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(54) Gaming black box

(57) An electronic gaming system comprises if applicable an online system, at least one gaming machine (107, 207, 307,407, 507) with a gaming processing unit (105, 205, 305, 405, 505), loudspeakers (102, 202, 302, 404, 504), at least one screen and/or touch screen (101, 201, 301, 401, 402, 501, 502) and if applicable one or more cameras (408). The gaming processing unit (105, 205, 305, 405, 505) or a signal mixing unit (509) generates video signals (105a, 205a, 305a, 405b, 405d, 509b, 509d) to be displayed on the screens or/ touch screens and gaming signals (105b, 205b, 305b, 405e, 509e) to be outputted by a loud speaker (102, 202, 302, 404, 504).

The gaming processing unit generates meter and status information (105d, 205d, 305d, 405f, 505c). The touch screen generates touch signals (101b, 201b, 301b, 401a, 402a, 501a, 502a) representative for the position and/or duration of a touch on the touch screen by a user. There is provided a storage medium (103, 203, 303, 403, 503) adapted to store the video signals, which are presented at the said screens or touch screens (105a, 205a, 305a, 405b, 405d, 509b, 509d), the camera video signal (408a) and optionally at least one of the gaming audio signals (105b, 205b, 305b, 405e, 509e), the meter and status information (105d, 205d, 305d, 405f, 505c) and/or the touch signals (101b, 201b, 301b,401a,402a,501a,502a).

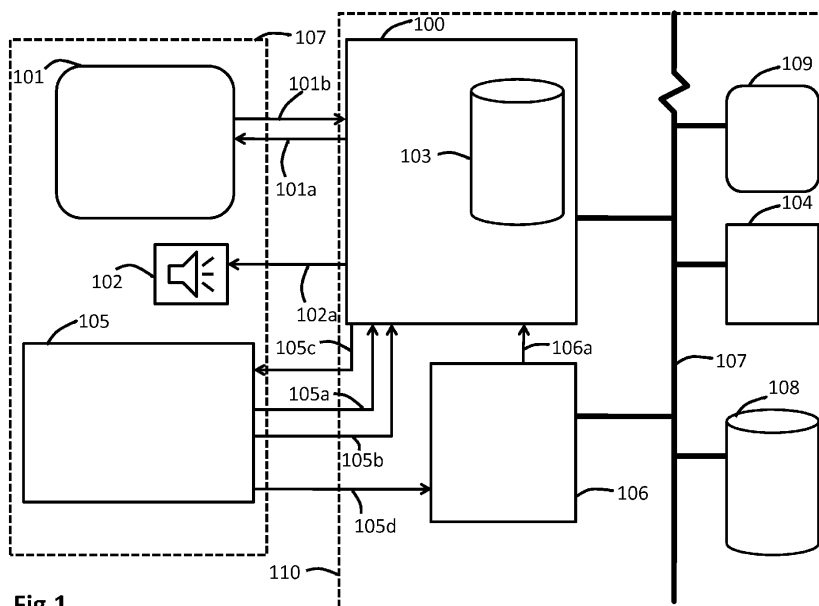


Fig.1

## Description

**[0001]** The present invention relates to an electronic gaming system at least one gaming machine with a gaming processing unit, at least one display and/or at least one touch input interface generating touch signals indicative for user touch movements, wherein the gaming processing unit generates gaming video signals, gaming audio signals and meter and status information, wherein the at least one display is provided with video signals comprising the gaming video signals, characterized by a storage medium adapted to store the video signals provided to the at least one display.

**[0002]** An online system comprising a plurality of data management devices interconnected by means of a data bus is described in the patent application US 2006/0030409 A1.

**[0003]** Embodiments for the share of the audio/video/touch system components between gaming machine and online system are described in W003030110 and US2009176568.

**[0004]** For the communication between gaming machines and an online system there exist standards, which can be found under the link <http://www.gamingstandards.com>, see e.g. Slot Accounting System Protocol Version 6.02, 11/15/2005).

**[0005]** The problem to be solved by the present invention is to provide enhanced monitoring and surveillance means for electronic gaming machines in electronic gaming systems.

**[0006]** State of the art is the reconstruction of the gaming result from saved meter information and saved reel start and reel end positions.

**[0007]** Particularly, the enhanced monitoring and surveillance means shall provide the following features:

- Monitoring and replay features that allow to play back what had actually been shown on the screen of the gaming machine, without the necessity for reconstruction of video signals.
- Monitoring the interaction of the players and personnel with the gaming machine.
- Replaying individual games that had been played in the past, for regulatory and promotional purposes, either directly on the screen of the gaming machine, or on a remote station, or on external screens, and preferably also in internet applications.
- Recordal of changes in configuration of the gaming machine.
- Possibility of live remote viewing of the video stream shown on the screen of the gaming machine for security monitoring purposes.
- Documentation of meter and status information in conjunction with the video stream shown on the screen(s)

**[0008]** The present invention solves the above problems by providing an electronic gaming system with the

features of claim 1.

**[0009]** Further features and advantageous embodiments of the invention are set out in the claims and the following specification.

**[0010]** The electronic gaming system according to the present invention comprises at least one gaming machine with a gaming processing unit, at least one display and/or at least one touch input interface generating touch signals indicative for user touch movements. The gaming processing unit generates gaming video signals, gaming audio signals and meter and status information. The at least one display is provided with video signals comprising the gaming video signals. A storage medium is provided being adapted to store the video signals provided to the at least one display.

**[0011]** The monitoring and replay features of the present invention are enhanced, when the storage medium is further adapted to store at least one of the audio signals, camera video signals, the meter and status information and/or the touch signals.

**[0012]** For the sake of reliable, cost-effective and space-reducing hardware design it is suggested to configure the at least one display as a touch screen. By doing so it is possible to integrate the touch input interface in the touch screen generating touch signals representative for the position and/or duration of user touch movements on the touch screen.

**[0013]** According to one aspect of the present invention the gaming processing unit or the video/audio mixing unit feeds the video signals which are presented on the displays or touch screens and/or the video signals from cameras and/or the audio signals and/or the meter and status information and/or the touch signals to the storage medium.

**[0014]** According to a second aspect of the present invention the gaming processing unit transmits the video signals which are presented on the screens or touch screens, the audio signals and the meter and status information to a recorder, and the touch screen transmits the touch signals to the recorder, wherein the recorder controls the storage medium and feeds the said signals and information to the storage medium. For the sake of easy interconnection and control it is suggested that the recorder forwards the gaming video signals to the touch screen, the gaming audio signals to a loudspeaker and the touch signals to the gaming processing unit.

**[0015]** The recorder is either arranged within the gaming machine, or, alternatively, the recorder is arranged remote from the gaming machine with an online data connection to the gaming processing unit and the touch screen.

**[0016]** In another aspect of the invention the storage medium is arranged within the gaming machine, which is particularly advantageous for stand-alone gaming machines. Alternatively, the storage medium may be arranged remote from the gaming machine, in order to hinder tampering.

**[0017]** In order to process signals from both a gaming

processing unit and an online system in one embodiment of the present invention there is provided a signal mixing unit that receives gaming video signals and gaming audio signals from the gaming processing unit as well as touch signals from the touch input interface, wherein the signal mixing unit generates video signals containing the gaming video signals and provides said video signals to the at least one display. The signal mixing unit feeds the video signals, the gaming audio signals and/or the touch signals to the storage medium. Further, the signal mixing unit transmits the video signals and the gaming audio signals to a recorder, and the touch input interface transmits the touch signals to the recorder, wherein the recorder controls the storage medium and feeds the said signals and information to the storage medium. Preferably, an online system remotely controls the signal mixing unit and optionally provides the signal mixing unit with online video and audio signals for mixing them with the gaming video signals to a combined video signal being fed to the at least on display.

**[0018]** For enhanced surveillance purposes the present electronic gaming system comprises at least one camera that monitors interactions of users with the gaming machine and optionally the gaming machine or parts thereof, wherein the camera video signals are stored in the storage medium.

**[0019]** In order to reduce the amount of data to be stored in the storage medium it is proposed that during idle times the data stored in the storage medium are compressed by either the gaming processing unit or the recorder. Various state of the art data, video and/or audio compressing algorithms may be employed which are known to those skilled in the art.

**[0020]** According to another aspect of the invention a slot machine interface is arranged that receives the meter and status information from the gaming processing unit, wherein, if a recorder is provided, the slot machine interface forwards the meter and status information to the recorder.

**[0021]** For allowing monitoring and replaying what had actually been shown on the screen of the gaming machine the content of the storage medium is online retrievable by a remote replay station via a data network connection. This offers even the possibility for replaying individual games.

**[0022]** For regulatory and promotional purposes it is further suggested to provide an external video screen being adapted to receive the gaming video signals via a data network connection.

**[0023]** In order to allow replaying various signals and information synchronously all data stored in the storage means are provided with bookmarks.

**[0024]** For long-term storing and providing redundant backup an archive storage device being adapted to backup and archive data from the storage medium is provided.

**[0025]** By using at least one signal splitter that receives from the gaming processing unit or a signal mixing unit one of a video signal or a gaming audio signal and trans-

mits the received signal to the recorder and either a display or a loudspeaker it becomes possible to output and to record the signals at the same time. The same positive effect of faster signal processing is achieved, when a signal splitter is used that receives from the touch input interface a touch signal and transmits the received touch signal to the recorder and either a gaming processing unit or a signal mixing unit.

**[0026]** The present invention will now be explained in detail by means of explanatory embodiments and with reference to the drawings.

Fig. 1 shows a schematic block diagram of a first embodiment of an electronic gaming system according to the present invention.

Fig. 2 shows a schematic block diagram of a second embodiment of an electronic gaming system according to the present invention.

Fig. 3 shows a schematic block diagram of a third embodiment of an electronic gaming system according to the present invention.

Fig. 4 shows a schematic block diagram of a fourth embodiment of an electronic gaming system according to the present invention.

Fig. 5 shows a schematic block diagram of a fifth embodiment of an electronic gaming system according to the present invention.

Fig. 6 shows a possible freeze image of a recording according to the present invention.

**[0027]** Now referring to Fig. 1 a first embodiment of the electronic gaming system will be explained. This electronic gaming system comprises a gaming machine 107 and an online system 110; both are interconnected with each other. The gaming machine 107 comprises a gaming processing unit 105 (which in this specification will sometimes be referred to as gaming CPU 105), a display configured as a touch screen 101, and a loudspeaker 102. The gaming processing unit 105 generates gaming video signals 105a to be displayed on the touch screen, gaming audio signals 105b to be outputted by the loudspeaker 102 and meter and status information 105d which will be explained in more detail below. The touch screen 101 generates touch signals 101b representative for the position and/or duration of a touch on the touch screen 101 by a user. All these signals are continuously generated during the whole operating time of the gaming machine 107.

**[0028]** The online system 110 comprises a slot machine interface 106 that receives the meter and status information 105d from the gaming CPU 105. The meter and status information 105d comprises all events on the gaming machine 107 such as like game start/end signal, door open/close indication, enter setup menu, changed options, handpay, jackpot hit, tilt, money transfers suspicious gaming activities and the values of the important meters (as for example: IN, OUT, TICKET IN, TICKET OUT, BILL IN, COIN IN, COIN OUT, JACKPOT, CREDIT

CANCEL). The meter and status information 105d may be transmitted as described in standards (e.g. Slot Accounting System Protocol Version 6.02, 11/15/2005). The online system 110 further comprises a recorder 100 and a storage medium 103 controlled by the recorder 100. The recorder 100 receives the gaming video signal 105a and the gaming audio signal 105b from the gaming CPU 105. The recorder 100 receives the touch signal 101b from the touch screen 101. The recorder forwards the received gaming video signal 105a to the touch screen 101, see signal 101a. The recorder 100 also forwards the received gaming audio signal 105b to the loudspeaker 102, see signal 102a. Further, the recorder 100 forwards the received touch signal 101b to the gaming CPU 105, see signal 105c. The slot machine interface 106 is adapted to forward the received meter and status information 105d to the recorder 100, see signal 106a.

**[0029]** The recorder 100 is adapted to store the following signals or combination of signals in the storage medium 103:

- Video signal (101a)
- Video signal (101a) + audio signal (102a)
- Video signal (101a) + audio signal (102a) + touch signal (101b)
- Video signal (101a) + touch signal (101b)

**[0030]** The online system 110 further comprises a remote replay station 104, optionally an archive storage 108 and optionally an external screen 109. The remote replay station 104, the archive storage 108 and the external screen 109 are interconnected with the slot machine interface 106, the recorder 100 and the storage medium 103 by means of a data network 107.

**[0031]** The above mentioned signals, i.e. the video signal 101a, the audio signal 102a and/or the touch signal 101b are recorded in the storage medium 103 during the whole operating time of the gaming machine 107 under control of the recorder 100. During idle time the data size of the data stored in the storage medium 103 can be minimized under control of the recorder 100 by using data/video/audio compression methods.

**[0032]** The meter and status information 105d forwarded (signal 106a) by the slot machine interface 106 to the recorder 100 is stored in the storage medium 103 and/or is used to generate time synchronized book marks on the records together with the relevant event information. Alternatively, the event information is overlaid on the video signal during the storing process. So if one wants to see e.g. the last three games, he has to go back three 'game-begin'-bookmarks in the record.

**[0033]** The recorder 100 is connected to the network 107. Via the network 107 the signal and information records can be

- transferred or copied to the archive 108 to save the information over a longer period
- replayed on the external screen 109 for promotional

reasons

- replayed on the remote replay station 104.

**[0034]** Now reference is made to Fig. 2 which shows a second embodiment of the electronic gaming system according to the present invention. This embodiment includes a gaming machine 207 comprising a gaming CPU 205, a display configured as a touch screen 201, a loudspeaker 202, a recorder 200 and a storage medium 203. Like in the first embodiment the gaming CPU 205 generates a gaming video signal 205a and transmits it to the recorder 200, which forwards the gaming video signal, see signal 201a, to the touch screen 201. Further, the gaming CPU 205 generates a gaming audio signal 205b and transmits it to the recorder 200, which forwards the gaming audio signal, see signal 202a, to the loudspeaker 202. The gaming CPU 205 also generates meter and status information 205d, for instance in the format of the SAS (slot accounting system)- protocol, and transmits it to the recorder 200. The touch screen 201 generates a touch signal 201b and transmits it to the recorder 200, which forwards it to the gaming CPU 205, see signal 205c.

**[0035]** The recorder 200 is adapted to store the following signals or combination of signals in the storage medium 203:

- Video signal (201a)
- Video signal (201a) + audio signal (202a)
- Video signal (201a) + audio signal (202a) + touch signal (201b)
- Video signal (201a) + touch signal (201b)

**[0036]** In this embodiment the recorder 200 and the storage medium 203 are arranged within the gaming machine 207. The signals generated by the gaming CPU 205 and if applicable the touch screen 201 are recorded by the recorder 200 in the storage medium 203 during the whole operating time of the gaming machine 207. During idle time the data size of the data stored in the storage medium can be minimized under control of the recorder 200 by applying data/video/audio compression methods.

**[0037]** Events on the gaming machine 207 like game start/end, door open/close, enter setup menu, changed options, handpay, jackpot hit, tilt, money transfers or suspicious gaming activities are communicated by the gaming CPU 205 within the meter and status information 205d and can be sent to an online system (not shown) like in the first embodiment of the electronic gaming system. The meter and status information 205d containing event information is transmitted to the recorder 200, which uses it to generate time synchronized bookmarks on the records with the relevant event information, or the event information is overlaid on the video signals.

**[0038]** Now reference is made to Fig. 3 which shows a third embodiment of the electronic gaming system according to the present invention. This embodiment in-

cludes a gaming machine 307 comprising a gaming CPU 305, a display configured as a touch screen 301, a loudspeaker 302 and a storage medium 303. In contrast to the first and second embodiment, in this third embodiment the gaming CPU 305 accomplishes, among others, all tasks of the dedicated recorder of the first and second embodiment. The gaming CPU 305 generates a gaming video signal 305a, transmits it to the touch screen 301 and additionally feeds it to the storage medium 303. Further, the gaming CPU 305 generates a gaming audio signal 305b, transmits it to the loudspeaker 302 and additionally feeds it to the storage medium 303. The gaming CPU 305 also generates meter and status information 305d, for instance in the format of the SAS (slot accounting system)- protocol, and feeds it to the storage medium 303. The touch screen 301 generates a touch signal 301b and transmits it to the gaming CPU 305 which, in turn, feeds it to the storage medium 303.

**[0039]** Hence, the gaming CPU 305 manages the storing the following signals or combination of signals in the storage medium 303:

- Video signal (305a)
- Video signal (305a) + audio signal (305b)
- Video signal (305a) + audio signal (305b) + touch signal (301b)
- Video signal (305a) + touch signal (301b)

**[0040]** In this embodiment the storage medium 303 is arranged within the gaming machine 307. The signals generated by the gaming CPU 305 and the touch screen 301 are recorded by the recording function of the gaming CPU 305 in the storage medium 303 during the whole operating time of the gaming machine 307. During idle time the data size of the data stored in the storage medium 303 can be minimized under control of the gaming CPU 305 by applying data/video/audio compression methods.

**[0041]** Events on the gaming machine 307 like game start/end, door open/close, enter setup menu, changed options, handpay, jackpot hit, tilt, money transfers or suspicious gaming activities are recognized by the gaming CPU 305. On the basis of these recognized events the gaming CPU 305 generates the meter and status information 305d, which can be sent to an online system (not shown) like in the first embodiment of the electronic gaming system by connecting the gaming CPU 305 to a data network of the online system. The recognized events are used by the gaming CPU 305 to generate time synchronized bookmarks on the records with the relevant event information, or the event information is overlaid on the video signals stored in the storage medium 303.

**[0042]** Now reference is made to Fig. 4 which shows a fourth embodiment of the electronic gaming system according to the present invention. This embodiment includes a gaming machine 407 comprising a gaming CPU 405, two displays configured as touch screens 401 and 402, a loudspeaker 404 and a recorder 400 with a storage

medium 403. In contrast to the previous embodiments, in this fourth embodiment the video signals 405b and 405d, the audio signal 405e and touch signals 401a and 402a are sent from the gaming CPU 405 or touch screens 401 and 402 to splitters 406 and then parallel 406a - 406e to the recorder 400 and the video signals 401b and 402b to the screens 401 and 402 and respectively the touch signals 405a and 405c to the gaming CPU 405. The gaming CPU 405 feeds additionally the meter and status information 405f to the recorder 400. Further, the gaming CPU 405 generates a gaming audio signal 405e, transmits it to a splitter 406 which sends the signal 404a to the loudspeaker 404 and parallel to the recorder 400. In contrast to the previous embodiments, in this embodiment a camera 408 records what happens at the button panel 409 and sends the video signal to the recorder 400. **[0043]** The recorder 400 is adapted to store the following signals or combination of signals in the storage medium 403:

- Video signal (405b)
- Video signal (405d)
- Video signal (408a)
- All combinations of the video signals (405b, 405d and 408a)
- All combinations of the video signals (405b, 405d and 408a)+ audio signal (405e)
- All combinations of the video signals (405b, 405d and 408a) + audio signal (405e) + touch signals (401a and/or 402a)
- All combinations of the video signals (405b, 405d and 408a) + touch signals (401a and/or 402a)

**[0044]** In this embodiment the recorder 400 and the storage medium 403 are arranged within the gaming machine 407. The signals generated by the gaming CPU 405 and if applicable the touch screens 401 and 402 are recorded by the recorder 400 in the storage medium 403 during the whole operating time of the gaming machine 407. During idle time the data size of the data stored in the storage medium can be minimized under control of the recorder 400 by applying data/video/audio compression methods.

**[0045]** Events on the gaming machine 407 like game start/end, door open/close, enter setup menu, changed options, handpay, jackpot hit, tilt, money transfers or suspicious gaming activities are recognized by the gaming CPU 405. On the basis of these recognized events the gaming CPU 405 generates the meter and status information 405f, which can be sent to an online system (not shown) like in the first embodiment of the electronic gaming system by connecting the gaming CPU 405 to a data network of the online system. The recognized events are used by the gaming CPU 405 to generate time synchronized bookmarks on the records with the relevant event information, or the event information is overlaid on the video signals stored in the storage medium 403.

**[0046]** Now reference is made to Fig. 5 which shows

a fifth embodiment of the electronic gaming system according to the present invention. This embodiment includes a gaming machine 507 comprising a gaming CPU 505, two displays configured as touch screens 501 and 502, a loudspeaker 504 and an online system 510 comprising a recorder 500 with a storage medium 503. In contrast to the previous embodiments, in this fifth embodiment a signal mixing unit 509, which gets as input all video and audio signals 505a from the gaming CPU 505 and all video and audio signals 508a from the online system processor 508 produces the video signals 509b and 509d and the audio signal 509e which are sent to the splitters 506, which split the video signals 509b and 509d in signals 501b and 502d which are sent to the screens 501 and 502 and parallel the signals 506b and 506d are sent to the recorder 500. Vice versa the touch signals 501a and 502a are sent from the screens 501 and 502 to the splitters 506 and then the touch signals 509a and 509c are sent to the signal mixing unit 509, which produces the touch signals 508b for the online system processor 508 and the touchscreen signals 505b for the gaming CPU 505 in dependence of the screen sharing. The signal mixing unit 509 produces an audio signal 509d which is sent to a splitter 506 from which one signal 504a is sent to the loudspeaker 504 and the second signal 506e is sent to the recorder 500. The gaming CPU 505 feeds additionally the meter and status information 505c to the recorder 500.

**[0047]** The recorder 500 is adapted to store the following signals or combination of signals in the storage medium 503:

- Video signal (509b)
- Video signal (509d)
- 
- All combinations of the video signals (509b and 509d)
- All combinations of the video signals (509b and 509d)+ audio signal (509e)
- All combinations of the video signals (509b and 509d) + audio signal (509e) + touch signals (501a and/or 502a)
- All combinations of the video signals (509b and 509d) + touch signals (501a and/or 502a)

**[0048]** In this embodiment the recorder 500 and the storage medium 503 are arranged within the online system 510. The signals generated by the signal mixing unit 509 and if applicable the touch screens 501 and 502 are recorded by the recorder 500 in the storage medium 503 during the whole operating time of the gaming machine 507. During idle time the data size of the data stored in the storage medium can be minimized under control of the recorder 500 by applying data/video/audio compression methods.

**[0049]** Events on the gaming machine 507 like game start/end, door open/close, enter setup menu, changed options, handpay, jackpot hit, tilt, money transfers or sus-

picious gaming activities are recognized by the gaming CPU 505. On the basis of these recognized events the gaming CPU 505 generates the meter and status information 505c. The recognized events are used by the recorder 500 to generate time synchronized bookmarks on the records with the relevant event information, or the event information is overlaid on the video signals stored in the storage medium 503.

**[0050]** Now reference is made to Fig. 6 which shows a possible freeze image of a recording according to the present invention. The freeze image is in accordance to the embodiment of Fig.4. The region 601 shows the frozen video picture of the gaming screen 402 at the said specific point of time. The region 602 shows the frozen video picture of the top screen 401 at a specific point of time. The region 603 shows the frozen video picture of the camera 408 at the said specific point of time. The region 604 shows time and date information, various meter information and status information at the said specific point of time .

**[0051]** In summary, the electronic gaming system according to the present invention comprises the following features:

- Possibility to record the gaming video signal (as well as other video signals, which are sent from the gaming CPU or the online system to the at least one screen of the gaming machine, the gaming audio signal, and the touch signal in combination with time-synchronized meter and status information, as well as various combinations of the afore-mentioned signals)
- Possibility to record camera video signals
- Use of standard data/video/audio compression
- Data storage under control of a recorder
- Possibility of backup data storage in an external archive storage
- Possibility of replay of past games on the gaming machine
- Possibility of replay of past games on external screens
- Possibility of replay of past gaming sequences on an external remote station
- The system can be combined with screen switching; then the video/audio-signals from the electronic gaming system and/or the video/audio-signals from the online system are stored
- The storage medium can be a flash memory, a direct interfaced storage device, or an embedded PC, or a TCPIP networked stream can be recorded on a server
- Time-synchronized information is recorded, e.g., as bookmarks on the video/audio stream
- Possibility of archiving different event types for different periods (door open events, tilt events, change options events,.....)

**[0052]** The time-synchronized meter and status infor-

mation comprises information about the following events:

- Game start/end
- Door open/close
- Enter setup menu
- Changed options
- Handpay/ jackpot hit
- Tilt
- Money transfers
- Suspicious gaming activities
- Player logon/logoff
- Other significant events
- and values of the following meters: IN-meter
- OUT-meter
- TICKET-IN-meter
- TICKET-OUT-meter
- BILL-IN-meter
- COIN-IN-meter
- COIN-OUT-meter
- JACKPOT-meter
- CREDIT CANCEL-meter
- Other relevant meters

#### Claims

1. An electronic gaming system comprising at least one gaming machine (107, 207, 307, 407, 507) with a gaming processing unit (105, 205, 305, 405, 505), at least one display (101, 201, 301, 401, 402, 501, 502) and/or at least one touch input interface generating touch signals (101b, 201b, 301b, 401a, 402a, 501a, 502a) indicative for user touch movements, wherein the gaming processing unit generates gaming video signals (105a, 205a, 305a, 405a, 505a), gaming audio signals (105b, 205b, 305b, 405e, 505e) and meter and status information (105d, 205d, 305d, 405f, 505c), wherein the at least one display is provided with video signals comprising the gaming video signals, **characterized by** a storage medium (103, 203, 303, 403, 503) adapted to store the video signals (105a, 205a, 305a, 405b, 405d, 509b, 509d) provided to the at least one display.
2. The electronic gaming system according to claim 1, wherein at least one display (101, 201, 301, 401, 402, 501, 502) is configured as a touch screen.
3. The electronic gaming system according to claim 2, wherein the touch input interface is integrated in the touch screen generating touch signals (101b, 201b, 301b, 401a, 402a, 501a, 502a) representative for the position and/or duration of user touch movements on the touch screen.
4. The electronic gaming system according to any of claims 1 to 3, **characterized in that** the storage medium (103, 203, 303) is further adapted to store at

least one of the gaming audio signals (105b, 205b, 305b), the meter and status information (105d, 205d, 305d) or information derived from the meter and status information and/or the touch signals (101b, 201b, 301b).

5. The electronic gaming system according to any of claims 1 to 4, **characterized in that** the gaming processing unit (105, 205, 305) feeds the gaming video signals, the gaming audio signals, the meter and status information and/or the touch signals to the storage medium (103, 203, 303).

6. The electronic gaming system according to any of claims 1 to 4, **characterized in that** the gaming processing unit (105, 205) transmits the gaming video signals, the gaming audio signals and the meter and status information to a recorder (100, 200), and the touch input interface transmits the touch signals to the recorder, wherein the recorder controls the storage medium (103, 203) and feeds the said signals and information to the storage medium (103, 203).

7. The electronic gaming system according to claim 5, **characterized in that** the recorder (100, 200) forwards the gaming video signals to the at least one display, the gaming audio signals to a loudspeaker (102, 202) and the touch signals to the gaming processing unit.

8. The electronic gaming system according to claim 6 or 7, **characterized in that** the recorder (200) is arranged within the gaming machine (207).

9. The electronic gaming system according to claim 6 or 7, **characterized in that** the recorder (100) is arranged remote from the gaming machine (107) with an online data connection to the gaming processing unit (105) and the touch screen (101).

10. The electronic gaming system according to any of claims 1 to 9, **characterized in that** the storage medium (203, 303) is arranged within the gaming machine (207, 307).

11. The electronic gaming system according to any of claims 1 to 10, **characterized by** a signal mixing unit (509) that receives gaming video signals and gaming audio signals from the gaming processing unit as well as touch signals from the touch input interface, wherein the signal mixing unit generates video signals containing the gaming video signals and provides said video signals to the at least one display.

12. The electronic gaming system according to claim 11, **characterized in that** the signal mixing unit (509) feeds the video signals, the gaming audio signals

and/or the touch signals to the storage medium.

13. The electronic gaming system according to claim 11, **characterized in that** the signal mixing unit (509) transmits the video signals and the gaming audio signals to a recorder (500), and the touch input interface transmits the touch signals to the recorder, wherein the recorder controls the storage medium (503) and feeds the said signals and information to the storage medium (503). 5
14. The electronic gaming system according to any of claims 11 to 13, **characterized by** an online system (510) that remotely controls the signal mixing unit and optionally provides the signal mixing unit with online video and audio signals (508a) for mixing them with the gaming video signals to a combined video signal being fed to the at least one display. 10
15. The electronic gaming system according to any of claims 11 to 14, **characterized by** at least one camera (408) that monitors interactions of users with the gaming machine and optionally the gaming machine or parts thereof, wherein the camera video signals are stored in the storage medium. 15
16. The electronic gaming system according to any of claims 1 to 15, **characterized in that** during idle times the data stored in the storage medium (103, 203, 303) are compressed by either the gaming processing unit (305) or the recorder (100, 200). 20
17. The electronic gaming system according to any of claims 1 to 16, **characterized by** a slot machine interface (106) that receives the meter and status information (105d) from the gaming processing unit (105), wherein, if a recorder (100) is provided, the slot machine interface forwards the meter and status information to the recorder. 25
18. The electronic gaming system according to any of claims 1 to 17, **characterized in that** the content of the storage medium (103, 203, 303, 403, 503) is online retrievable by a remote replay station (104) via a data network (107). 30
19. The electronic gaming system according to any of claims 1 to 18, **characterized by** an external video screen (109) being adapted to receive the gaming video signals via a data network (107). 35
20. The electronic gaming system according to any of claims 1 to 19, **characterized in that** all data stored in the storage means (103, 203, 303, 403, 503) are provided with a book mark derived from the meter and status information (105d, 205d, 305d, 405f, 505c). 40
21. The electronic gaming system according to any of claims 1 to 20, **characterized by** an archive storage device (108) being adapted to backup and archive data from the storage medium (103, 203, 303, 403, 503). 45
22. The electronic gaming system according to any of claims 1 to 21, **characterized by** at least one signal splitter (406, 506) that receives from the gaming processing unit (405) or a signal mixing unit (509) one of a video signal (405b, 405d, 509b, 509d) or a gaming audio signal (405e, 509e) and transmits the received signal to the recorder (400, 500) and either a display (401, 402, 501, 502) or a loudspeaker (404, 504). 50
23. The electronic gaming system according to any of claims 1 to 22, **characterized by** at least one signal splitter (406, 506) that receives from the touch input interface a touch signal (401a, 402a, 501a, 502a) and transmits the received touch signal to the recorder (400, 500) and either a gaming processing unit (405) or a signal mixing unit (509). 55



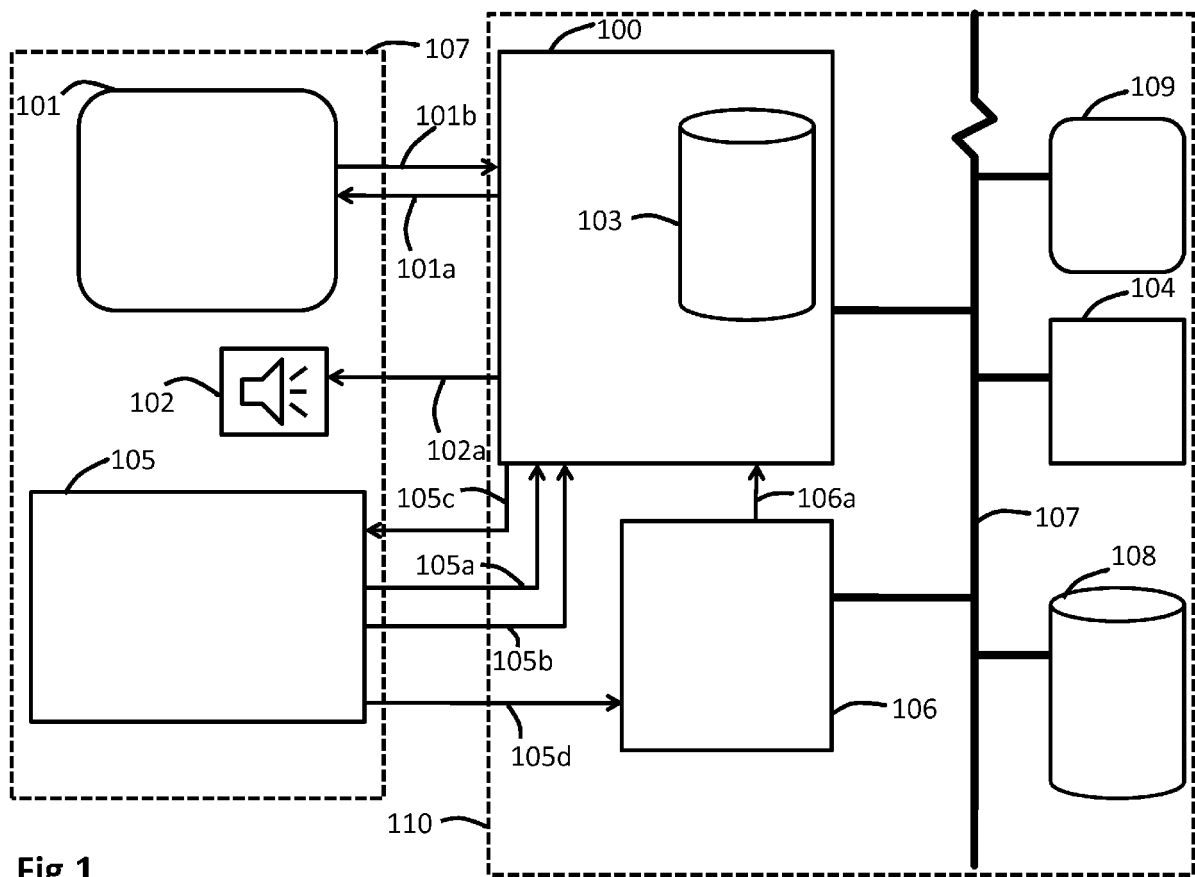


Fig.1

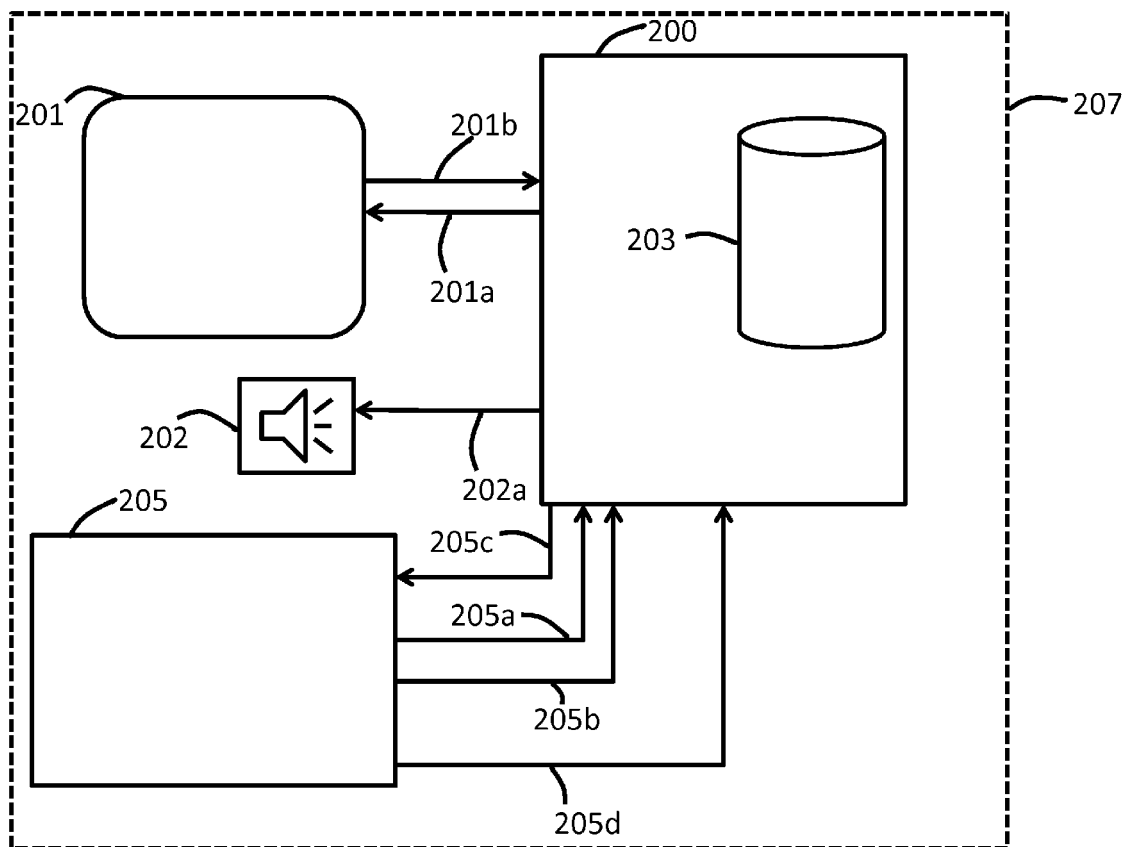


Fig.2

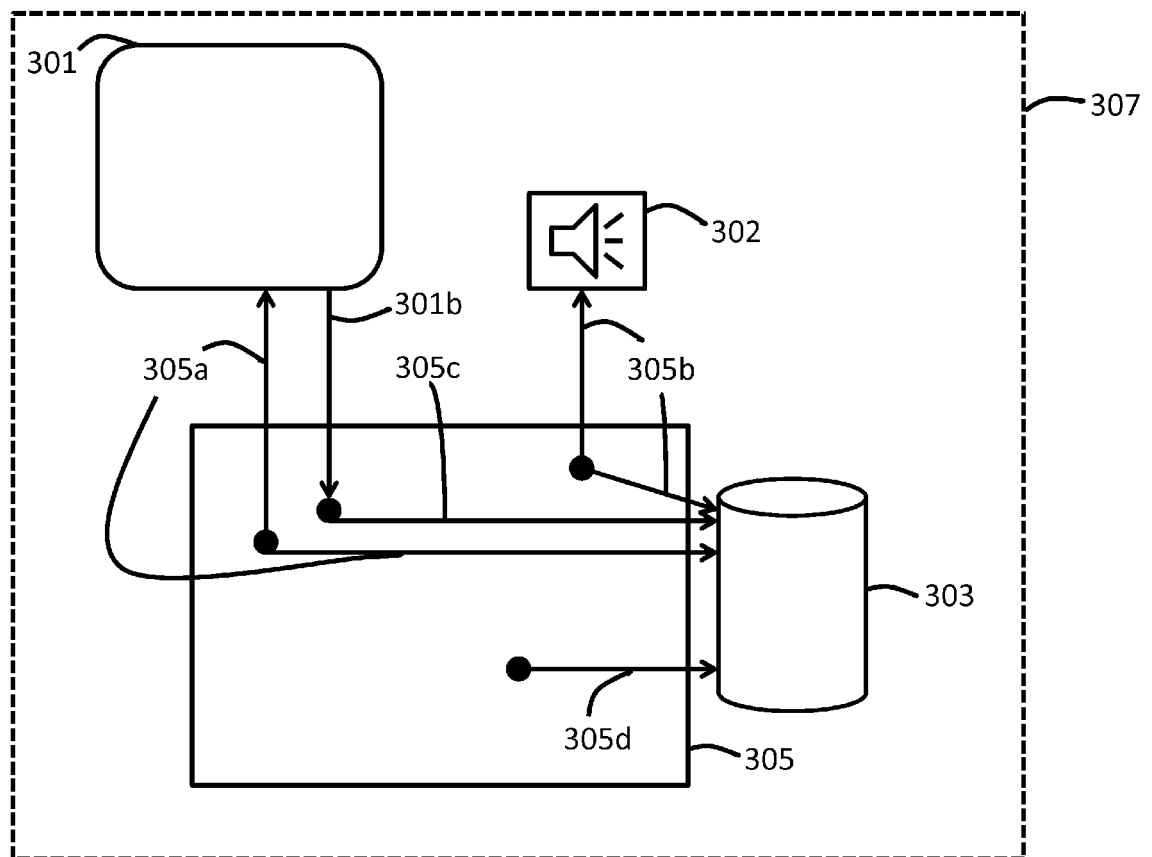


Fig.3

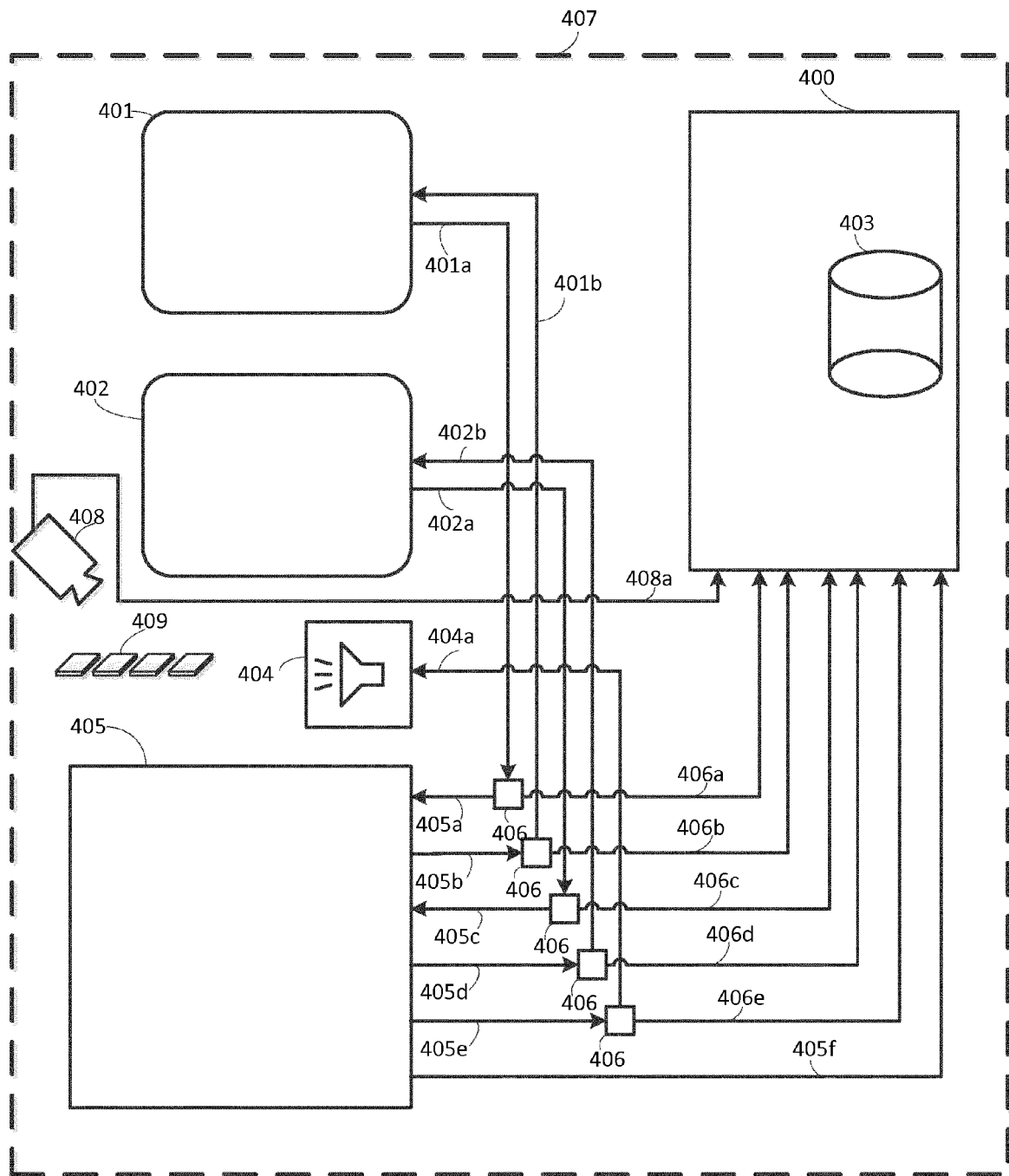


Fig.4

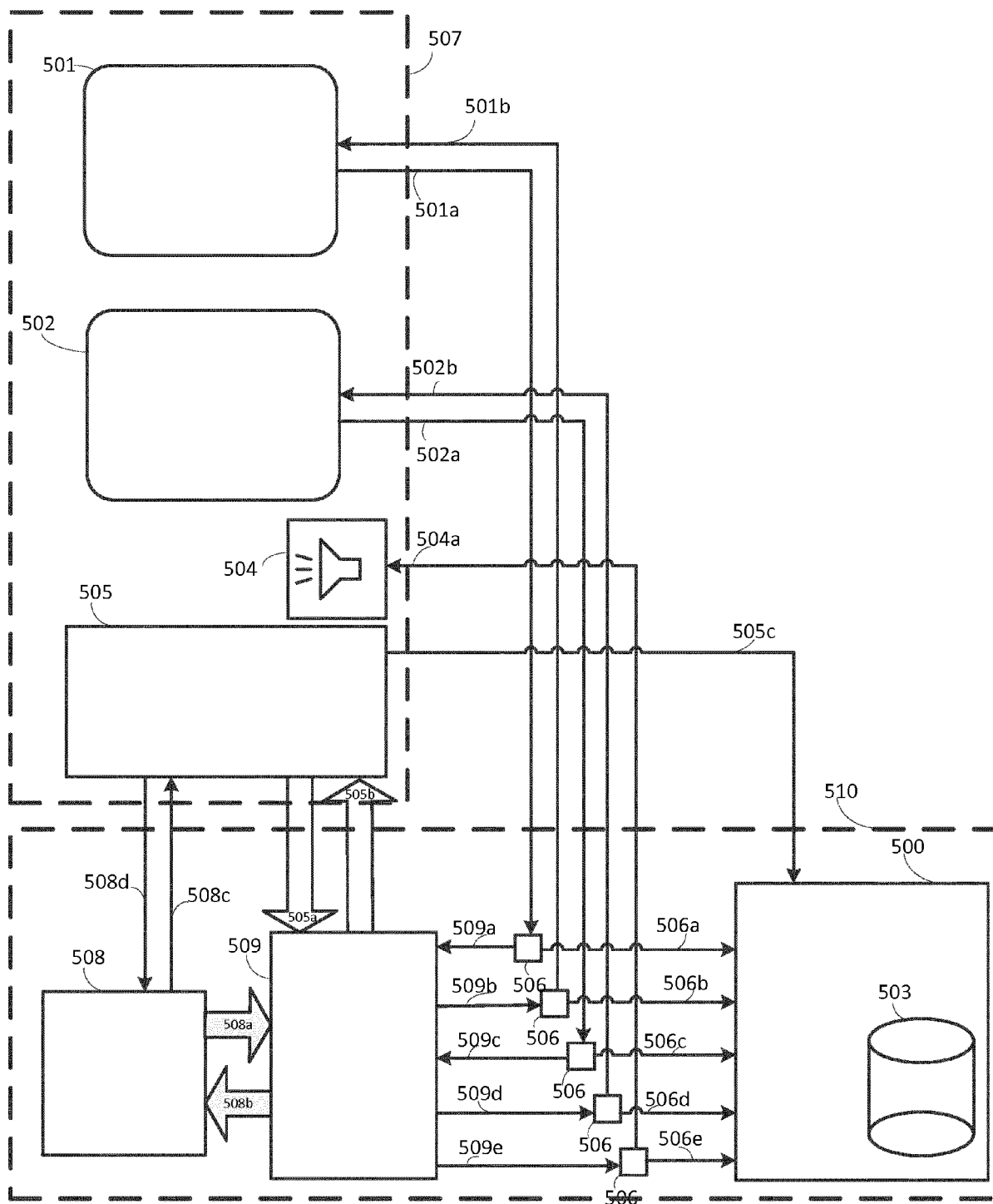


Fig.5

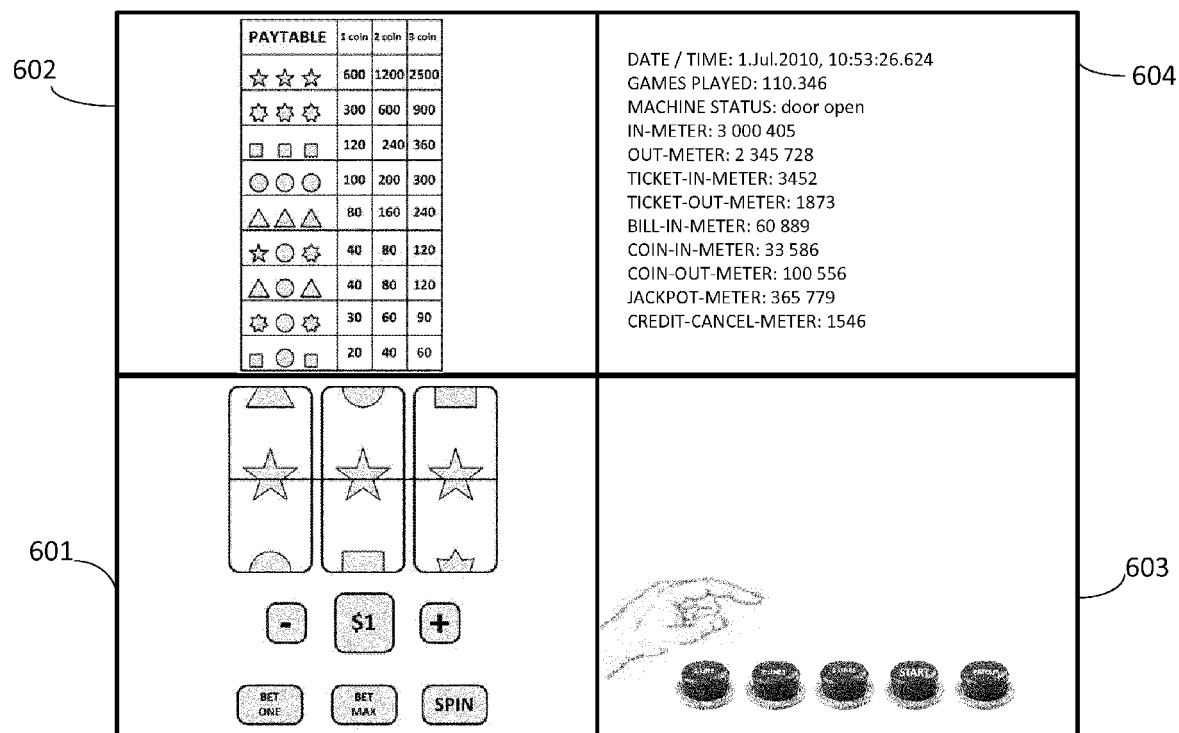


Fig. 6

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			G07F		
The present search report has been drawn up for all claims					
Place of search Munich		Date of completion of the search 17 July 2013		Examiner Melis, Caterina	
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Application Number  
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<b>DOCUMENTS CONSIDERED TO BE RELEVANT</b>					
<b>Category</b>	<b>Citation of document with indication, where appropriate, of relevant passages</b>	<b>Relevant to claim</b>	<b>CLASSIFICATION OF THE APPLICATION (IPC)</b>		
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The present search report has been drawn up for all claims					
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CATEGORY OF CITED DOCUMENTS			T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ..... & : member of the same patent family, corresponding document		
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