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(54) **GAMING SYSTEM, A METHOD OF GAMING AND AN AWARD CONTROLLER**

(76) Inventor: **Peter Thomas Kup-Ferroth**, Lane Cove (AU)

Correspondence Address:
MCANDREWS HELD & MALLOY, LTD
500 WEST MADISON STREET, SUITE 3400
CHICAGO, IL 60661

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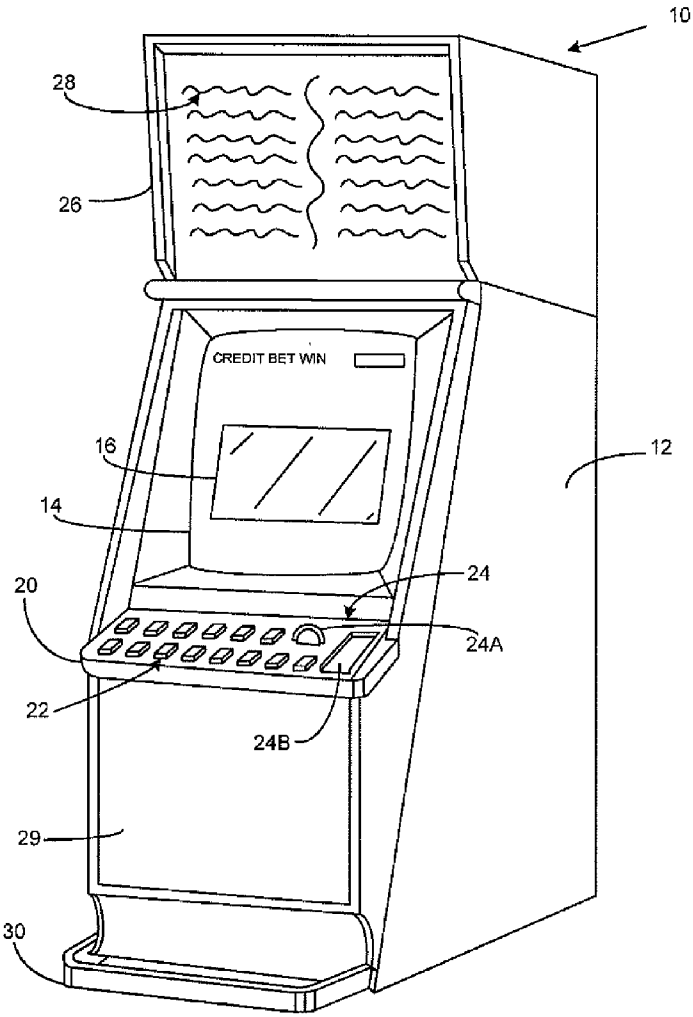
(57) **ABSTRACT**

A method of gaming comprising: keeping a score of at least one award for each participating gaming device of a plurality of gaming devices; updating the respective scores based on play of the respective gaming devices; keeping an aggregate score of each at least one award; updating the aggregate score in response to score aggregation events associated with the respective gaming devices, each update based at least on a current score of the individual gaming device with which the respective aggregation event is associated; determining, in response to each aggregation event, whether to make a prize award based on a current aggregate score and a prize award score to the player of the gaming device with which the aggregation event is associated.



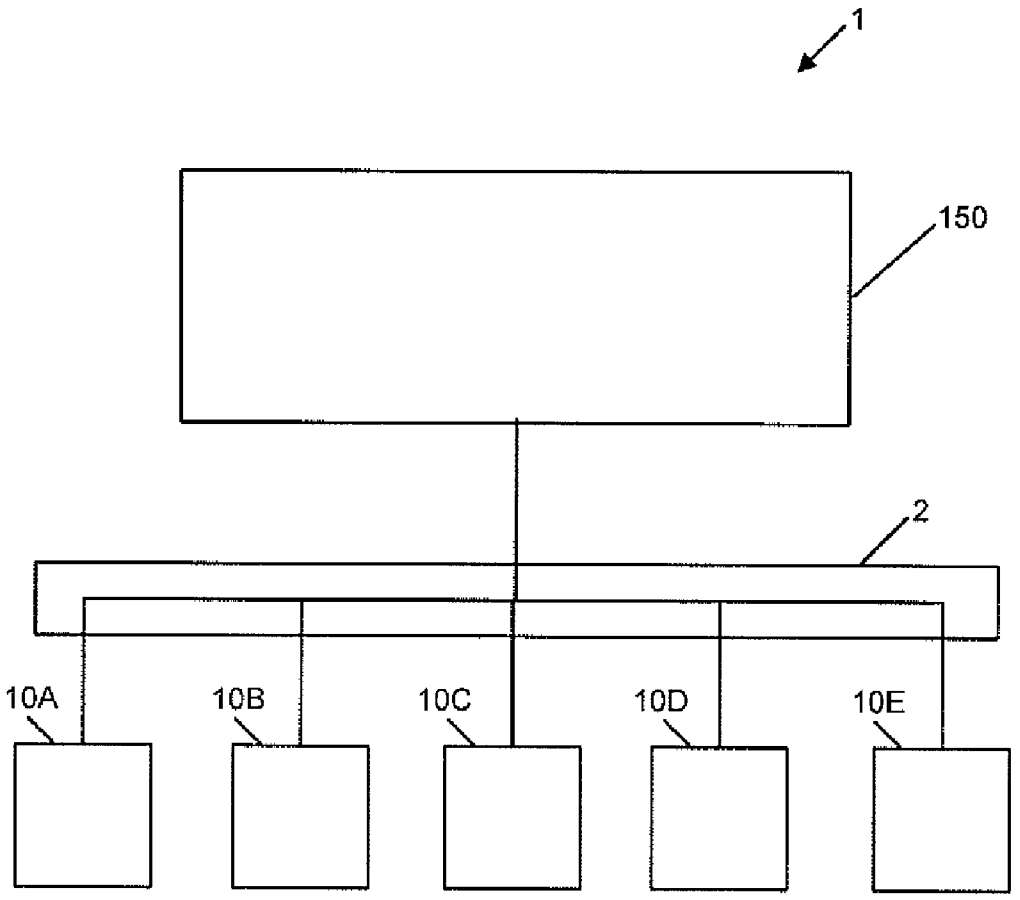


Figure 1

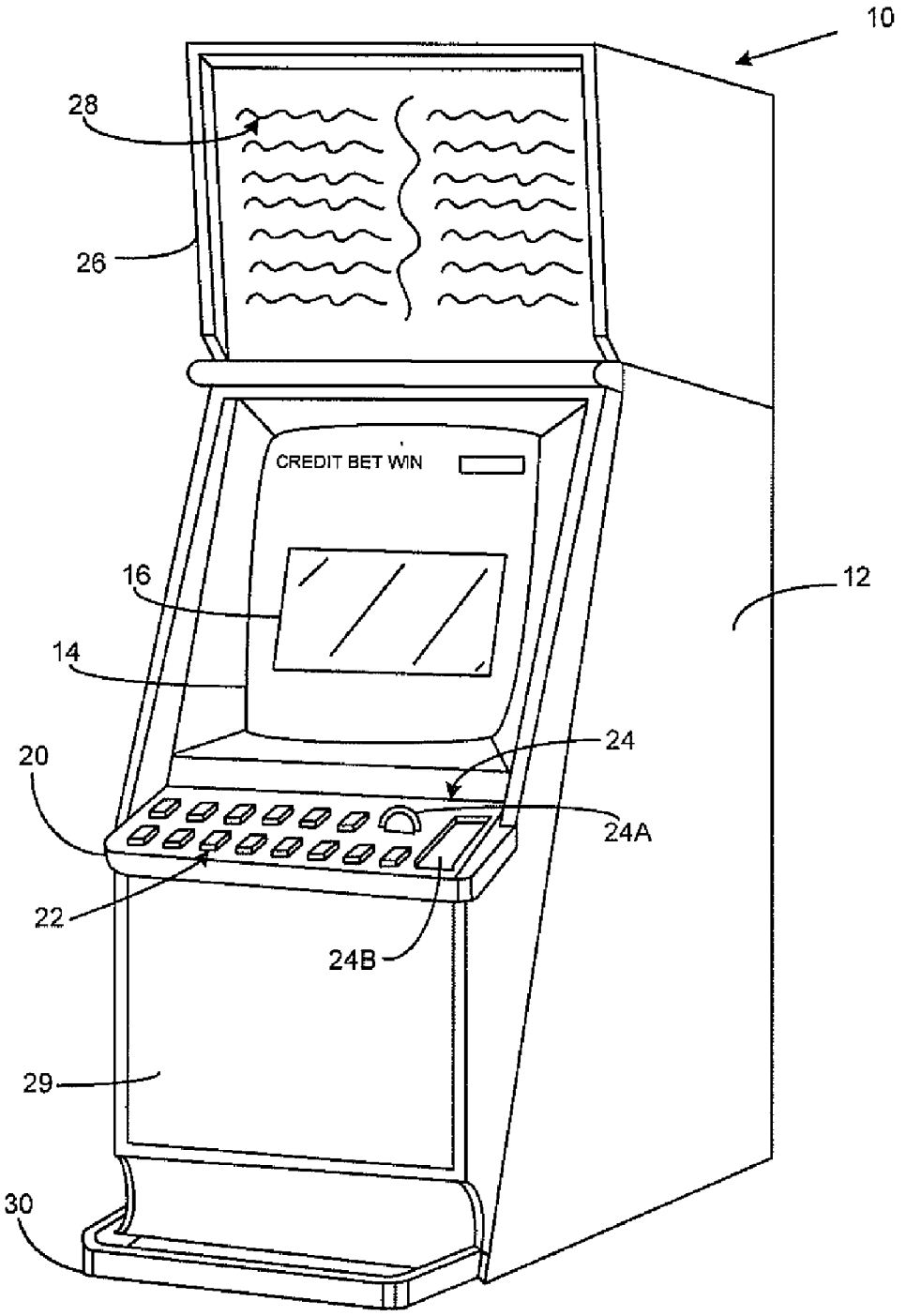


Figure 2

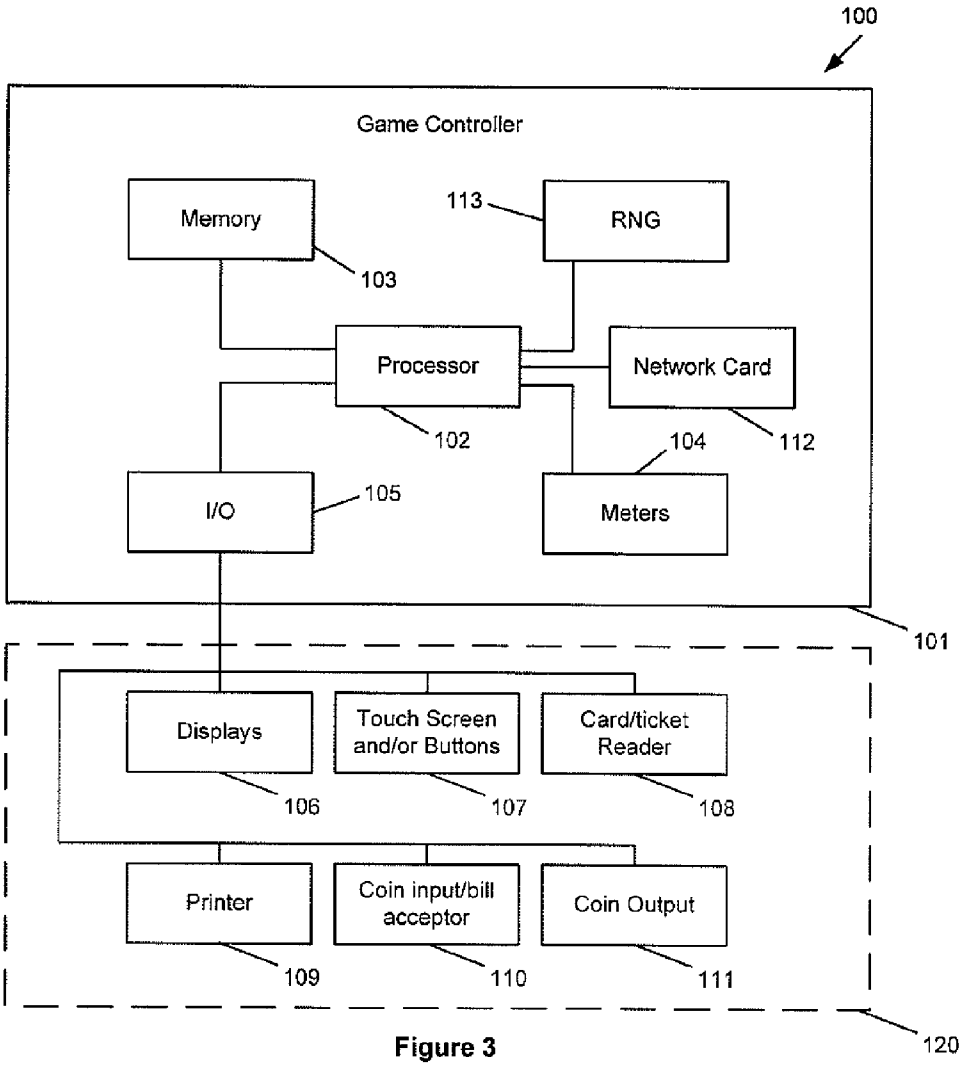


Figure 3

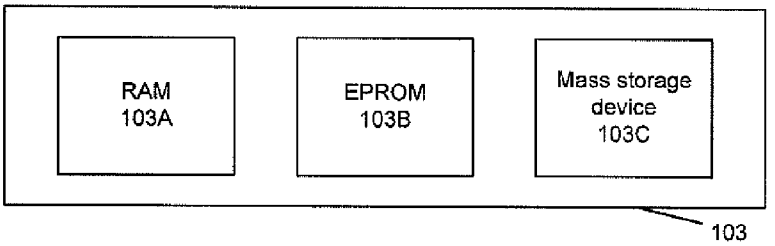


Figure 4

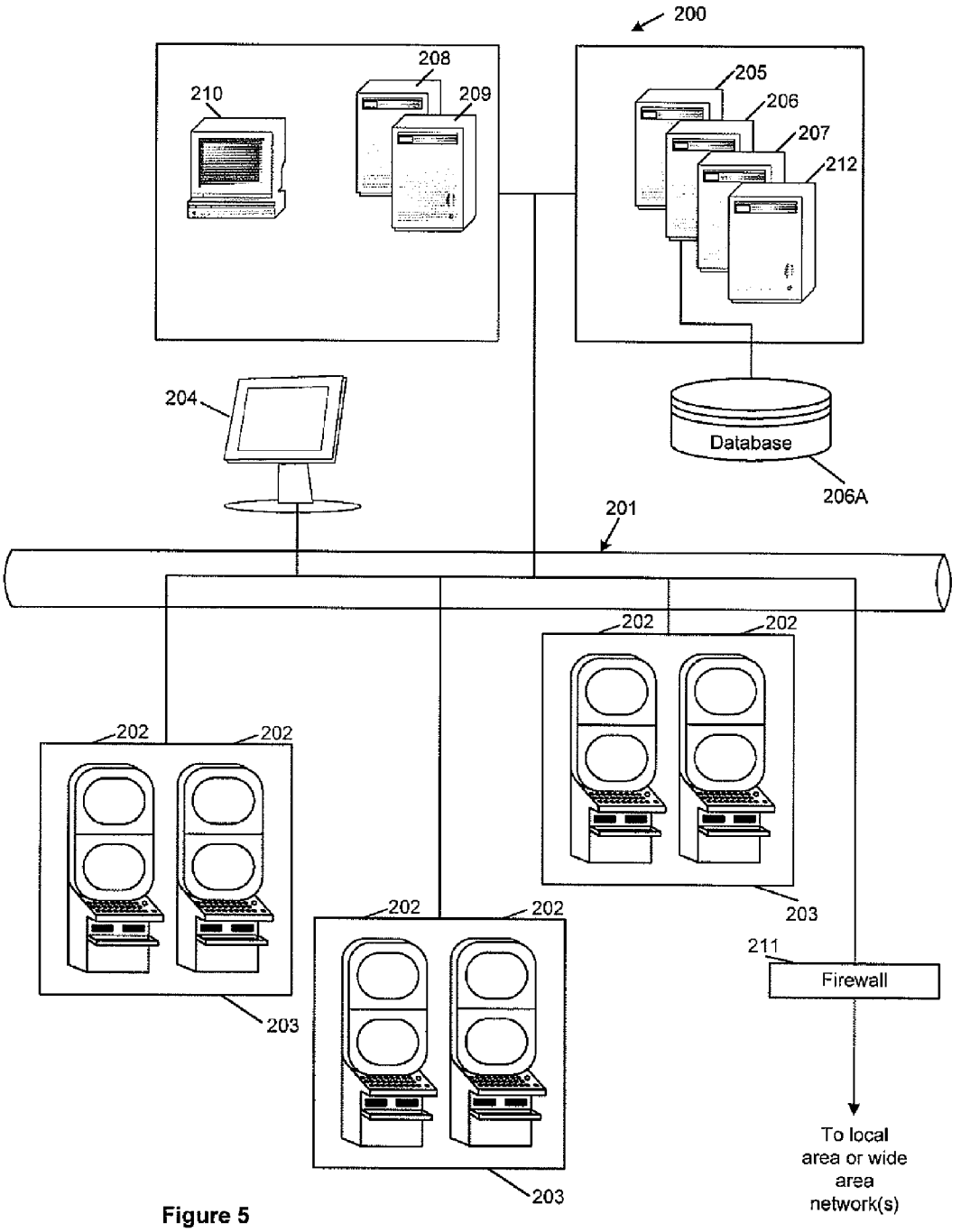

200
208
210
209
205
206
207
212
204
Database
206A
201
202
202
202
202
202
202
203
203
211
Firewall
To local area or wide area network(s)

Figure 5

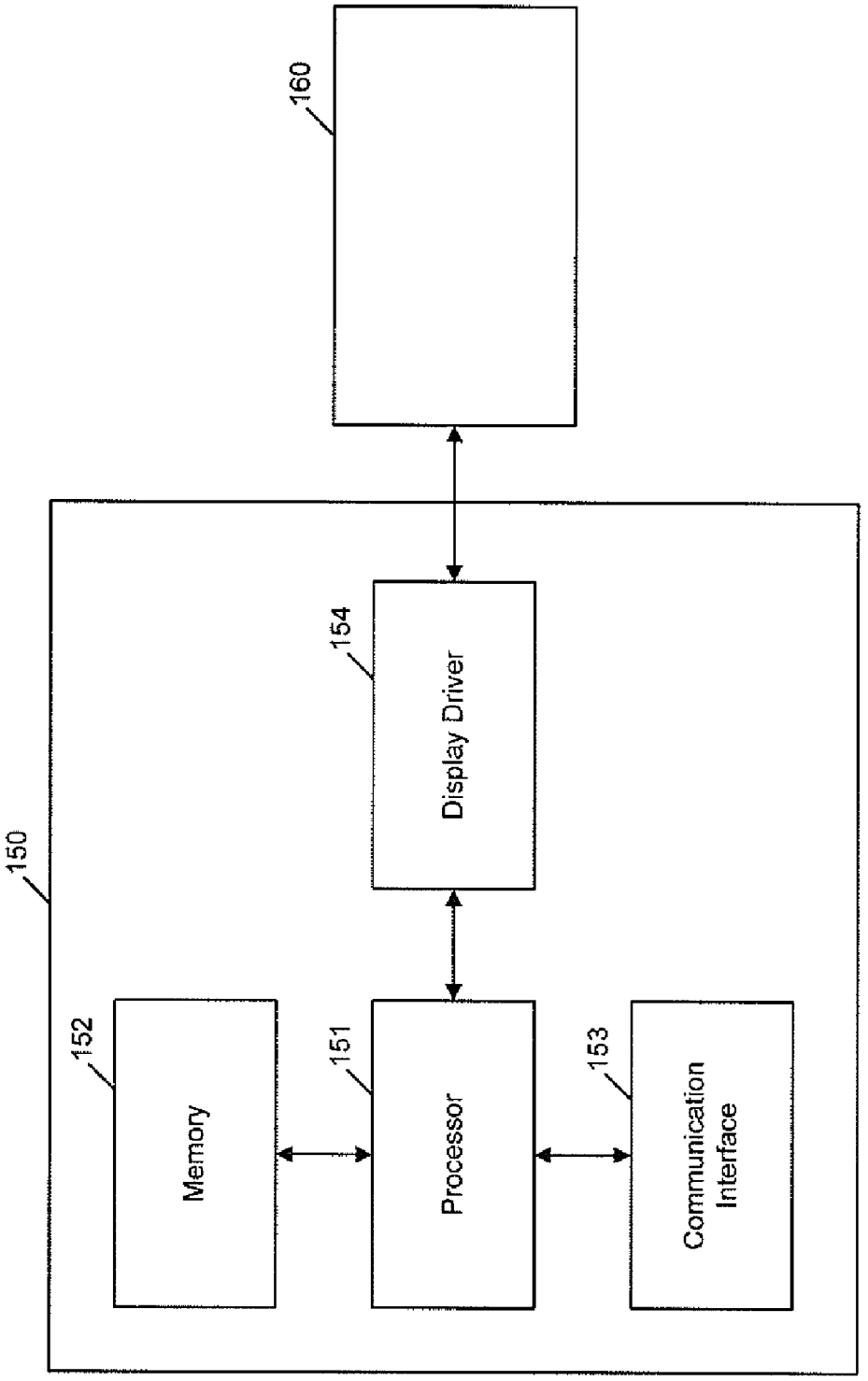

160
150
154
Display Driver
152
Memory
151
Processor
153
Communication Interface

Figure 6

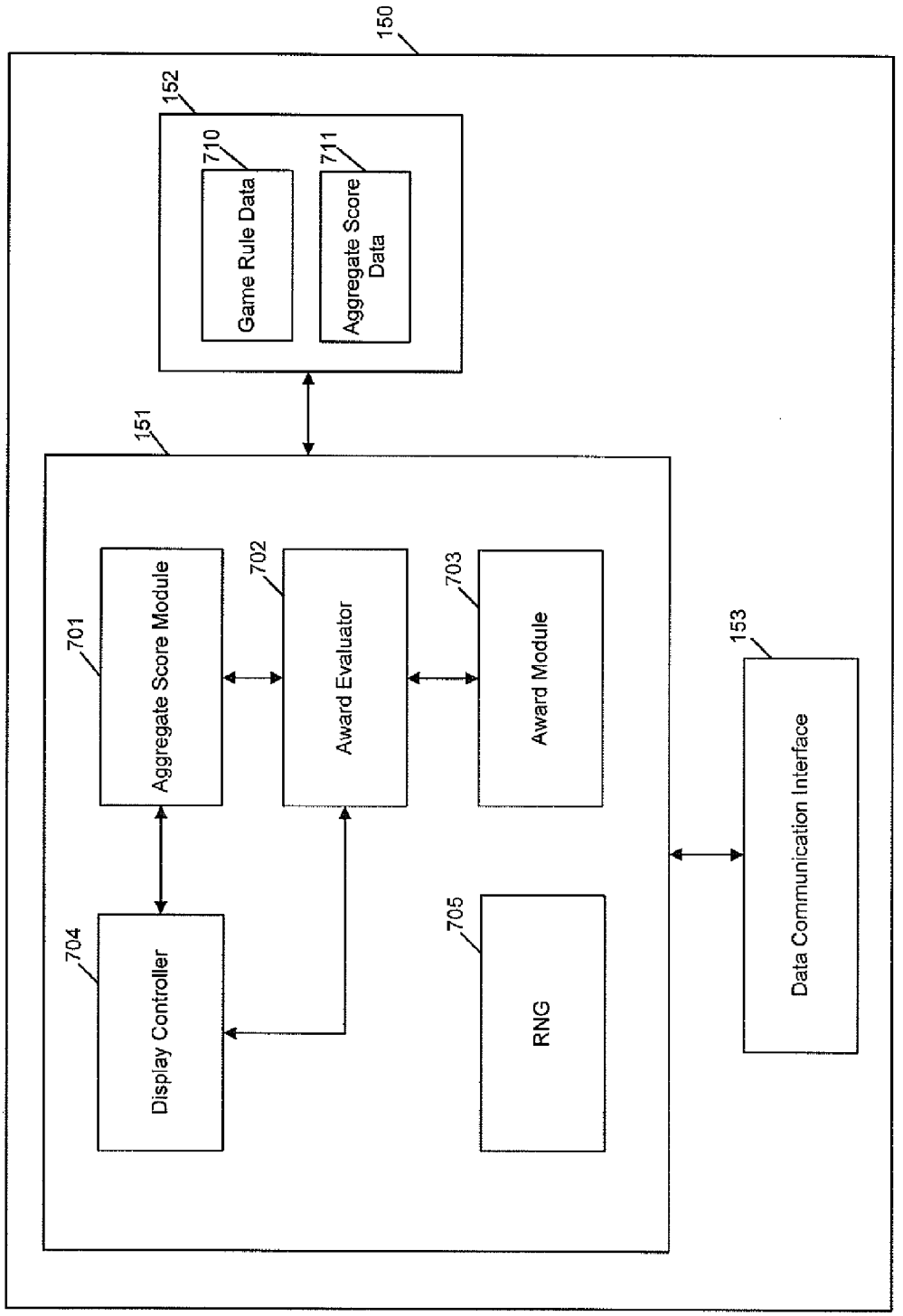

150
152
710
Game Rule Data
711
Aggregate Score Data
151
701
Aggregate Score Module
702
Award Evaluator
703
Award Module
153
Data Communication Interface
704
Display Controller
705
RNG

Figure 7

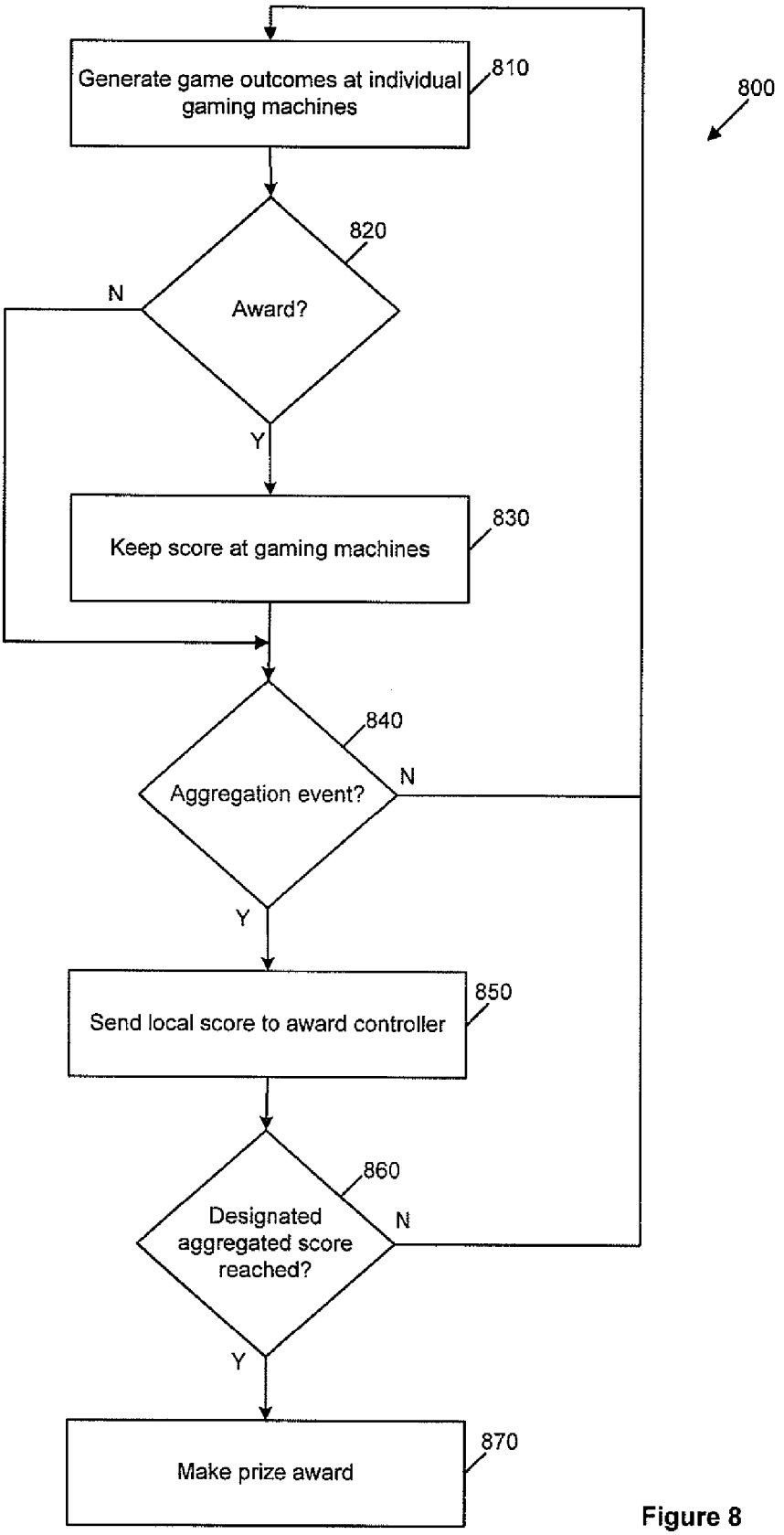

800
Generate game outcomes at individual gaming machines
810
Award?
820
N
Y
Keep score at gaming machines
830
Aggregation event?
840
N
Y
Send local score to award controller
850
Designated aggregated score reached?
860
N
Y
Make prize award
870

Figure 8

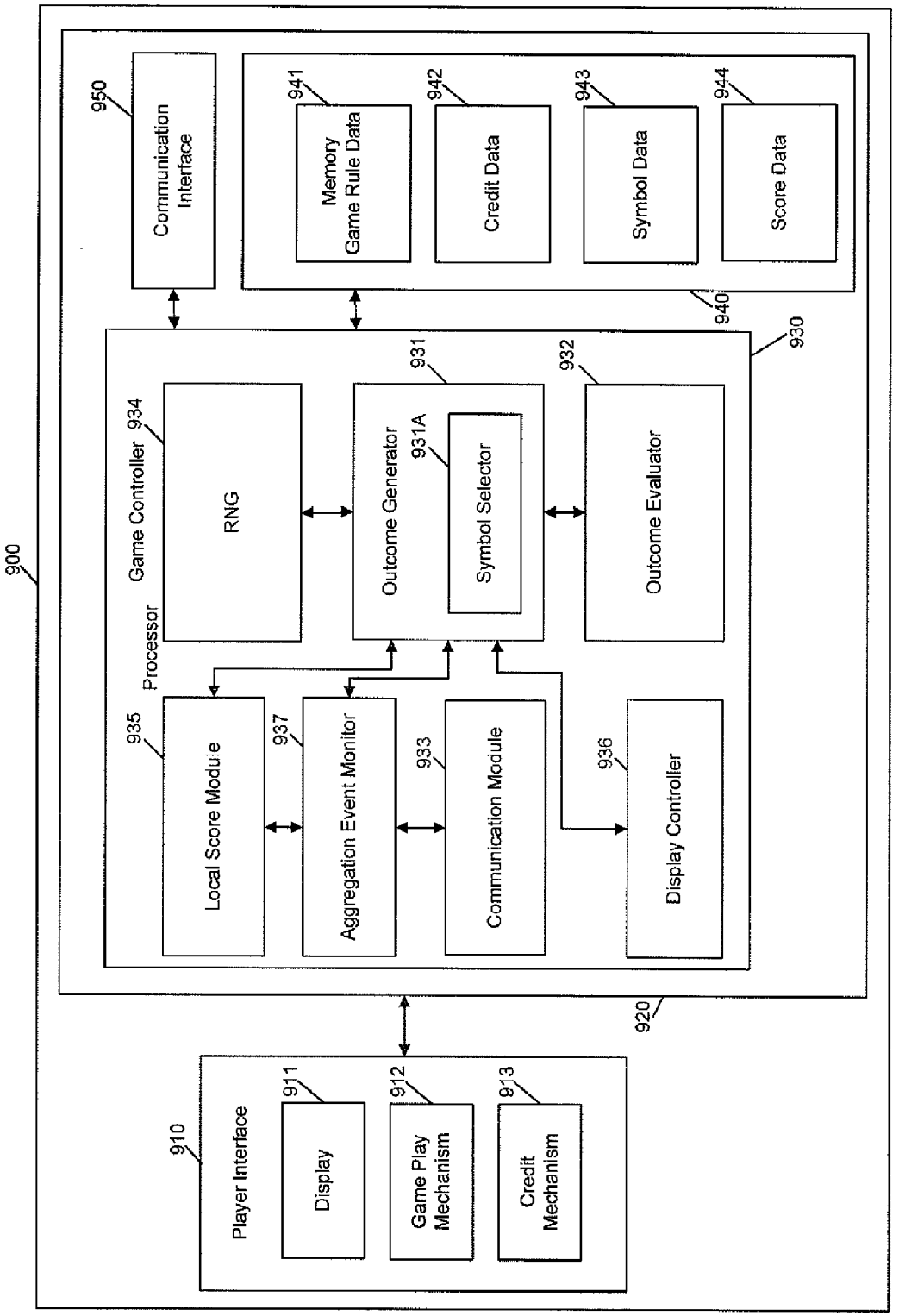

900
950
Communication Interface
941
Memory Game Rule Data
942
Credit Data
943
Symbol Data
944
Score Data
940
930
Processor
Game Controller
934
RNG
931
Outcome Generator
931A
Symbol Selector
932
Outcome Evaluator
935
Local Score Module
937
Aggregation Event Monitor
933
Communication Module
936
Display Controller
920
910
Player Interface
911
Display
912
Game Play Mechanism
913
Credit Mechanism

Figure 9

GAMING SYSTEM, A METHOD OF GAMING AND AN AWARD CONTROLLER

RELATED APPLICATIONS

[0001] This application claims priority to Australian Application No. 2009902168, having a filing date of May 14, 2009, which is incorporated herein by reference in its entirety.

FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT

[0002] Not Applicable

MICROFICHE/COPYRIGHT REFERENCE

[0003] Not Applicable

BACKGROUND OF THE INVENTION

[0004] The present invention relates to a gaming system, a method of gaming and an award controller.

[0005] In some gaming systems, a jackpot controller is used to make an additional award to a player of an individual gaming machine. Depending on the implementation the decision to make the jackpot award can be made at the gaming machine or at the jackpot controller. In one type of jackpot controller known as a mystery jackpot controller, each gaming machine makes a contribution of part of the amount wagered to a jackpot pool each time it is played and a jackpot award is made to the gaming machine which causes the jackpot value to reach a designated, hidden value.

[0006] While such gaming systems provide players with enjoyment, a need exists for alternative gaming systems in order to maintain or increase player enjoyment.

BRIEF SUMMARY OF THE INVENTION

[0007] In a first aspect, the invention provides a method of gaming comprising:

[0008] keeping a score of at least one award for each participating gaming device of a plurality of gaming devices;

[0009] updating the respective scores based on play of the respective gaming devices;

[0010] keeping an aggregate score of each at least one award;

[0011] updating the aggregate score in response to score aggregation events associated with the respective gaming devices, each update based at least on a current score of the individual gaming device with which the respective aggregation event is associated;

[0012] determining, in response to each aggregation event, whether to make a prize award based on a current aggregate score and a prize award score to the player of the gaming device with which the aggregation event is associated.

[0013] In an embodiment, each award comprises a symbol, and the score for each gaming device comprises a current total of awarded symbols for the respective gaming device.

[0014] In an embodiment, the method comprises keeping separate scores for a plurality of different symbols for each gaming device.

[0015] In an embodiment, the method comprises updating each respective score comprises resetting the respective score to an initial value upon the aggregate score being updated.

[0016] In an embodiment, the method comprises determining during each play of each gaming device, whether to make the at least one award for which the score is kept.

[0017] In an embodiment, the determination comprises conducting at least one random trial for the award.

[0018] In an embodiment, the determination comprises evaluating a game outcome generated during play of the gaming device to determine whether it corresponds to the at least one award.

[0019] In an embodiment, each award is of points, and the score comprises a total of awarded points.

[0020] In an embodiment, each score aggregation event comprises an occurrence of an aggregation symbol during play of the respective gaming devices.

[0021] In an embodiment, the score aggregation event comprises carrying out a play of a game with an individual gaming device.

[0022] In an embodiment, the method comprises keeping the aggregate score at an award controller in data communication with each of the gaming devices.

[0023] In an embodiment, the method comprises determining whether to make the prize award at the award controller.

[0024] In an embodiment, the method comprises keeping scores for respective gaming devices at the respective gaming devices.

[0025] In an embodiment, determining whether to make an award includes determining whether the current aggregate score is or exceeds a prize award score.

[0026] In an embodiment, there are a plurality of prize awards associated with respective ones of the awards, and wherein only one of the awards may be made in response to an aggregation event such that if an aggregation event results in two or more aggregate scores reaching or exceeding a prize award score, only one of the prize awards is made, whereby the next aggregation event may result in the award of another prize award without the aggregate score associated with that prize award increasing.

[0027] In a second aspect, the invention provides a gaming system comprising:

[0028] a plurality of gaming devices, each individual gaming device arranged to keep a score of at least one award and update the score based on play of the gaming device; and

[0029] an award controller in data communication with the gaming devices, arranged to:

[0030] keep an aggregate score of each at least one award;

[0031] update the aggregate score in response to score aggregation events associated with the respective gaming devices, each update based on a current score of the individual gaming device with which the respective aggregation event is associated, and

[0032] determine, in response to each aggregation event, whether to make a prize award based on a current aggregate score and a prize award score to the player of the gaming device with which the aggregation event is associated.

[0033] In an embodiment, each award comprises a symbol, and the score for each gaming device comprises a current total of awarded symbols for the respective gaming device.

[0034] In an embodiment, each gaming device is arranged to keep separate scores for a plurality of different symbols and the award controller keeps an aggregated score for each different symbol.

[0035] In an embodiment, each game device is arranged to update the score, in part by resetting the respective score to an initial value upon the aggregate score being updated.

[0036] In an embodiment, each gaming device is arranged to determine during each play of the respective gaming device, whether to make the at least one award for which the score is kept.

[0037] In an embodiment, the determination comprises conducting at least one random trial for the award.

[0038] In an embodiment, the determination comprises evaluating a game outcome generated during play of the gaming device to determine whether it corresponds to the at least one award.

[0039] In an embodiment, each award is of points, and the score and aggregate score comprise a total of points.

[0040] In an embodiment, each score aggregation event comprises an occurrence of an aggregation symbol during play of the respective gaming devices.

[0041] In an embodiment, the score aggregation event comprises carrying out a play of a game with an individual gaming device.

[0042] In an embodiment, the award controller determines whether to make an award by determining whether the current aggregate score is or exceeds a prize award score.

[0043] In an embodiment, there are a plurality of prize awards associated with respective ones of the awards, and the award controller is arranged to make only one of the awards in response to a specific aggregation event such that if an aggregation event results in two or more aggregate scores reaching or exceeding a prize award score, whereby the next aggregation event may result in the award of another prize award without the aggregate score associated with that prize award increasing.

[0044] In an embodiment, the award controller is a jackpot controller.

[0045] In a third aspect, the invention provides an award controller for a gaming system, the award controller arranged to:

[0046] keep an aggregate score of at least one award;

[0047] update the aggregate score in response to score aggregation events associated with respective ones of a plurality gaming devices, each update based on a current score of awards made at the individual gaming device with which the respective aggregation event is associated; and

[0048] determine, in response to each aggregation event, whether to make a prize award to the player of the gaming device with which the aggregation event is associated, based on a current aggregate score and a prize award score.

[0049] In an embodiment, each award comprises a symbol, and the aggregate score for comprises a current total of aggregated symbols.

[0050] In an embodiment, the award controller is arranged to keep separate aggregate scores for each of a plurality of different symbols.

[0051] In an embodiment, each award is of points, and the aggregate score comprises a total of points.

[0052] In an embodiment, the award controller is arranged to determine whether to make an award by determining whether the current aggregate score is or exceeds a prize award score.

[0053] In an embodiment, there are a plurality of prize awards associated with respective ones of the awards, and the award controller is arranged to make only one of the awards in response to a specific aggregation event such that if an aggregation event results in two or more aggregate scores reaching or exceeding a prize award score, whereby the next aggregation event may result in the award of another prize award without the aggregate score associated with that prize award increasing.

[0054] In a fourth aspect, the invention provides computer program code which when executed implements the above method.

[0055] In a fifth aspect, the invention provides a tangible computer readable medium comprising the above program code.

[0056] In a sixth aspect, the invention extends to transmitting the above program code.

BRIEF DESCRIPTION OF SEVERAL VIEWS OF THE DRAWINGS

[0057] Embodiments of the invention will now be described, by way of example, with reference to the accompanying drawings in which:

[0058] FIG. **1** is a block diagram of a gaming system with an award controller;

[0059] FIG. **2** is a perspective view of a stand alone gaming machine;

[0060] FIG. **3** is a block diagram of the functional components of a gaming machine;

[0061] FIG. **4** is a schematic diagram of the functional components of a memory;

[0062] FIG. **5** is a schematic diagram of a network gaming system;

[0063] FIG. **6** is a block diagram of an award controller;

[0064] FIG. **7** is a functional block diagram of a award controller;

[0065] FIG. **8** is a flow chart of an embodiment; and

[0066] FIG. **9** is a functional block diagram of a gaming device in the form of a standalone gaming machine.

DETAILED DESCRIPTION OF THE INVENTION

[0067] Overview of gaming system of one embodiment

[0068] FIG. **1** shows a gaming system **1** of one embodiment where a award controller **150** is in data communication over a network **2**, such as an Ethernet, with a bank of five gaming devices in the form of standalone gaming machines **10**. Each of the gaming machines **10** is arranged to make an award, such as at least one designated symbol during normal game play. A local score of awards, such as a total of awarded symbols, is kept at the gaming machines. When an aggregation event, occurs, such as a special symbol occurring at the gaming machine **10**, the local score of a gaming machine is sent to the award controller **150** which keeps an aggregate score such as an aggregate count of the designated symbol. In one embodiment, the award controller **150** keeps aggregate scores for a plurality of different symbols. In an embodiment, the award controller **10** makes an award when the local score sent to the controller causes the aggregate score to reach or exceed a prize award score.

[0069] Gaming Devices

[0070] Gaming devices capable of participating in the method of gaming of the embodiment can take any suitable form including stand alone gaming machines and server based gaming terminals.

[0071] A gaming device in the form of a stand alone gaming machine **10** is illustrated in FIG. **2**. The gaming machine **10** includes a console **12** having a display **14** on which are 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 **24**A and a bill collector **24**B. Other credit input mechanisms may also be employed, for example, a card reader for reading a smart card, debit card or credit card. Other gaming machines may configure for ticket in such that they have a ticket reader for reading tickets having a value and crediting the player based on the face value of the ticker. A player marketing module (not shown) having 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. In some embodiments, the player marketing module may provide an additional credit mechanism, either by transferring credits to the gaming machine from credits stored on the player tracking device or by transferring credits from a player account in data communication with the player marketing module.

[0072] 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**.

[0073] The display **14** shown in FIG. **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.

[0074] FIG. **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 FIG. **2**.

[0075] The gaming machine **100** includes a game controller **101** having a processor **102** mounted on a circuit board. Instructions and data to control operation of the processor **102** are stored in a memory **103**, which is in data communication with the processor **102**. Typically, the gaming machine **100** 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 **103**.

[0076] The gaming machine has hardware meters **104** for purposes including ensuring regulatory compliance and monitoring player credit, an input/output (I/O) interface **105** for communicating with peripheral devices of the gaming machine **100**. The input/output interface **105** 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 **113** generates random numbers for use by the processor **102**. Persons skilled in the art will appreciate that the reference to random numbers includes pseudo-random numbers.

[0077] In the example shown in FIG. **3**, a player interface **120** includes peripheral devices that communicate with the game controller **101** including one or more displays **106**, a touch screen and/or buttons **107** (which provide a game play mechanism), a card and/or ticket reader **108**, a printer **109**, a bill acceptor and/or coin input mechanism **110** and a coin output mechanism **111**. Additional hardware may be included as part of the gaming machine **100**, or hardware may be omitted as required for the specific implementation. For example, while buttons or touch screens are typically used in gaming machines to allow a player to place a wager and initiate a play of a game any input device that enables the player to input game play instructions may be used.

[0078] In addition, the gaming machine **100** may include a communications interface, for example a network card **112**. The network card may, for example, send status information, accounting information or other information to a bonus controller, central controller, server or database and receive data or commands from the bonus controller, central controller, server or database. In embodiments employing a player marketing module, communications over a network may be via player marketing module—i.e. the player marketing module may be in data communication with one or more of the above devices and communicate with it on behalf of the gaming machine.

[0079] FIG. **4** shows a block diagram of the main components of an exemplary memory **103**. The memory **103** includes RAM **103**A, EPROM **103**B and a mass storage device **103**C. The RAM **103**A typically temporarily holds program files for execution by the processor **102** and related data. The EPROM **103**B may be a boot ROM device and/or may contain some system or game related code. The mass storage device **103**C is typically used to store game programs, the integrity of which may be verified and/or authenticated by the processor **102** using protected code from the EPROM **103**B or elsewhere.

[0080] It is also possible for the operative components of the gaming machine **100** to be distributed, for example input/output devices **106**,**107**,**108**,**109**,**110**,**111** to be provided remotely from the game controller **101**.

[0081] In a client server architecture a gaming device is provided by a gaming client and game server (and optionally other gaming network components). A gaming client has a similar outward appearance to gaming machine **10** but the game server implements most or all of the game and as such acts as the game controller while the terminal operated by the player essentially provides only the player interface. The gaming terminal receives player instructions, pass these to the game server which will process them and return game play outcomes to the gaming machine for display. Further details of a client/server architecture can be found in Further details of a server gaming architecture can be found in WO 2006/052213 and PCT/SE2006/000559, the disclosures of which are incorporated herein by reference. In such an embodiment, a award controller can be provided, for example, by a dedicated server in data communication with the game server.

[0082] FIG. **5** shows that a gaming device may be connected within a gaming network **200** which provides additional and/or enhanced functionality. The gaming network **200** includes a network **201**, which for example may be an Ethernet network. Gaming machines **202**, shown arranged in three banks **203** of two gaming machines **202** in FIG. **5**, are connected to the network **201**. The gaming machines **202** provide a player operable interface and may be the same as the gaming machines **10**,**100** shown in FIGS. **2** and **3**. While banks **203** of two gaming machines are illustrated in FIG. **5**, banks of one, three or more gaming machines are also envisaged.

[0083] One or more displays **204** may also be connected to the network **201**. For example, the displays **204** may be associated with one or more banks **203** of gaming machines. The

displays **204** may be used to display representations associated with game play on the gaming machines **202**, and/or used to display other representations, for example promotional or informational material.

[0084] An award controller can be provided within such a network **200** by linked game server **205**, such that the linked game server may implement a linked game for a plurality of different banks of gaming machines rather than a specific controller being provide for each bank of gaming machines.

[0085] A database management server **206** may manage storage of game programs and associated data for downloading or access by the gaming devices **202** in a database **206**A. Typically, if the gaming system enables players to participate in a Jackpot game, a Jackpot server **207** will be provided to perform accounting functions for the Jackpot game. A loyalty program server **212** may also be provided.

[0086] Servers are also typically provided to assist in the administration of the gaming network **200**, including for example a gaming floor management server **208**, and a licensing server **209** to monitor the use of licenses relating to particular games. An administrator terminal **210** is provided to allow an administrator to run the network **201** and the devices connected to the network.

[0087] The gaming network **200** may communicate with other gaming systems, other local networks, for example a corporate network, and/or a wide area network such as the Internet, for example through a firewall **211**.

[0088] Persons skilled in the art will appreciate that in accordance with known techniques, functionality at the server side of the network may be distributed over a plurality of different computers. For example, elements may be run as a single "engine" on one server or a separate server may be provided. For example, the game server **205** could run a random generator engine. Alternatively, a separate random number generator server could be provided. Further, persons skilled in the art will appreciate that a plurality of game servers could be provided to run different games or a single game server may run a plurality of different games as required by the terminals.

[0089] FIG. **9** is a functional block diagram of a gaming device in the form of a stand alone gaming machine. The gaming device **900** may be the same or different to gaming machine **10**,**100** described above. In FIG. **9**, the processor **930** of game controller **920** is shown implementing a number of modules based on program code and data stored in memory **940**. Persons skilled in the art will appreciate that various of the modules could be implemented in some other way, for example by a dedicated circuit.

[0090] The gaming device **900** includes a player interface **910** having a display **911** for displaying game outcomes to a player and a game play mechanism **912** including input devices such as touch screen or buttons to enable the player to interact with the game by placing wagers and entering any other instructions required to play the game. Game play mechanism **912** also enables the player to interact with the game to learn game rules etc. The player interface **910** includes a credit mechanism **913** allowing the player to input credit into the gaming device **900** and/or be paid out any winnings or remaining credit. A person skilled in the art will appreciate that other components will be present in a gaming device **900** such as those described in relation to FIGS. **2** to **4** above. The memory **940** includes program code for implementing a game including base game rule data **941** for implementing the rules of a base game.

[0091] The processor **930** when executing the program code stored in memory **940** is arranged to generate outcomes of the game in response to the operation of the game play mechanism **912**. The outcomes are generated with the outcome generator **931**.

[0092] The embodiment is described in relation to the evaluation of games where symbols are selected for display in a manner equivalent to a conventional spinning reel type game. In such embodiments, the evaluation entitlement may be based on how many lines are played in each game. Such win lines are typically formed by a combination of symbol display positions, one from each reel, the symbol display positions being located relative to one another such that they form a line.

[0093] In many games, the win entitlement is not strictly limited to the selected win lines for example, "scatter" pays are awarded independently of a players selection of pay lines and are an inherent part of the evaluation entitlement.

[0094] Persons skilled in the art, will appreciate that in other embodiments, an evaluation entitlement may be based on a number of reels to play such as in games are marketed under the trade name "Reel Power" by Aristocrat Leisure Industries Pty Ltd. The selection of the reel means that each displayed symbol of the reel can be substituted for a symbol at one or more designated display positions. In other words, all symbols displayed at symbol display positions corresponding to a selected reel can be used to form symbol combinations with symbols displayed at a designated, symbol display positions of the other reels. For example, if there are five reels and three symbol display positions for each reel such that the symbol display positions comprise three rows of five symbol display positions, the symbols displayed in the centre row are used for non-selected reels. As a result, the total number of ways to win is determined by multiplying the number of active display positions of each reel, the active display positions being all display positions of each selected reel and the designated display position of the non-selected reels. As a result for five reels and fifteen display positions there are 243 ways to win.

[0095] Accordingly, the game controller **60** establishes the evaluation entitlement to be applied based on the wager made by the player using the game play mechanism. The outcome generator **931** generates a game outcome to be evaluated which is displayed on display **911**. In this example, by selecting symbols with a symbol selector **931**A. One example of selecting symbols is for the symbol selector **931**A to select symbols for display from a plurality of symbol sets corresponding to respective ones of a plurality of spinning reels. The symbol sets **943** can specify a sequence of symbols for each reel such that the symbol selector **931**A can select all of the symbols by selecting a stopping position in the sequence using random number generator **934**. In one example, three symbols of each of five reels may be displayed such that symbols are displayed at fifteen display positions on display **911** under control of display controller **936**. It is known to use a probability table stored in memory **940** to vary the odds of a particular stop position being selected. Other techniques can be used to control the odds of particular outcomes occurring to thereby control the return to player of the game.

[0096] Accordingly, as described above, at the completion of the outcome generation process controlled by the outcome generator **9311** a plurality of symbols are displayed at display positions on display **911**.

[0097] The outcome evaluator **932** evaluates the game outcomes that are generated based on the wager specified with the game play mechanism **912** and updates credit data **942** which stores a credit meter and a win meter for the game. The previously determined evaluation entitlement is applied by the award evaluator **932**. It is determined whether any base game awards should be made based on game rule data **941**—for example whether the symbols of the display positions of an active win line or in an active way to win correspond to designated symbol combinations in a pay table. Any base game awards are then made.

[0098] In addition to the above, awards may be made toward a linked game. In this embodiment, the awards are symbols and the linked game may be won by a player who causes an aggregate total of symbols to reach or exceed a prize award total. More generally, each gaming machine keeps a local score of awards (in this embodiment awarded symbols) and the linked game can be won if the aggregate score reaches a designated prize award score.

[0099] Awards of symbols to be accumulated towards to local score can be made in a number of different ways. For example, the outcome generator **931** conduct a random trial having a specified probability of success to determine whether symbols should be awarded. In the illustrated embodiment, the local score module **935** monitors displayed symbols of the game outcome to determine whether it includes any symbols which are to be accumulated towards the local score. There may be, for example, a plurality of different symbols which are accumulated. If symbols are accumulated, the symbol accumulator **935** updates the current total of accumulated symbols stored as part of score data **943** in memory **944**. In another embodiment, rather than symbols being accumulated directly from the displayed outcome, they may be awarded based on game rules **841**—e.g. a certain game outcome such as a symbol combination results in the award of a particular symbol, a time elapses, a turnover occurs etc.

[0100] In the embodiment, a total of symbols is accumulated by the local score module **935** until an aggregation event occurs. The game controller **920** comprises an aggregation event monitor **937** which monitors for the aggregation event. In the embodiment, the aggregation event is also derived from the game outcome, for example, the occurrence of an aggregation symbol. However, persons skilled in the art will appreciate that other aggregation events may be employed in other embodiments such as a certain number of games being played, a certain turnover being achieved, a random trial being carried out to determine whether to aggregate symbols or an aggregation signal being received from the award controller. Persons skilled in the art can derive other accumulation events from trigger events used to trigger a feature or secondary game. When the aggregation event occurs, the local score module **937**, advises the communication module **933** which communicates data representing the local score for each symbol via communication interface **950** to the award controller **150**. The aggregation event monitor **937** also causes local score module **935** to update the stored data to reflect that the symbols have been communicated, for example by resetting the totals stored in memory **940** to zero.

[0101] Award Controller and its Operation within the Gaming System

[0102] Referring to FIG. **6** there is shown further detail of the award controller **150**. From FIG. **6** it will be apparent that award controller **150** is in data communication with a communal display **160** on which the aggregate score in the form current symbol totals, and optionally the designated number of symbols required for a linked game prize award to be made, can be displayed to the players playing the bank of gaming machines **10** shown in FIG. **1**. In other embodiments, the totals could be displayed on the respective top boxes **26** of the individual gaming machines **10**, rather than being displayed on a communal display **160**, or in addition to such a display.

[0103] Referring to FIG. **6**, the constitution of the award controller **150** is similar to that of the gaming device illustrated in relation to FIGS. **2** to **4** and **9** in that it has a processor **151** arranged to implement award controller based on program code stored in memory **152** and a display driver **154** for driving the display **160**. The award controller **150** also includes a communication interface **153** which is designed to enable the processor **151** to communicate with each of the gaming devices **10**.

[0104] Persons skilled in the art will appreciate the above components are the core components for implementing a linked game but other components may be present in a award controller. Persons skilled in the art will appreciate that the implementation of the award controller is analogous to the implementation of bonus and/or controllers in existing gaming systems and reference may be made to such bonus controllers for further details of implementation. Indeed, in one embodiment, the award controller may be a modified jackpot controller.

[0105] FIG. **7** is a functional block diagram of the award controller **150** which shows that the processor **151** implements a number of modules in a similar manner to the processor of the gaming device shown in FIG. **9** by executing program code stored in memory **152**. Data communications interface **153** receives communications from individual ones of gaming machines **10** including data identifying the gaming machine and local score data representing the symbols that gaming machine has accumulated and is communicating in response to an aggregation event. In this embodiment, individual machines communicate local score data to the award controller in response to individual aggregation events occurring—i.e. the aggregation events are associated with individual machines **10** because they occur at those machines **10**. In other embodiments, a single event may correspond to aggregation events associated with each participating gaming machines **10**.

[0106] After receiving the local score data, aggregate score module **701** updates score data **711** and updates the display (via display controller **704**) to show the new aggregate score. Award evaluator **702** determines based on game rule data **710** whether the accumulated score for any of the symbols (there may be one or more symbol totals) corresponds to a prize award. For example, the totals corresponding to awards may be preset in memory **152**. In another embodiment, the totals may be set (for example, by being randomly determined within allowable ranges) when the game is initiated and after an award has been made. When award evaluator **702** determines that an award is to be made, the award is advertised on display **160** under control of display controller **704** and the award module **703** is initiated to make the award to the relevant gaming machine, for example, by communicating an amount of credits to be added to the credit meter of the gaming machine. The relevant aggregate symbol score is also reset.

[0107] The method of the embodiment is summarised in FIG. **8** which shows that the method **800** involves generating

810 game outcomes at individual gaming devices, making an awarding **820**, such as of one or more symbols, if the relevant game rules are satisfied. Keeping **830** a score of any awarded symbols at individual gaming devices. It is determined **840** whether an aggregation event **840** has occurred. If so, data representing the score of awarded symbols is sent **850** to the award controller which determines **860** whether a designated aggregate score has been reached and makes **870** an award if necessary.

[0108] Further aspects of the method will be apparent from the above description of the gaming system. Persons skilled in the art will also appreciate that the method could be embodied in program code. The program code could be supplied in a number of ways, for example on a tangible computer readable medium, such as a magnetic or optical disc or a memory. The program code could also be transmitted, e.g. from a server computer.

[0109] Persons skilled in the art will appreciate that there may be variation on the above embodiments. For example, in some embodiments, symbol data may be sent periodically to the award controller **150**, for example after, or near the end of, every game, such that the aggregation event is the end of the game. As discussed above, in some embodiments aggregation events may be used to cause all participating gaming machines **10** to communicate accumulated symbol data. For example, after receiving accumulated symbol data from one gaming machine, the award controller may request accumulated symbol data from each other machine. In another example, the award controller may initiate the accumulation of symbol data and request each gaming machine to supply their accumulated symbol data, for example it may randomly determine that the data is to be aggregated, thereby creating aggregation events for each gaming machine. The total(s) for the relevant gaming machine(s) are reset to an initial value (e.g. zero) once the symbols have been accumulated into the aggregate total for the symbol.

[0110] The number and type of symbols to be awarded at each step can also follow any suitable rule, for example:

[0111] the number is determined by the triggering event (e.g. 3 hats on a pay line accumulates 1 hat), the number is related to the amount bet at the time of the trigger (e.g. player bets a total of 10 credits and the trigger is 3 hats anywhere in the window, the accumulated number is 10 hats), and the number is random (e.g. when there are 3 hats on a pay line, the gaming device uses the RNG to determine that 5 hats will be accumulated),

[0112] Eligibility for participating in the linked game and receiving the awards can follow the usual rules for eligibility—e.g. a player is eligible when they have placed a qualifying bet, have an outcome on a machine, etc. The awards may be fixed or accumulate in response to play of the gaming machine. In one embodiment, the awards are a plurality of jackpot pools and each jackpot pool has specific symbol(s) associated with it.

[0113] In another embodiment, points are awarded instead of symbols. Such points may be awarded in multiple categories.

Example 1

[0114] Predefined Symbols to be Accumulated at Controller

[0115] Three gaming machines **10** are connected to an award controller **150**. The machines **10** are identified as machines A, B, C. All machines contribute 5% of turnover to a prize pool which is accounted for by the controller. The prize pool is allocated to three distinct prize levels.

[0116] To win a prize level, a machine needs to send information to the controller **150** which meets predefined rules to award the prize.

[0117] If the information sent to the award controller does not meet the predefined rules, the information sent to the controller is retained and is used to evaluate the next prize entitlement.

[0118] For each machine a plurality of symbols can be awarded by the outcome generator **931** conducting random trials using the random number generator **934**:

[0119] a hat symbol is awarded with probability 1 in 100 for every credit played, a star symbol is awarded with probability 1 in 500 for every credit played, and a smile symbol is awarded with probability 1 in 1000 for every credit played.

[0120] In this example, the awarding of the symbols is accumulated on the screen and displayed to the player.

[0121] In addition, for each machine at each spin, there is a 1 in 100 chance that a key symbol will be awarded by the outcome generator **931**—i.e. this probability based on games played not turnover.

[0122] When the key symbol is awarded and when the game currently being played has completed, the machine **10** plays an animation and a tune and sends the information about the accumulated symbols to the controller **150**. This helps build a sense of suspense for a player that a group of symbols has been aggregated and then the player has a "shot" at the prize. Hopefully, a player will have a shot at a prize before another player.

[0123] The controller **150** has an aggregate score in the form of count of the number of symbols which have already been sent to the controller. When the number of hats accumulated in the controller equals 10, the minor jackpot is won, when the number of stars accumulated in the controller equals 5, the major jackpot is won and when the number of smiles accumulated in the controller equals 5 the maxi jackpot is won. In this case, the accumulated symbols are displayed on display **160** so that they can be seen by players on all the machines **10** connected to the controller **150**.

[0124] When a gaming machine sends data to the controller, the visual display of the score is updated and the controller determines if the number of displayed symbols has reached the required number to award a prize. If the target number is reached, the display of the total stops accumulating and the prize is paid. Then any remaining symbols are added to the display which will start the score again. If the target number is not reached, then the display retains the display of the accumulated symbols.

[0125] Assume the controller has already accumulated 5 hats, 2 stars and 1 smile symbol. Player A at machine A plays the machine and has accumulated a local score at the machine of 3 hats and 2 stars when the key is won. The machine sends the information to the controller and the display at the controller increments to 8 hats, 4 stars and 1 smile. No prize is awarded.

[0126] Player B is playing machine B and when the key is won, the machine V sends 1 hat, 2 stars and 1 smile symbol to the controller. The controller **150** updates the number of hats to 9, the number of stars to 5 and the major jackpot is awarded. The score of stars is then reduced to 0 to show the prize being

awarded and then incremented to 1 because there is a left over star, and the number of smile symbols is incremented to 2.

Example 2

[0127] Mystery Number of Symbols to be Accumulated at Controller

[0128] As per the above example, however the number of symbols to be accumulated to win a prize is not known and not advertised to the player.

[0129] The controller **150** randomly selects the number and/or combination of symbols required to win a jackpot with RNG **705** based on game rules **710**. When a machine **10** sends data related to a local score of symbols to the controller **150**, the controller **150** adds this score to the aggregate score and compares the totals with the randomly selected number/combination. After a jackpot is awarded, the controller resets the number/combination required to win the jackpot.

[0130] The game rules **710** set the conditions for random selection **705** of the number/combination of symbols which will provide the winning combination. In this example, minor jackpots require only hats, major jackpots require a combination from 2 of hats, stars and smiles, maxi jackpots require combinations from all 3 symbols.

[0131] The award controller **150** determines (using RNG **705**):

[0132] Minor jackpot is won with 10 hats, Major jackpot is won with 15 hats and 2 stars Maxi jackpot is won with 10 hats, 5 stars and 1 smile

[0133] Time T**1**—As above, machine A accumulates symbols and then hits the key trigger. Machine A sends data to the controller **150**. The controller **150** has no display of accumulated symbols but stores the current count if symbols as aggregate score data **711** in memory **152**. After machine A has communicated data, the aggregate score is that 8 hats, 4 stars and 1 smile have been accumulated.

[0134] The award evaluator **702** of controller **150** compares the count with the previously randomly determined winning conditions and determines that no win is payable.

[0135] Time T**2**—Machine B accumulates symbols and then hits the key trigger. Machine B sends data to the controller. The count now stands at 9 hats, 6 stars, 2 smiles. The award evaluator **702** of controller **150** compares the count with the winning conditions and determines that no win is payable.

[0136] Time T**3**—Machine A accumulates symbols of 1 hat and 1 star and hits the key symbol. Machine A sends data to the controller **150**. The count now stands at 10 hats, 7 stars, 2 smiles. The jackpot controller compares the count with the winning conditions and determines that a minor jackpot is payable. The prize is awarded with appropriate visual and auditory rewards. The aggregate score of symbols is now reduced to 0 hats, 7 stars and 2 smiles. The controller **150** now randomly selects a new condition for winning the minor jackpot. This is now set at 15 hats.

[0137] Time T**4**—Machine C accumulates 5 hats and 1 smile, and the key is won. Machine C sends data to the controller. The count now stands at 5 hats, 7 stars and 3 smiles. The controller compares this to the winning condition and no prize is paid.

[0138] Time T**5**—machine B accumulates 10 hats, 2 stars and 1 smile. The key is won and machine B sends data to the controller **150**. The count is updated to 15 hats, 9 stars and 4 smiles. The controller compares the count to the award conditions. This meets the conditions for 2 of the awards. The controller **150** pays the larger prize so the major jackpot is paid. The count is reset to 0 hats, 7 stars and 4 smiles. The controller **150** determines the new trigger point for the maxi jackpot as 5 stars and 2 smiles. It will be noted that the accumulated count already meets that requirement, so that jackpot will be won by the next machine to send data to the controller **150** (unless a higher valued jackpot is won).

[0139] An advantage of this example, is that if a machine **10** gets the trigger symbol (aggregation event) with no symbols accumulated, the player still win a prize—i.e. it is not necessary to have accumulated symbols on the local machine in order to that the aggregation event provide a chance of winning The final example shows why that condition is desirable.

[0140] 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.

[0141] For example, the award controller **150** is shown in FIG. **1** as a separate entity to the gaming devices **10**. In an alternative embodiment, it could be provided by one of the gaming devices incorporating a server module arranged to implement the award controller in the manner described in Australian patent application 2008205413 filed 13 Aug. 2008.

[0142] In some embodiments, it may be desirable to have player interaction to send the symbols to the controller **150**. In such embodiments, the player may be allowed to hold their local score until such time as they believe it likely that it will contribute to a win. Alternately, the player may not have a choice as to whether to communicate their symbols and is required to press the button to increase their involvement.

[0143] In some cases, where the player can see how many symbols are accumulated on their machine and how many are required, the player may be able to determine how many symbols are sent to the controller so that they win but do not leave the controller with added symbols. In other examples, there may be limits on the number of symbols which can be communicated from a local machine at one time, for example a player may accrue 12 star symbols but only communicate **10**. This may be advantageous in cases where the number and/or combination of symbols required for a prize award is advertised. In such an example, individual gaming machines can be configured to communicate no more than a number of symbols required to win the prize.

[0144] It will be appreciated that other techniques can be used to keep score, for example points may be awarded and the awarded score can be represented in a number of different ways, for example, graphically by a gauge. In another embodiment, the number of symbols awarded on local machines may not be an integer, for example, the total may stand at 1.53 star symbols. In such an example, the gaming machine may be arranged to only communicate whole symbols to the controller—e.g. such that if 1.53 symbols are accumulated 1 symbol is communicated and a balance of 0.53 symbols remains.

[0145] It will also be appreciated that the local scores for individual gaming devices need not be stored at the gaming devices. This is particularly applicable to a server based gaming arrangement, where the award controller may be implemented by a server within the gaming system and may maintain individual scores for each gaming device as well as an aggregate score.

[0146] 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.

[0147] 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.

1. A method of gaming comprising:
keeping a score of at least one award for each participating gaming device of a plurality of gaming devices;
updating the respective scores based on play of the respective gaming devices;
keeping an aggregate score of each at least one award;
updating the aggregate score in response to score aggregation events associated with the respective gaming devices, each update based at least on a current score of the individual gaming device with which the respective aggregation event is associated;
determining, in response to each aggregation event, whether to make a prize award based on a current aggregate score and a prize award score to the player of the gaming device with which the aggregation event is associated.

2. A method as claimed in claim **1**, wherein each award comprises a symbol, and the score for each gaming device comprises a current total of awarded symbols for the respective gaming device.

3. A method as claimed in claim **2**, comprising keeping separate scores for a plurality of different symbols for each gaming device.

4. A method as claimed in claim **1**, wherein updating each respective score comprises resetting the respective score to an initial value upon the aggregate score being updated.

5. A method as claimed in claim **1**, comprising determining during each play of each gaming device, whether to make the at least one award for which the score is kept.

6. A method as claimed in claim **5**, wherein the determination comprises conducting at least one random trial for the award.

7. A method as claimed in claim **5**, wherein the determination comprises evaluating a game outcome generated during play of the gaming device to determine whether it corresponds to the at least one award.

8. A method as claimed in claim **1**, wherein each award is of points, and the score comprises a total of awarded points.

9. A method as claimed in claim **1**, wherein each score aggregation event comprises an occurrence of an aggregation symbol during play of the respective gaming devices.

10. A method as claimed in claim **1**, wherein the score aggregation event comprises carrying out a play of a game with an individual gaming device.

11. A method as claimed in claim **1**, comprising keeping the aggregate score at an award controller in data communication with each of the gaming devices.

12. A method as claimed in claim **11**, comprising determining whether to make the prize award at the award controller.

13. A method as claimed in claim **1**, comprising keeping scores for respective gaming devices at the respective gaming devices.

14. A method as claimed in claim **1**, wherein determining whether to make an award includes determining whether the current aggregate score is or exceeds a prize award score.

15. A method as claimed in claim **14**, wherein there are a plurality of prize awards associated with respective ones of the awards, and wherein only one of the awards may be made in response to an aggregation event such that if an aggregation event results in two or more aggregate scores reaching or exceeding a prize award score, only one of the prize awards is made, whereby the next aggregation event may result in the award of another prize award without the aggregate score associated with that prize award increasing.

16. A gaming system comprising:
a plurality of gaming devices, each individual gaming device arranged to keep a score of at least one award and update the score based on play of the gaming device; and
an award controller in data communication with the gaming devices, arranged to:
keep an aggregate score of each at least one award;
update the aggregate score in response to score aggregation events associated with the respective gaming devices, each update based on a current score of the individual gaming device with which the respective aggregation event is associated, and
determine, in response to each aggregation event, whether to make a prize award based on a current aggregate score and a prize award score to the player of the gaming device with which the aggregation event is associated.

17. A gaming system as claimed in claim **16**, wherein each award comprises a symbol, and the score for each gaming device comprises a current total of awarded symbols for the respective gaming device.

18. A gaming system as claimed in claim **17**, wherein each gaming device is arranged to keep separate scores for a plurality of different symbols and the award controller keeps an aggregated score for each different symbol.

19. A gaming system as claimed in claim **16**, wherein each game device is arranged to update the score, in part by resetting the respective score to an initial value upon the aggregate score being updated.

20. A gaming system as claimed in claim **16**, where each gaming device is arranged to determine during each play of the respective gaming device, whether to make the at least one award for which the score is kept.

21. A gaming system as claimed in claim **20**, wherein the determination comprises conducting at least one random trial for the award.

22. A gaming system as claimed in claim **20**, wherein the determination comprises evaluating a game outcome generated during play of the gaming device to determine whether it corresponds to the at least one award.

23. A gaming system as claimed in claim **16**, wherein each award is of points, and the score and aggregate score comprise a total of points.

24. A gaming system as claimed in claim **16**, wherein each score aggregation event comprises an occurrence of an aggregation symbol during play of the respective gaming devices.

25. A gaming system as claimed in claim **16**, wherein the score aggregation event comprises carrying out a play of a game with an individual gaming device.

26. A gaming system as claimed in claim **16**, wherein the award controller determines whether to make an award by determining whether the current aggregate score is or exceeds a prize award score.

27. A gaming system as claimed in claim **26**, wherein there are a plurality of prize awards associated with respective ones of the awards, and the award controller is arranged to make only one of the awards in response to a specific aggregation event such that if an aggregation event results in two or more aggregate scores reaching or exceeding a prize award score, whereby the next aggregation event may result in the award of another prize award without the aggregate score associated with that prize award increasing.

28. A gaming system as claimed in claim **16**, wherein the award controller is a jackpot controller.

29. An award controller for a gaming system, the award controller arranged to:

keep an aggregate score of at least one award;

update the aggregate score in response to score aggregation events associated with respective ones of a plurality gaming devices, each update based on a current score of awards made at the individual gaming device with which the respective aggregation event is associated; and

determine, in response to each aggregation event, whether to make a prize award to the player of the gaming device with which the aggregation event is associated, based on a current aggregate score and a prize award score.

30. An award controller as claimed in claim **29**, wherein each award comprises a symbol, and the aggregate score for comprises a current total of aggregated symbols.

31. An award controller as claimed in claim **30**, arranged to keep separate aggregate scores for each of a plurality of different symbols.

32. An award controller as claimed in claim **29**, wherein each award is of points, and the aggregate score comprises a total of points.

33. An award controller as claimed in claim **29**, arranged to determine whether to make an award by determining whether the current aggregate score is or exceeds a prize award score.

34. An award controller as claimed in claim **33**, wherein there are a plurality of prize awards associated with respective ones of the awards, and the award controller is arranged to make only one of the awards in response to a specific aggregation event such that if an aggregation event results in two or more aggregate scores reaching or exceeding a prize award score, whereby the next aggregation event may result in the award of another prize award without the aggregate score associated with that prize award increasing.

35. A method as claimed in claim **1**, further comprising executing computer program code.

36. A method as claimed in claim **35**, further comprising storing said computer program code in a tangible computer readable medium.

37. A method as claimed in claim **1**, further comprising transmitting said computer program code.

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