purses may be created if there is more than one set of PPs. Thus, when the player plays at a new gaming machine using electronic transfer via e.g. the player tracking card, the player may start game play with the retained PPs balance and CCs balance. If the player decides to cash out at a later stage, the CCs balance is paid out in full and the PPs are converted to their cash values based on their
20 respective predetermined reduction rates.

As an alternative to monetary payouts, the player may be rewarded with non-cash prizes in the form of gifts and/or vouchers of equivalent cash value after the reduction processes on the PPs have been carried out.

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For gift/voucher payout, the unused CCs are refunded in cash or by electronic transfer payout. In gift/voucher payout implementations, the gift/voucher points are issued from the PP balances. The reduction of points (due to the reduction rates such as tax) on the PP balances displayed may be executed by a payout module of the
30 gaming machine. Players may go to a gifts redemption counter for exchange according to the points issued.

Alternatively, the payout module may issue the entire PP balances as the gift/voucher payout. For such implementations, the actual value of the gift/voucher is

lower than the points reflected/issued on the gift/voucher. The reduction processing, such as tax reduction, may occur external to the machine, for example at the gifts redemption counter. In such implementations, an entertainment game module of the gaming machine is programmed to a selected game return-to-player (RTP) value
 5 taking into consideration one or more reduction rates applicable to the winning credit balances, whereby a virtual machine RTP of the gaming machine as audited with reference to the displayed winning credit balances is higher than an actual machine RTP of the gaming machine as audited with reference to an actual value of a payout of the gaming machine after application of the reduction rates. In other words, the
 10 gaming machine is programmed to "anticipate" the external reduction of the payout amount.

The example implementation may also be configured to convert PPs to CCs based on their respective predetermined reduction rates immediately after game
 15 wins. This configuration may be used during e.g. peak operational hours when there are more players than available gaming machines. The players are thus unable to wager using their PPs and this may result in the gaming machines functioning at a slightly lower RTP.

20 The example implementation may additionally be configured to allow some categories of PPs to be converted to CCs based on their respective predetermined reduction rates immediately after game wins while other categories of PPs may be kept for use for continuous wagering until the player cashes out from the gaming machine. When the player cashes out, the remaining PPs are then converted to CCs according to
 25 their respective predetermined reduction rates.

In the example implementation as discussed, for each PP set, there is one related PP Bet database, one related PP Win database and one corresponding Reduction Rate. PP Bet refers to using of credits in the PP Win database for game
 30 wagering. For gaming machines with one set of PPs, the Machine profit and Machine RTP are audited as follows:

$$\text{Profit} = \text{CC Bet} + (\text{PP Bet} - \text{PP Win}) * (1 - \text{Reduction Rate}) \quad \dots(1)$$

$$\text{RTP \%} = [\text{PP Win}^*(1 - \text{Reduction Rate})] / [\text{CC Bet} + \text{PP Bet}^*(1 - \text{Reduction Rate})] \dots(2)$$

For gaming machines with n sets of PPs, the Machine profit and Machine RTP are
5 audited as follows:

$$\begin{aligned} \text{Profit} = & \text{CC Bet} + (\text{PP Bet}^1 - \text{PP Win}^1)(1 - \text{Reduction Rate}^1) \\ & + (\text{PP Bet}^2 - \text{PP Win}^2)(1 - \text{Reduction Rate}^2) + \dots \\ & + (\text{PP Bet}^n - \text{PP Win}^n)(1 - \text{Reduction Rate}^n) \dots(3) \end{aligned}$$

$$\begin{aligned} 10 \quad \text{RTP \%} = & [\text{PP Win}^1(1 - \text{Reduction Rate}^1) + \text{PP Win}^2(1 - \text{Reduction Rate}^2) \\ & + \dots + \text{PP Win}^n(1 - \text{Reduction Rate}^n)] / \\ & [\text{CC Bet} + \text{PP Bet}^1(1 - \text{Reduction Rate}^1) + \text{PP Bet}^2(1 - \text{Reduction Rate}^2) \\ & + \dots + \text{PP Bet}^n(1 - \text{Reduction Rate}^n)] \dots(4) \end{aligned}$$

15 A differentiation may be made between Game RTP and Machine RTP. Game RTP may be fixed by game design and may have a fixed average value over a long period while Machine RTP may be variable depending on wagering behaviour of players.

Based on typical player behaviour, it is typically found that PP Bet and PP Win
20 generally increase faster than CC Bet. This may be due to the nature of programming of a gaming machine where a normal Game RTP is generally more than 50%. Also, the player is generally more likely to use PP Bet than CC Bet for continuous wagering. In addition, since Game RTP = Win/Bet, PP Win generally increases proportionally as bet increases. From equation (2), when PP Bet and PP Win increase at a faster rate than
25 CC Bet, the resulting Machine RTP is higher. As a result, a high (real) RTP may be achieved as turnover increases.

The gaming machine may comprise a computer module 302, schematically shown in Figure 3. The computer module 302 in the example implementation
30 includes a processor 318, a Random Access Memory (RAM) 320 and a Read Only Memory (ROM) 322. The computer module 302 also includes a number of Input/Output (I/O) interfaces, for example I/O interface 324 to a display 308.

The components of the computer module 302 typically communicate via an interconnected bus 328 and in a manner known to the person skilled in the relevant art.

5 The application program is typically supplied to the operator of the gaming machine 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 330. The application program is read and controlled in its execution by the processor 318. Intermediate storage of program
10 data may be accomplished using RAM 320.

Figure 4 shows a schematic drawing of a gaming machine 400 according to an example implementation. The gaming machine 400 comprises one or more Play Point (PP) databases 402, 404 for storing respective winning credit balances
15 awarded by an entertainment game executed on the gaming machine 400. A display 406 for displaying the winning credit balances is coupled to a processor 408. The processor 408 is coupled to the databases 402, 404 for maintaining the one or more PP databases 402, 404 based on winning credits awarded by the entertainment game. A payout module 410 is coupled to the processor 408. The processor 408
20 applies respective reduction rates to the winning credit balances displayed by the display 406 and stored in the respective PP databases 402, 404 when instructing a payout function to be executed by the payout module 410.

Figure 5 is a flowchart illustrating a method of implementing an entertainment
25 game on a gaming machine. At step 502 respective winning credit balances awarded by the entertainment game executed on the gaming machine are stored in one or more Play Point (PP) databases. At step 504, the winning credit balances are displayed. At step 506, the one or more PP databases are maintained based on winning credits awarded by the entertainment game. At step 508, respective
30 reduction rates are applied to the winning credit balances displayed and stored in the respective PP databases when instructing a payout function to be executed by a payout module of the gaming machine.

Figure 6 shows a schematic drawing of a gaming machine 600 according to another example implementation. The gaming machine 600 comprises an entertainment game module 602, one or more Play Point (PP) databases 604, 606 for storing respective winning credit balances awarded by the entertainment game module 602, and a display 608 for displaying the winning credit balances. The entertainment game module 602 is programmed to a selected game return-to-player (RTP) value taking into consideration one or more reduction rates applicable to the winning credit balances, whereby a virtual machine RTP of the gaming machine 600 as audited with reference to the displayed winning credit balances is higher than an actual machine RTP of the gaming machine 600 as audited with reference to an actual value of a payout of the gaming machine after application of the reduction rates.

Figure 7 is a flowchart illustrating a method of implementing an entertainment game on a gaming machine. At step 702, respective winning credit balances awarded by an entertainment game module are stored in one or more Play Point (PP) databases. At step 704, the winning credit balances are displayed. At step 706, the entertainment game module is programmed to a selected game return-to-player (RTP) value taking into consideration one or more reduction rates applicable to the winning credit balances, whereby a virtual machine RTP of the gaming machine as audited with reference to the displayed winning credit balances is higher than an actual machine RTP of the gaming machine as audited with reference to an actual value of a payout of the gaming machine after application of the reduction rates.

The example implementation described above may provide a high level of gaming entertainment and amusement even in countries and regions imposing high gaming taxes. If the player does not cash out the winnings but continues to play on the gaming machine, the resulting game RTPs may be higher and may be easily felt by the player.

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.

5 For gaming machines implemented as physical gaming machines, although touch screen keys have been described in the example implementation, other actuators such as mechanical keys or pull/push handles may also be used to play the games contained in the gaming machine.

10 Furthermore, although the entertainment game has been described as a reel game, other forms and graphical representations of games including, but not limited to, card games, numbers games, sports games etc., can be implemented instead.

CLAIMS

1. A gaming machine comprising:
one or more Play Point (PP) databases for storing respective winning credit
5 balances awarded by an entertainment game executed on the gaming machine;
a display for displaying the winning credit balances;
a processor for maintaining the one or more PP databases based on winning
credits awarded by the entertainment game; and
a payout module;
10 wherein the processor applies respective reduction rates to the winning credit
balances displayed by the display and stored in the respective PP databases when
instructing a payout function to be executed by the payout module.

2. The gaming machine as claimed in claim 1, wherein the one or more
15 PP databases have different associated reduction rates.

3. The gaming machine as claimed in any one of the preceding claims,
wherein the winning credits are stored in the one or more PP databases based on
one or more categories.
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4. The gaming machine as claimed in any one of the preceding claims,
wherein the payout function comprises payout of the winning credit balances and
payout of a current game credit balance.

5. The gaming machine as claimed in claim 4, wherein the payout
25 comprises cash, electronic payment or awarding of non-cash prizes.

6. The gaming machine as claimed in claim 5, wherein for the awarding
of non-cash prizes, the payout comprises a refund of the game credit balance and
30 converting the winning credit balances to non-cash prizes.

7. The gaming machine as claimed in any one of the preceding claims,
wherein the processor, based on a user request, instructs the payout module to
execute a transfer function, the transfer function comprising transferring the winning

credit balances to a winning credit account of the player without applying the reduction rates, and transferring a game credit balance to a game credit account of the player, or the transfer function comprises converting the winning credit balances into game credits with applying the reduction rates, and transferring a resulting
5 game credit balance to the game credit account of the player.

8. The gaming machine as claimed in claim 7, wherein the winning credit account, the game credit account of the player, or both, are maintained in a player identification card, in a centralized system coupled to the gaming machine, or both.
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9. The gaming machine as claimed in any one of the preceding claims, wherein the processor, in a first operation state, applies the respective reduction rates to the winning credit balances displayed by the display and stored in the respective PP databases when instructing a player requested payout function to be
15 executed by the payout module.

10. The gaming machine as claimed in any one of the preceding claims, wherein the processor, in a second operation state, applies the respective reduction rates to at least one of the winning credit balances displayed by the display and
20 stored in the respective PP databases when instructing an automatic payout function to be executed by the payout module after every turn of the entertainment game, the automatic payout function comprising converting said at least one winning credit balance into game credits.

25 11. The gaming machine as claimed in any one of the preceding claims, wherein the processor deducts a wagered amount from the PP databases and from a game credit database based on a pre-defined algorithm.

30 12. The gaming machine as claimed in claim 11, wherein the pre-defined algorithm comprises deducting the wagered amount first from the PP databases and then deducting any remainder of the wagered amount from the game credit database.

13. The gaming machine as claimed in claims 11 or 12, wherein the pre-defined algorithm comprises deducting the wagered amount from the PP databases based on pre-defined order of deducting from the PP databases.

5 14. The gaming machine as claimed in any one of claims 1 to 10, wherein the processor deducts a wagered amount from the PP databases and from a game credit database based on a player selection.

10 15. The gaming machine as claimed in claim 14, wherein the player selection further comprises a player selected order of the PP databases.

16. The gaming machine as claimed in any one of claims 11 to 15, wherein in the deductions from the PP databases, no reduction rate is applied.

15 17. The gaming machine as claimed in any one of claims 11 to 15, wherein in the deductions from the PP databases, one or more reduction rates are applied.

20 18. The gaming machine as claimed in any one of the preceding claims, wherein a virtual return-to-player (RTP) of the gaming machine as audited with reference to the displayed winning credit balances is higher than an actual RTP of the gaming machine as audited with reference to the payout of the gaming machine.

25 19. A method of implementing an entertainment game on a gaming machine, the method comprising:

storing respective winning credit balances awarded by the entertainment game executed on the gaming machine in one or more Play Point (PP) databases;

displaying the winning credit balances;

30 maintaining the one or more PP databases based on winning credits awarded by the entertainment game; and

applying respective reduction rates to the winning credit balances displayed and stored in the respective PP databases when instructing a payout function to be executed by a payout module of the gaming machine.

20. A computer readable data storage medium having stored thereon computer code means for instructing a computer processor of a gaming machine to execute a method of implementing an entertainment game, the method comprising:

- storing respective winning credit balances awarded by the entertainment
- 5 game executed on the gaming machine in one or more Play Point (PP) databases;
- displaying the winning credit balances;
- maintaining the one or more PP databases based on winning credits awarded by the entertainment game; and
- applying respective reduction rates to the winning credit balances displayed
- 10 and stored in the respective PP databases when instructing a payout function to be executed by a payout module of the gaming machine.

21. A gaming machine comprising:

- an entertainment game module;
- 15 one or more Play Point (PP) databases for storing respective winning credit balances awarded by the entertainment game module;
- a display for displaying the winning credit balances;
- wherein the entertainment game module is programmed to a selected game return-to-player (RTP) value taking into consideration one or more reduction rates
- 20 applicable to the winning credit balances, whereby a virtual machine RTP of the gaming machine as audited with reference to the displayed winning credit balances is higher than an actual machine RTP of the gaming machine as audited with reference to an actual value of a payout of the gaming machine after application of the reduction rates.

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22. A method of implementing an entertainment game on a gaming machine, the method comprising:

- storing respective winning credit balances awarded by an entertainment
- game module in one or more Play Point (PP) databases;
- 30 displaying the winning credit balances;
- programming the entertainment game module to a selected game return-to-player (RTP) value taking into consideration one or more reduction rates applicable to the winning credit balances, whereby a virtual machine RTP of the gaming machine as audited with reference to the displayed winning credit balances is higher

than an actual machine RTP of the gaming machine as audited with reference to an actual value of a payout of the gaming machine after application of the reduction rates.

- 5 23. A computer readable data storage medium having stored thereon computer code means for instructing a computer processor of a gaming machine to execute a method of implementing an entertainment game, the method comprising:
- storing respective winning credit balances awarded by an entertainment game module in one or more Play Point (PP) databases;
- 10 displaying the winning credit balances;
- programming the entertainment game module to a selected game return-to-player (RTP) value taking into consideration one or more reduction rates applicable to the winning credit balances, whereby a virtual machine RTP of the gaming machine as audited with reference to the displayed winning credit balances is higher
- 15 than an actual machine RTP of the gaming machine as audited with reference to an actual value of a payout of the gaming machine after application of the reduction rates.