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(54) **GAMING SYSTEM AND METHOD
PROVIDING MULTI-GAME FUNCTION AND
REAL-TIME CONNECTION BETWEEN
PLAYERS AND A DEALER**

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(76) Inventor: **Arden YANG**, Rosemead, CA (US)

(57) **ABSTRACT**

Correspondence Address:
LADAS & PARRY
5670 WILSHIRE BOULEVARD, SUITE 2100
LOS ANGELES, CA 90036-5679 (US)

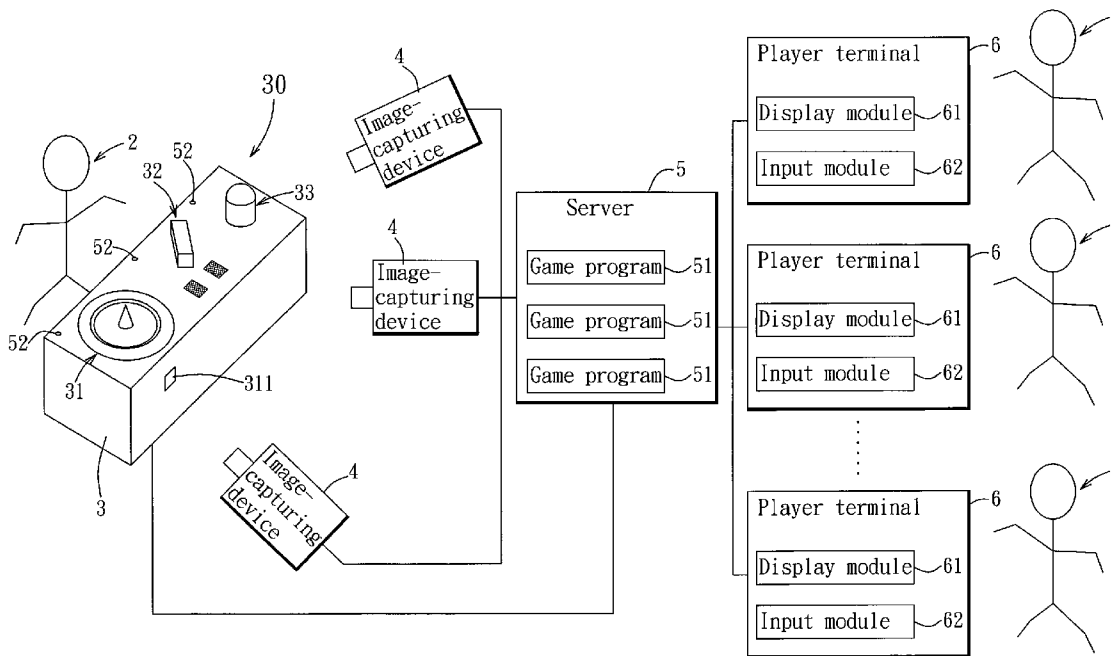
A gaming system includes image-capturing devices, player terminals for a plurality of players, and a server coupled to the image-capturing devices and the player terminals. A gaming method is implemented using the gaming system. The gaming method includes: a) capturing through the image-capturing devices live images of a plurality of games as they are overseen by a dealer, and generating corresponding live video signals and transmitting the same to the server; b) generating betting table screens for the games, and transmitting the live video signals and the betting table screens to the player terminals for display thereon; c) allowing the players to place bets on one of the games through the player terminals; and d) automatically performing payout and collection for the players.

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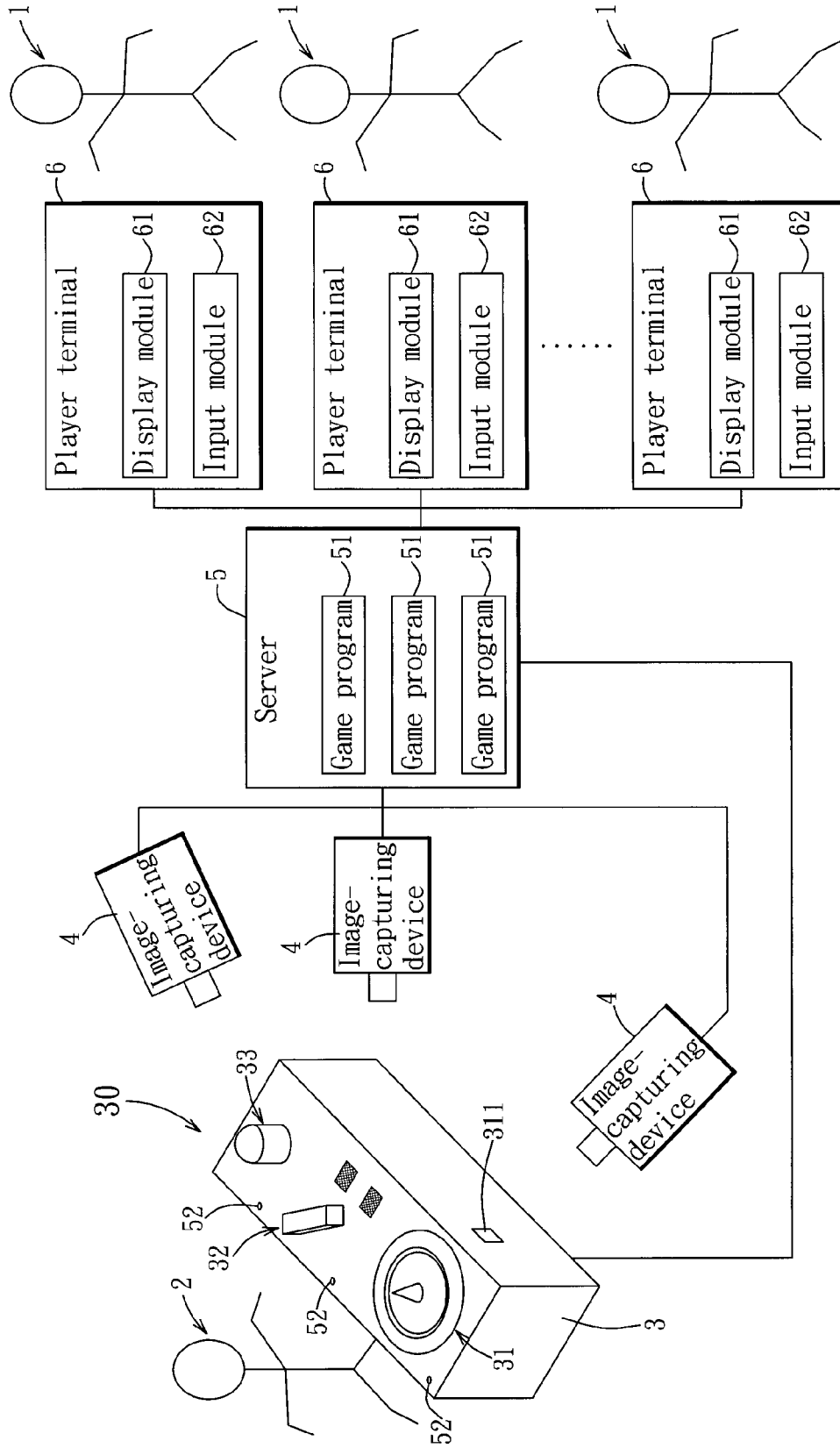


FIG. 1

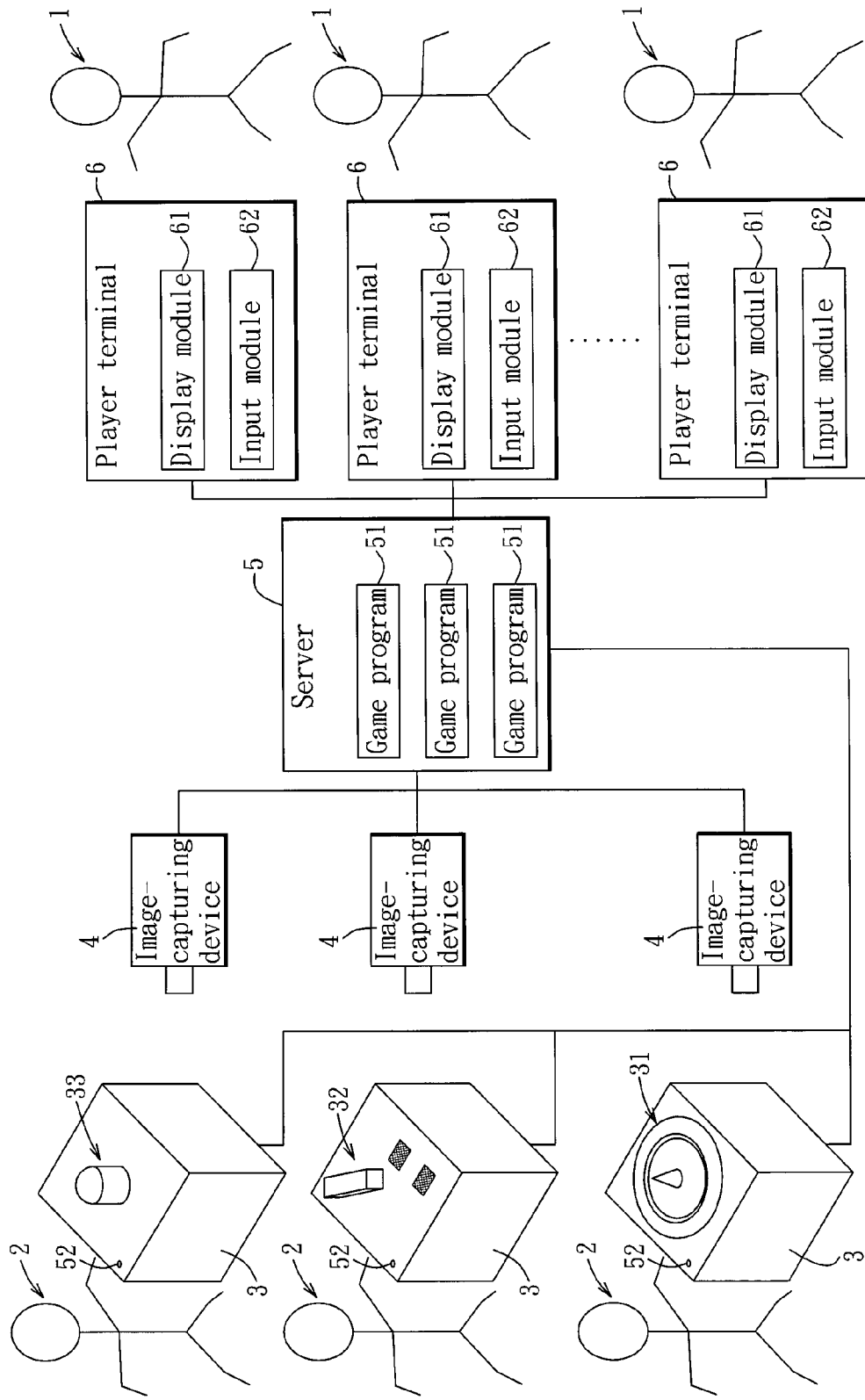


FIG. 2

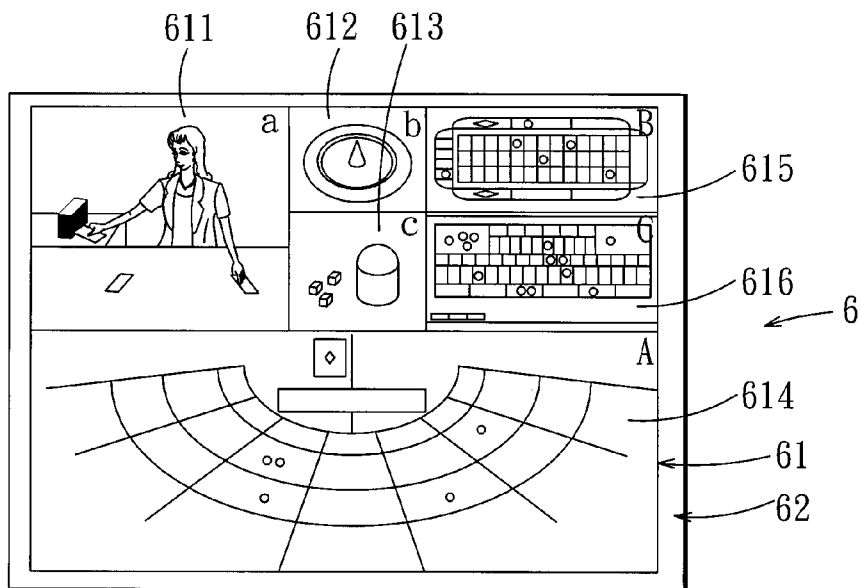


FIG. 3

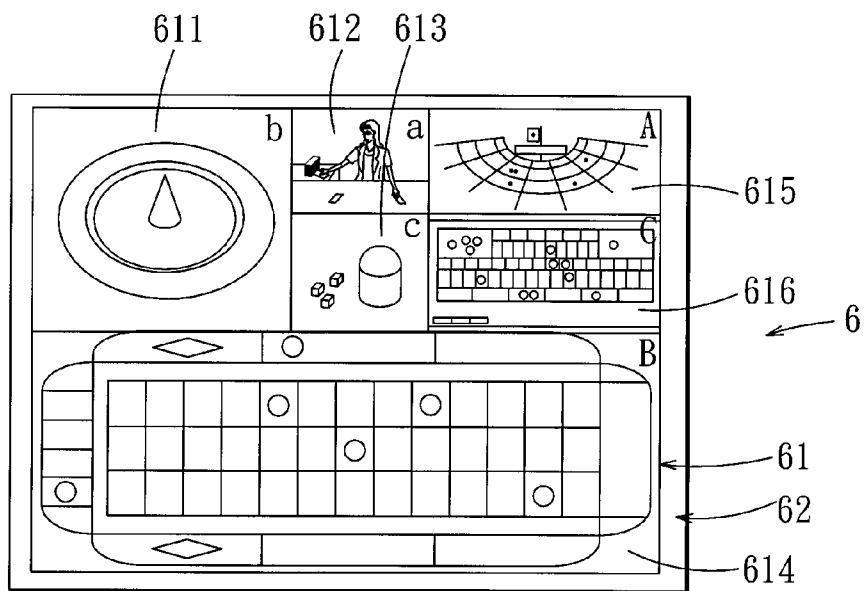


FIG. 4

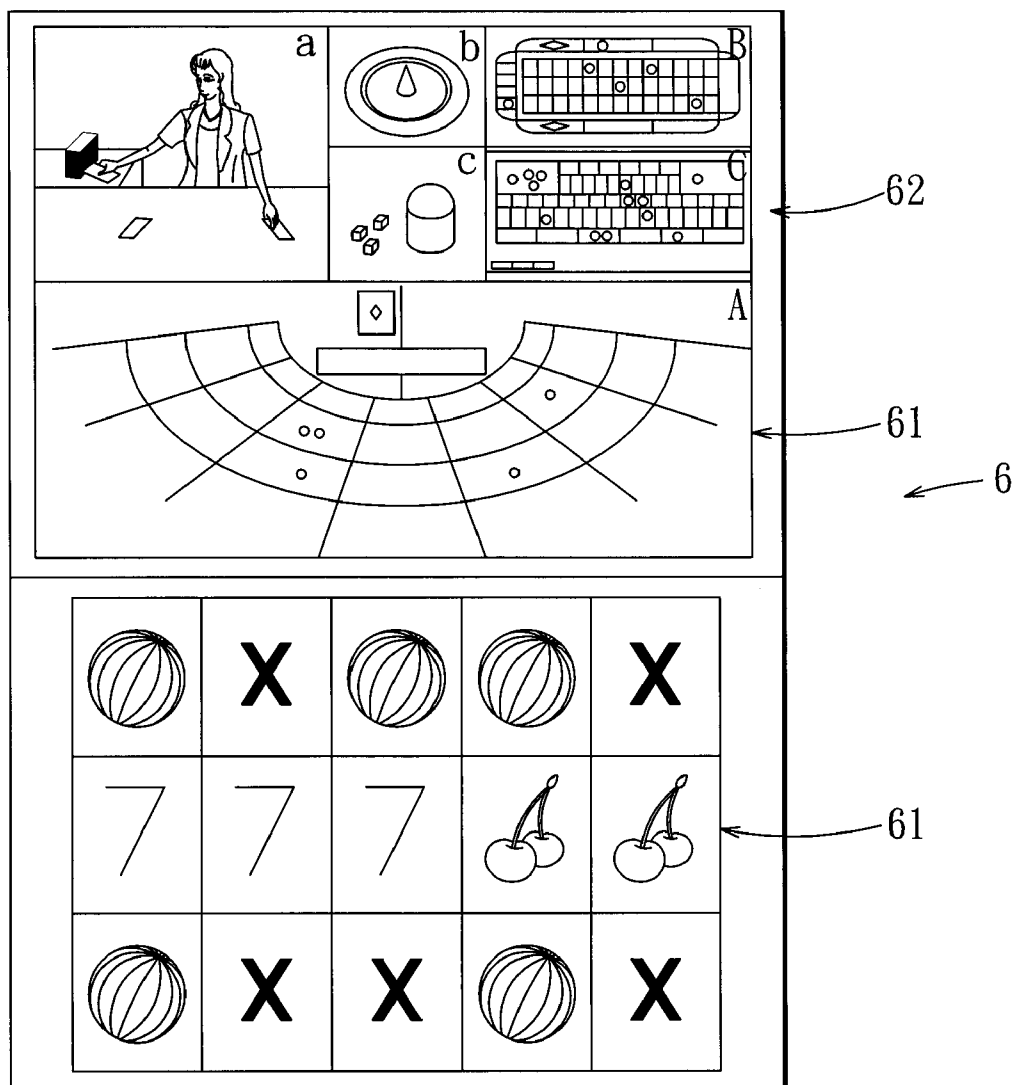


FIG. 5

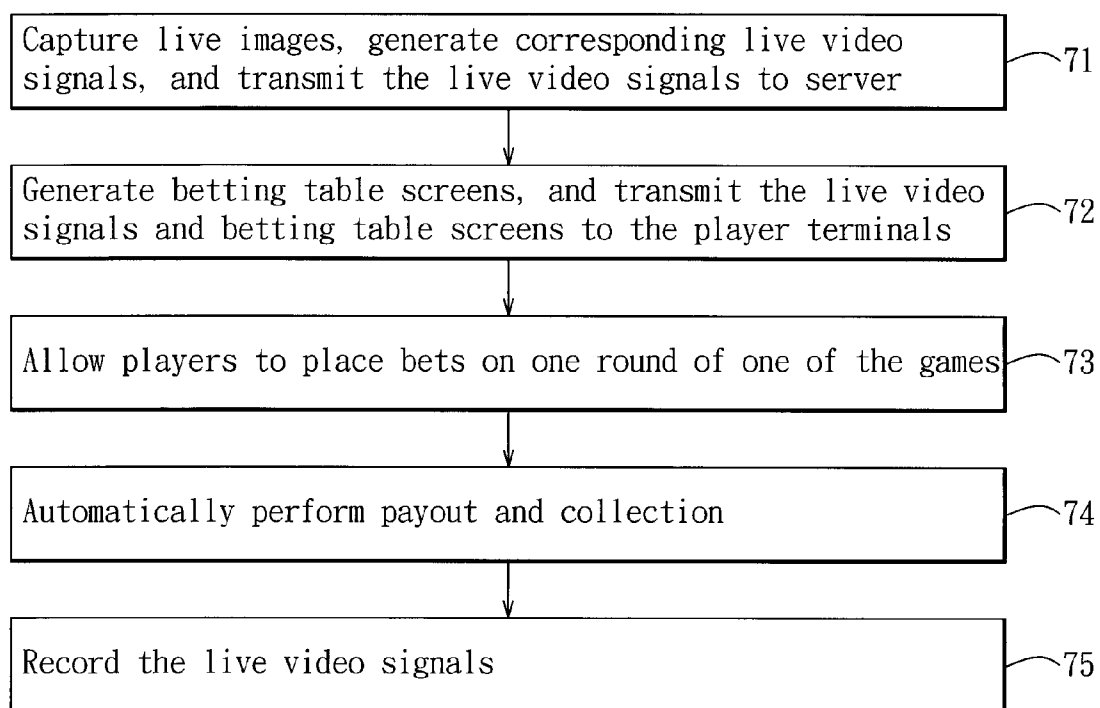


FIG. 6

GAMING SYSTEM AND METHOD PROVIDING MULTI-GAME FUNCTION AND REAL-TIME CONNECTION BETWEEN PLAYERS AND A DEALER

CROSS-REFERENCE TO RELATED APPLICATION

[0001] This application claims priority of Taiwanese Application No. 096123777, filed on Jun. 29, 2007.

BACKGROUND OF THE INVENTION

[0002] 1. Field of the Invention

[0003] The present invention relates to a gaming system and method, more particularly to a gaming system and method that provide a multi-game function and a real-time, remote connection between players and a dealer.

[0004] 2. Description of the Related Art

[0005] Gambling games that may be played by multiple players may be classified into computer-based games and table-based games. Examples of computer-based games include bingo and keno, while examples of table-based games include craps and roulette.

[0006] In the case of computer-based games, many players are inclined to shun such games as they lack direct human involvement (i.e., a dealer). For example, the game of keno involves the use of a lottery computer that randomly chooses winning numbers.

[0007] As to table-based games, the number of players that can participate is limited by several factors. For example, the actual physical size of the game table used for a particular table-based game limits the number of players that can play the game. In addition, with a large number of players, the dealer(s) may encounter difficulties in keeping track of the bets placed by each player and in performing collection and payout for each player. Another drawback of table-based games is that it is virtually impossible for players to play more than one table-based game at a time.

SUMMARY OF THE INVENTION

[0008] Therefore, the object of this invention is to provide a gaming system and method that provide a multi-game function and a real-time, remote connection between players and a dealer.

[0009] The gaming system comprises: a plurality of image-capturing devices for respectively capturing live images of a plurality of games as the games are overseen by a dealer, generating corresponding live video signals, and outputting the live video signals; a plurality of player terminals for performing display and allowing input respectively by a plurality of players; and a server coupled to the image-capturing devices to receive the live video signals output by the image-capturing devices, and further coupled to the player terminals.

[0010] The server generates a plurality of betting table screens corresponding respectively to the games, and transmits the live video signals and the betting table screens to each of the player terminals for display thereon. The server allows the players to place bets on one round of a selected one of the games respectively through the player terminals during a predetermined time interval after the start of the one round of the selected one of the games. The server further automatically performs payout and collection for the players on the basis of a game outcome of the one round of the selected one of the games, the bets placed by the players on the one round

of the selected one of the games, and predetermined rules established for the selected one of the games.

[0011] The gaming method is implemented using the gaming system, and comprises: a) capturing through the image-capturing devices live images of a plurality of games as the games are overseen by a dealer, generating corresponding live video signals, and transmitting the live video signals to the server; b) generating a plurality of betting table screens corresponding respectively to the games, and transmitting the live video signals and the betting table screens to each of the player terminals for display thereon; c) allowing the players to place bets on one round of a selected one of the games respectively through the player terminals during a predetermined time interval after the start of the one round of the selected one of the games; and d) automatically performing payout and collection for the players on the basis of a game outcome of the one round of the selected one of the games, the bets placed by the players on the one round of the selected one of the games, and predetermined rules established for the selected one of the games.

BRIEF DESCRIPTION OF THE DRAWINGS

[0012] Other features and advantages of the present invention will become apparent in the following detailed description of the preferred embodiments with reference to the accompanying drawings, of which:

[0013] FIG. 1 is a schematic block diagram of a gaming system according to a first preferred embodiment of the present invention;

[0014] FIG. 2 is a schematic block diagram of a modified example of the first preferred embodiment;

[0015] FIG. 3 is a schematic view of an exemplary layout of a display module of a player terminal according to the first preferred embodiment;

[0016] FIG. 4 is a schematic view of another exemplary layout of the display module of the player terminal according to the first preferred embodiment;

[0017] FIG. 5 is a schematic view of an exemplary layout of a display portion of the player terminal according to a second preferred embodiment of the present invention; and

[0018] FIG. 6 is a flow chart of a gaming method according to a preferred embodiment of the present invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0019] Referring to FIG. 1, a gaming system according to a first preferred embodiment of the present invention provides a remote connection between a plurality of players 1 and a dealer 2, and enables the players 1 to simultaneously play a plurality of games that are overseen by the dealer 2. For purposes of illustration, the dealer 2 is shown and described as overseeing three different games. Additionally, in the first preferred embodiment, the dealer 2 is assumed to be at a single, designated dealer location, such as a designated location in a casino, and is positioned next to a gaming table 3 on which a plurality of different types of gaming equipment 30 are disposed. As an example, the gaming equipment 30 may include a roulette table 31, a stack of cards 32, and dice gear 33. The three different games that may be played with the gaming equipment 30 include, as an example, roulette played using the roulette table 31, a high-low card game played using the stack of cards 32, and a game of dealer-initiated craps played using the dice gear 33.

[0020] In the first preferred embodiment, the gaming system includes three image-capturing devices 4, a plurality of player terminals 6, and a server 5.

[0021] The image-capturing devices 4 respectively capture live images of the three games as the games are overseen by the dealer 2, generate corresponding live video signals, and output the live video signals. It is to be noted sound may also be captured with the live images, in which case the live video signals will include both visual and audio components.

[0022] With reference to FIG. 2, in a modified example of the first preferred embodiment, there are a plurality of dealers 2 that oversee respectively the plurality of games. In this case, each of the image-capturing devices 4 captures the live image of a respective one of the games. This modified example allows each of the games to be overseen by the respective dealer 2 at a different location.

[0023] The player terminals 6 perform display and allow input respectively by the players 1. Each of the player terminals 6 includes a display module 61 for performing display, and an input module 62 for allowing input by the players 1. The display module 61 of each of the player terminals 6 may be a liquid-crystal display or a display based on cathode-ray tube technology. The input module 62 of each of the player terminals 6 may be touchscreen-based and therefore, incorporated as part of the respective display module 61, or may be implemented through use of a keypad that is separate from the respective display module 61.

[0024] The server 5 is coupled to the image-capturing devices 4 to receive the live video signals output thereby, and is further coupled to the player terminals 6. The coupling between the server 5 and each of the image-capturing devices 4, and between the server 5 and each of the player terminals 6 may be wire-based or network-based.

[0025] In some embodiments, the server 5 has a plurality of game programs 51, each for facilitating play of a respective one of the games.

[0026] The server 5 generates a plurality of betting table screens corresponding respectively to the games, and transmits the live video signals and the betting table screens to each of the player terminals 6 for display thereon. The server 5 allows the players 1 to place bets on one round of a selected one of the games respectively through the player terminals 6 during a predetermined time interval after the start of the one round of the selected one of the games. In one embodiment, the server 5 updates the betting table screens in accordance with the bets placed by the players 1, and transmits the updated versions of the betting table screens to the player terminals 6 for display thereon.

[0027] The server 5 automatically performs payout and collection for the players 1 on the basis of a game outcome of the one round of the selected one of the games, the bets placed by the players 1 on the one round of the selected one of the games, and predetermined rules established for the selected one of the games. As an example, the bets placed by the players 1 may be in the form of game credits that are purchased by the players 1 through the player terminals 6 (e.g., using coins or credit cards), in which case payout and collection may be performed by respectively adding to or subtracting from the game credits of the players 1. The game credits may then be directly credited to the credit cards of the players 1 or cashed-in at the location of the players 1. However, the game credits need not necessarily be based on actual monetary amounts.

[0028] In some embodiments, the server 5 may include a plurality of start elements 52 corresponding respectively to the games. The start elements 52 may be buttons disposed on the gaming table 3 and actuated by the dealer 2 to initiate the start of each game or the start of betting for each game. Alternatively, the start elements 52 may be foot-actuated devices.

[0029] It is to be noted that the server 5 is capable of operating such that, prior to completion of the one round of the selected one of the games, another round of another one of the games may be played by the players 1. Stated differently, the server 5 is capable of operating such that the games may be successively initiated by the players 1 so that, ultimately, two or more of the games are played simultaneously by the players 1.

[0030] In the first preferred embodiment, the server 5 automatically determines the game outcome by application of a pattern recognition technique on the live video signal for the one round of the selected one of the games. In some embodiments, the gaming equipment 30 may include sensors 311 for obtaining a detection signal at the end of the one round of the selected one of the games, in which case the server 5 is coupled to the gaming equipment 30 to receive the detection signal and determines the game outcome from the detection signal. For example, the roulette table 31 may be equipped with the sensors 311 that detect in which slot (not shown) of the roulette table 31 a ball (not shown) finally settles.

[0031] With further reference to FIGS. 3 and 4, in the first preferred embodiment, the display module 61 of each of the player terminals 6 includes a plurality of display regions 611-616. The server 5 performs control such that the live video signals and the betting table screens are respectively displayed in the display regions 611-616. In the first preferred embodiment, two of the display regions 611-616 are larger than the other of the display regions 611-616, and the players 1 are allowed to select, through the player terminals 6, which of one of the live video signals and one of the betting table screens are to be displayed respectively in the two larger ones of the display regions 611-616.

[0032] Further, in the first preferred embodiment, the server 5 is operable to record the live video signals of a predetermined number of most recent rounds of the games. In some embodiments, the live video signals are recorded on both the server 5 and the player terminals 6. Through such a feature, the players 1 and the dealer 2 are able to view the recorded live video signals, such that disputes among the players 1 or between one of the players 1 and the dealer 2 may be easily resolved.

[0033] Referring to FIG. 5, in accordance with a second preferred embodiment of the present invention, each of the player terminals 6 has first and second display modules 61. The server 5 performs control such that the live video signals and the betting table screens are displayed on the first display module 61 of each player terminal 6, and each player terminal 6 is configured to permit play of a single-player game independent from the games captured by the image-capturing devices 4 and to display a gaming screen of the single-player game on the second display module 61. As an example, the single-player game may be a game of slots. All other aspects of the second preferred embodiment are identical to the first preferred embodiment.

[0034] A gaming method according to a preferred embodiment of the present invention will now be described with reference to FIG. 6. For purposes of illustration, it is assumed

that the gaming method is implemented using the gaming system of the first preferred embodiment.

[0035] First, in step **71**, live images of the games as the games are overseen by the dealer **2** are captured through the image-capturing devices **4**, after which corresponding live video signals are generated, and the live video signals are transmitted to the server **5**.

[0036] Next, in step **72**, a plurality of betting table screens corresponding respectively to the games are generated by the server **5**, and the live video signals and the betting table screens are transmitted to each of the player terminals **6** for display thereon.

[0037] Subsequently, in step **73**, the players **1** are allowed to place bets on one round of a selected one of the games respectively through the player terminals **6** during a predetermined time interval after the start of the one round of the selected one of the games.

[0038] In step **74**, payout and collection for the players **1** are automatically performed by the server **5** on the basis of a game outcome of the one round of the selected one of the games, the bets placed by the players **1** on the one round of the selected one of the games, and predetermined rules established for the selected one of the games.

[0039] Finally, in step **75**, the live video signals of a predetermined number of most recent rounds of the games are recorded.

[0040] The gaming system and method of the present invention have many advantages. To begin with, since the server **5** automatically performs payout and collection, a large number of the players **1** may play the games at one time. That is, the difficulties faced by the dealer **2** in having to keep track of all the bets placed by the players **1**, mentally perform payout calculations, etc. are avoided. Also, since limitations with respect to the size of the gaming table are not a concern with the use of the present invention, again, a large number of the players **1** may play the games at one time.

[0041] In addition, since the dealer **2** is a real person, a human element is present in the games played according to the present invention. This is in contrast to most conventional computer-based games.

[0042] Furthermore, the server **5** (and possibly each of the player terminals **6**) is able to record the live video signals of rounds of the games. Therefore, if a dispute arises, the recorded rounds of the games may be reviewed by the dealer **2** and the players **1** to settle the dispute. As a related issue, since the location where the dealer **2** oversees the games is in a public, designated location, such as a gambling casino, if any one of the players **1** has any doubts with respect to the live images captured in real-time by the image-capturing devices **4**, the player **1** can go to the designated location in person and see for him or herself the dealer **2** overseeing the games.

[0043] While the present invention has been described in connection with what are considered the most practical and preferred embodiments, it is understood that this invention is not limited to the disclosed embodiments but is intended to cover various arrangements included within the spirit and scope of the broadest interpretation so as to encompass all such modifications and equivalent arrangements.

What is claimed is:

1. A gaming system, comprising:

a plurality of image-capturing devices for respectively capturing live images of a plurality of games as the games are overseen by a dealer, generating corresponding live video signals, and outputting the live video signals;

a plurality of player terminals for performing display and allowing input respectively by a plurality of players; and a server coupled to said image-capturing devices to receive the live video signals output by said image-capturing devices, and further coupled to said player terminals;

said server generating a plurality of betting table screens corresponding respectively to the games, and transmitting the live video signals and the betting table screens to each of said player terminals for display thereon;

said server allowing the players to place bets on one round of a selected one of the games respectively through said player terminals during a predetermined time interval after the start of the one round of the selected one of the games;

said server automatically performing payout and collection for the players on the basis of a game outcome of the one round of the selected one of the games, the bets placed by the players on the one round of the selected one of the games, and predetermined rules established for the selected one of the games.

2. The gaming system of claim **1**, wherein said server automatically determines the game outcome by application of a pattern recognition technique on the live video signal for the one round of the selected one of the games.

3. The gaming system of claim **1**, further comprising gaming equipment having sensors for obtaining a detection signal at the end of the one round of the selected one of the games, said server being coupled to said gaming equipment to receive the detection signal and determining the game outcome from the detection signal.

4. The gaming system of claim **1**, wherein each of said player terminals includes a display module having a plurality of display regions, said server performing control such that the live video signals and the betting table screens are respectively displayed in said display regions.

5. The gaming system of claim **4**, wherein two of said display regions are larger than the other of said display regions, and the players are allowed to select, through said player terminals, which of one of the live video signals and one of the betting table screens are to be displayed respectively in the two larger ones of said display regions.

6. The gaming system of claim **1**, wherein each of said player terminals has first and second display modules, said server performing control such that the live video signals and the betting table screens are displayed on said first display module, each of said player terminals being configured to permit play of a single-player game independent from the games captured by said image-capturing devices and to display a gaming screen of the single-player game on said second display module.

7. The gaming system of claim **1**, wherein said server is operable to record the live video signals of a predetermined number of most recent rounds of the games.

8. A gaming method to be implemented using a gaming system including a plurality of image-capturing devices, a plurality of player terminals respectively for a plurality of players, and a server coupled to the image-capturing devices and the player terminals, said gaming method comprising:

a) capturing through the image-capturing devices live images of a plurality of games as the games are overseen by a dealer, generating corresponding live video signals, and transmitting the live video signals to the server;

b) generating a plurality of betting table screens corresponding respectively to the games, and transmitting the

live video signals and the betting table screens to each of the player terminals for display thereon;

- c) allowing the players to place bets on one round of a selected one of the games respectively through the player terminals during a predetermined time interval after the start of the one round of the selected one of the games; and
- d) automatically performing payout and collection for the players on the basis of a game outcome of the one round of the selected one of the games, the bets placed by the players on the one round of the selected one of the games, and predetermined rules established for the selected one of the games.

9. The gaming method of claim 8, wherein, in step d), the game outcome is automatically determined by application of a pattern recognition technique on the live video signal for the one round of the selected one of the games.

10. The gaming method of claim 8, the gaming system further including gaming equipment having sensors for obtaining a detection signal at the end of the one round of the selected one of the games, wherein, in step d), the game outcome is automatically determined from the detection signal.

11. The gaming method of claim 8, each of the player terminals including a display module having a plurality of display regions, wherein, in step b), the live video signals and the betting table screens are respectively displayed in the display regions.

12. The gaming method of claim 11, two of the display regions being larger than the other of the display regions, wherein, in step b), the players are allowed to select, through the player terminals, which of one of the live video signals and one of the betting table screens are to be displayed respectively in the two larger ones of the display regions.

13. The gaming method of claim 8, each of the player terminals having first and second display modules, wherein, in step b), the live video signals and the betting table screens are displayed on the first display module,

each of the player terminals being configured to permit play of a single-player game independent from the games captured by the image-capturing devices, wherein, in step b), a gaming screen of the single-player game is displayed on the second display module.

14. The gaming method of claim 8, further comprising:

- e) recording the live video signals of a predetermined number of most recent rounds of the games.

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