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## (54) SERVER, GAMING SYSTEM, AND CONTROL METHOD OF THE SERVER

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**ENTERTAINMENT** 

CORPORATION, Koto-ku (JP); Aruze Gaming America, Inc., Las

Vegas, NV (US)

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## **Publication Classification**

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(57)ABSTRACT

An object of the present invention is to provide a server, a gaming system, and a control method of the server capable of adding a new feature to a payout related to a jackpot to produce a new entertainment property.

The present invention provides a server programmed to execute the processing of: storing a first resource data and a second resource data that is different from the first resource data; providing game media to the gaming machine when a predetermined condition is satisfied, based on the first resource data, and reducing an amount of game media indicated by the first resource data; and providing game media to the gaming machine when the predetermined condition is satisfied after the amount of game media indicated by the first resource data has been reduced to the predetermined amount or less, based on the second resource data.

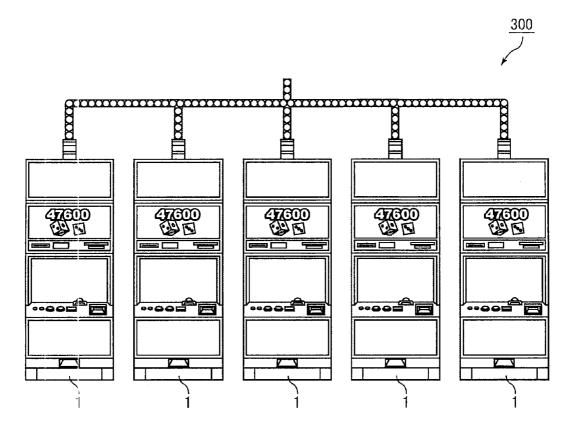


FIG. 1A

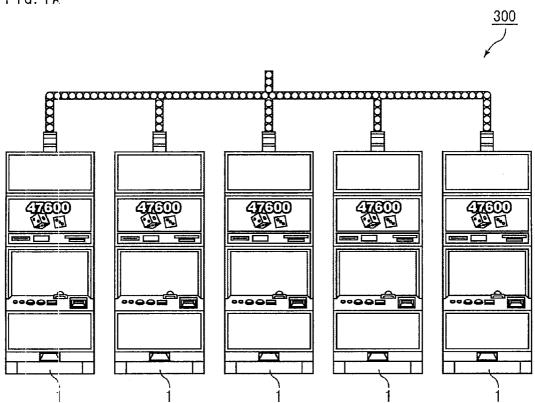
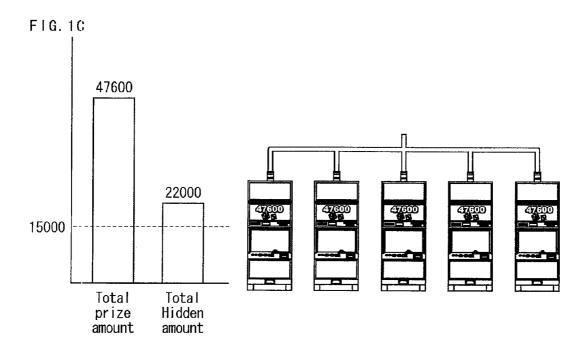
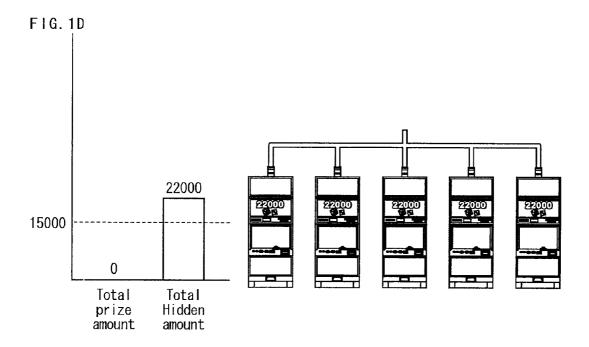


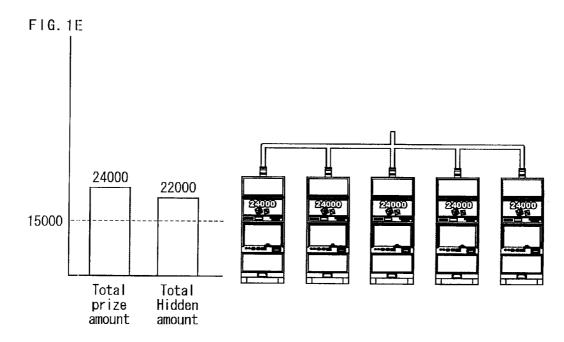
FIG. 1B

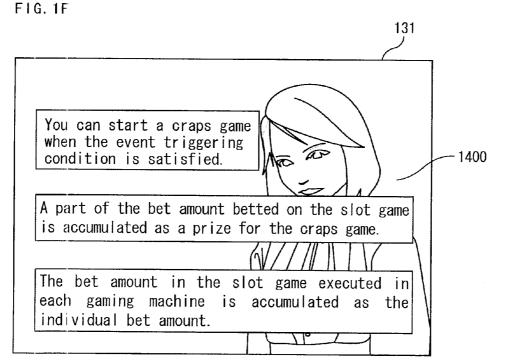
Accumulation percentage for total prize amount	* 1 4 %
Accumulation percentage for total Hidden amount	2 %

<sup>\*</sup>The 14% consists of 10% used as the bet amount for non-shooter and 4% used as the auto bet amount for shooter.









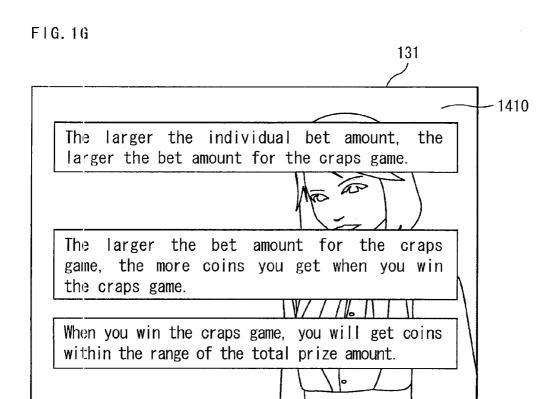


FIG. 1H

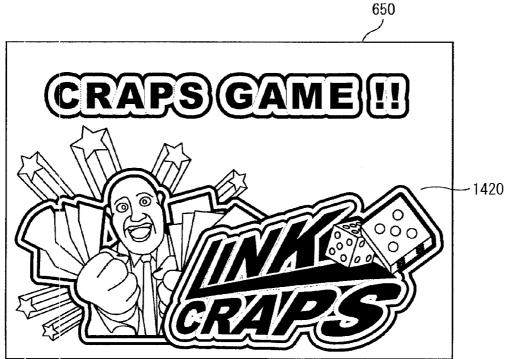
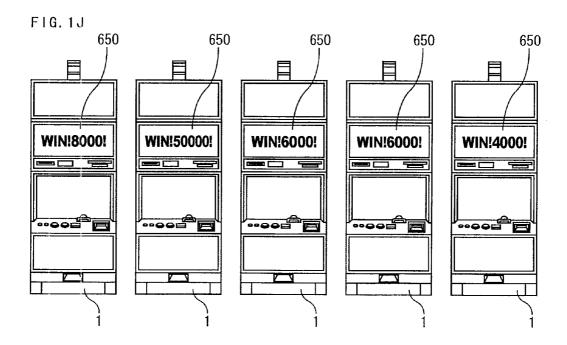
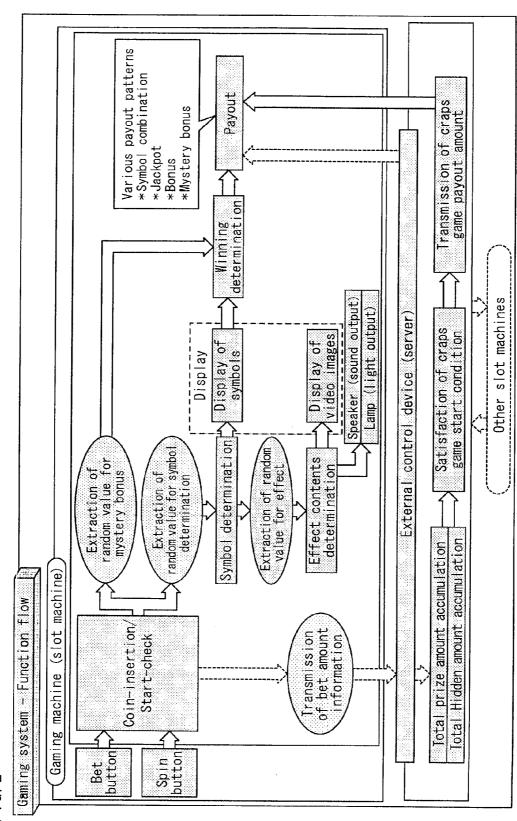


FIG. 11

Gaming terminal	001	002	003	004	005
Individual bet amount	80000	100000	60000	60000	40000
*1 Auto bet amount for non shooter	8000		6000	6000	4000
*2 Auto bet amount for shooter		50000	_		

- \*1: Auto bet amount for non shooter is the auto bet amount in non shooter gaming machine.
- \*2: Auto bet amount for shooter is the auto bet amount in shooter gaming machine.
- \*3: The resource of the auto bet amount is the total prize amount.





F1G, 2

FIG. 3

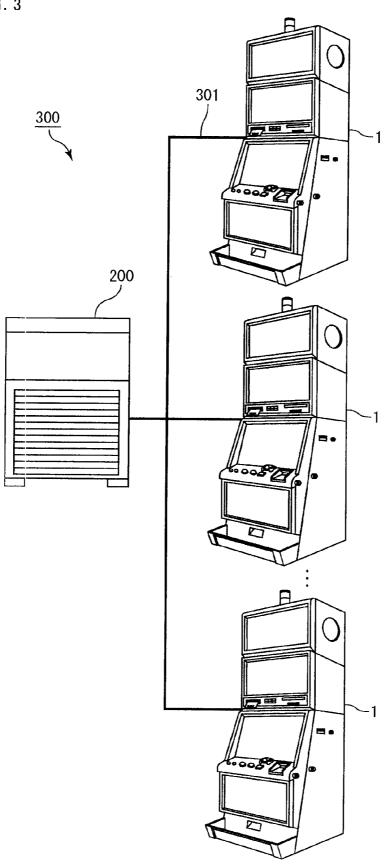


FIG. 4

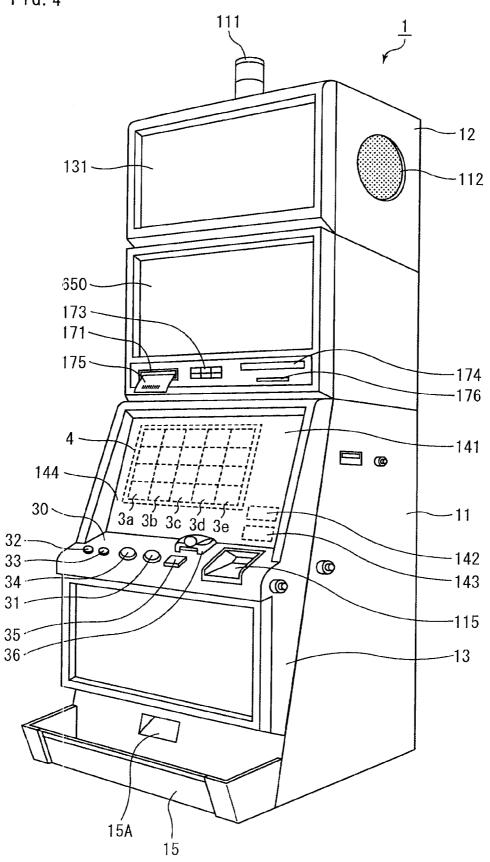
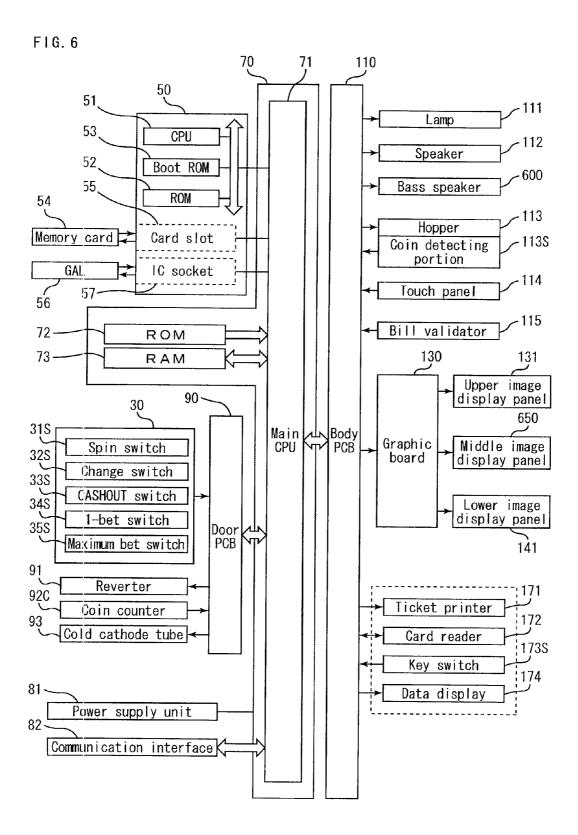


FIG. 5

	I		1		Y
	First video	Second	Third video		Fifth video
	reel	video reel	reel	video reel	reel
Code number	Symbol	Symbol	Symbol	Symbol	Symbol
00	JACKPOT 7	JACKPOT 7	JACKPOT 7	JACKPOT 7	JACKPOT 7
01	PLUM	BELL	CHERRY	ORANGE	APPLE
02	ORANGE	APPLE	ORANGE	PLUM	ORANGE
03	PLUM	BELL	APPLE	STRAWBERRY	BELL
04	ORANGE	CHERRY	ORANGE	BELL	PLUM
05	PLUM	ORANGE	PLUM	PLUM	BLUE 7
06	ORANGE	PLUM	ORANGE	APPLE	ORANGE
07	PLUM	CHERRY	PLUM	BLUE 7	APPLE
08	BLUE 7	BELL	ORANGE	PLUM	PLUM
09	CHERRY	APPLE	PLUM	ORANGE	BELL
10	ORANGE	BELL	ORANGE	BELL	CHERRY
11	BELL	STRAWBERRY	PLUM	ORANGE	PLUM
12	ORANGE	PLUM	BELL	PLUM	BELL
13	STRAWBERRY	BLUE 7	STRAWBERRY	CHERRY	ORANGE
14	BLUE 7	BELL	BLUE 7	APPLE	APPLE
15	ORANGE	APPLE	BELL	STRAWBERRY	PLUM
16	APPLE	BELL	CHERRY	CHERRY	CHERRY
17	PLUM	STRAWBERRY	PLUM	BELL	ORANGE
18	ORANGE	PLUM	ORANGE	PLUM	BELL
19	PLUM	CHERRY	PLUM	ORANGE	ORANGE
20	BLUE 7	BELL	ORANGE	CHERRY	PLUM
21	CHERRY	APPLE	PLUM	PLUM	STRAWBERRY



※Free games of the number of times determined by lottery are conducted.

Symbol combination table	nation table					
	Соть	Combination of symbols	s   oqu			
First video	Second video		Third video Fourth video	Fifth video	Number of payouts	Winning combination
ree	reel	reel	ree	ree		,
JACKPOT 7	JACKPOT 7	JACKPOT 7	JACKPOT 7	JACKPOT 7	Amount of jackbot	Jacknot
APPLE	APPLE	APPLE	APPLE	APPLE	Bonus game*	Bonus pame tripper
BLUE 7	BLUE 7	BLUE 7	BLUE 7	BLUE 7	10	BI IIF
BELL	BELL	BELL	BELL	BELL	8	RFI
CHERRY	CHERRY	CHERRY	CHERRY	CHERRY	5	CHERRY 3
STRAWBERRY	STRAWBERRY	STRAWBERRY	STRAWBERRY	STRAWBERRY	5	STRAWBERRY
PLUM	PLUM	MINT	PLUM	PLUM	4	M Id
ORANGE	ORANGE	ORANGE	ORANGE	ORANGE	3	ORANGE 3
CHERRY	CHERRY	CHERRY	(ANY)	(ANY)	2	CHERRY 2
ORANGE	ORANGE	ORANGE	(ANY)	(ANY)	2	ORANGE 2
CHERRY	(ANY)	(ANY)	(ANY)	(ANY)		CHERRY 1
ORANGE	(ANY)	(ANY)	(ANY)	(ANY)		ORANGE 1

F1G. 8

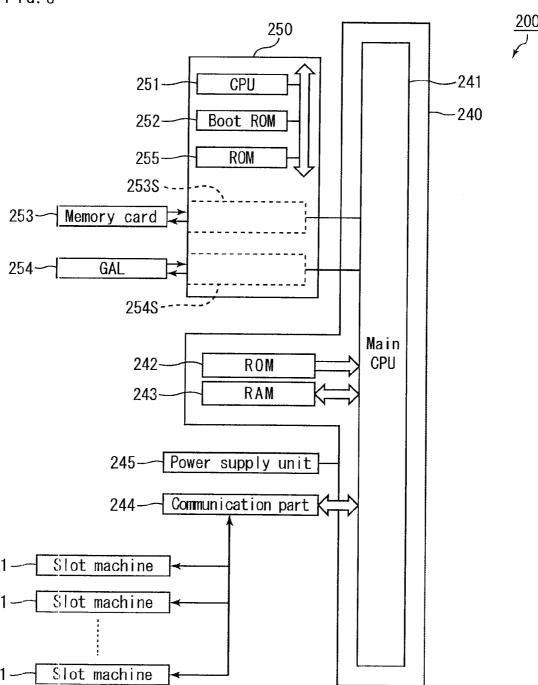


FIG. 9

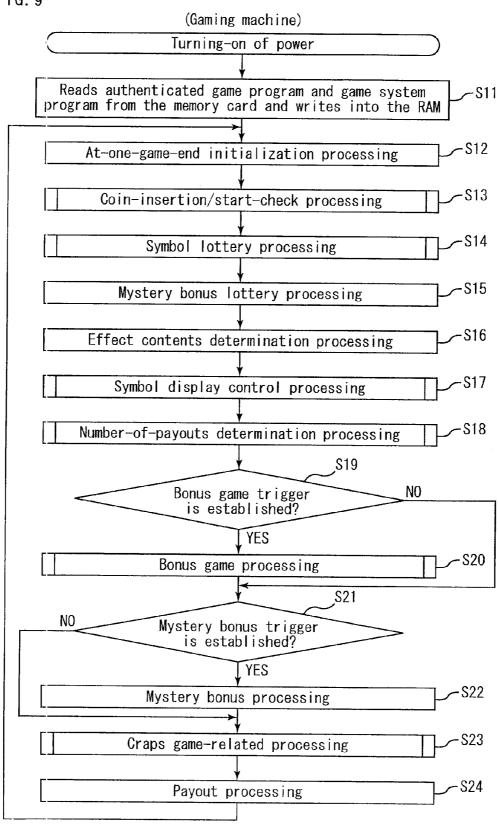
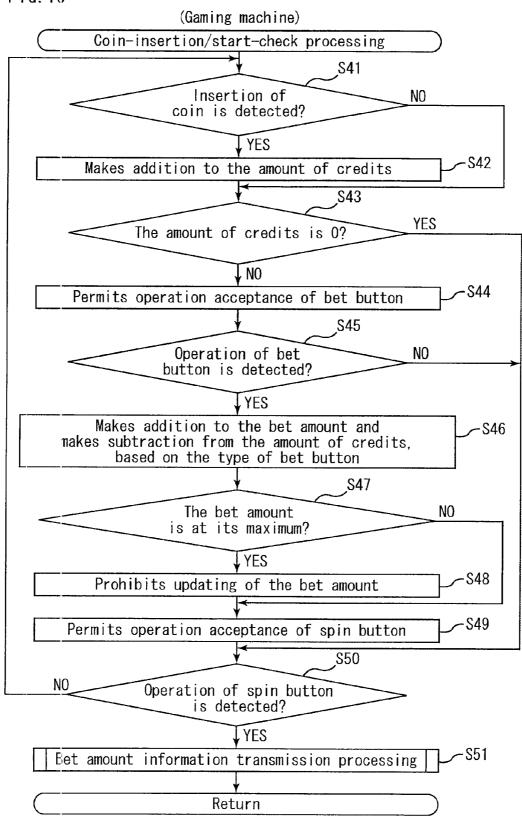


FIG. 10





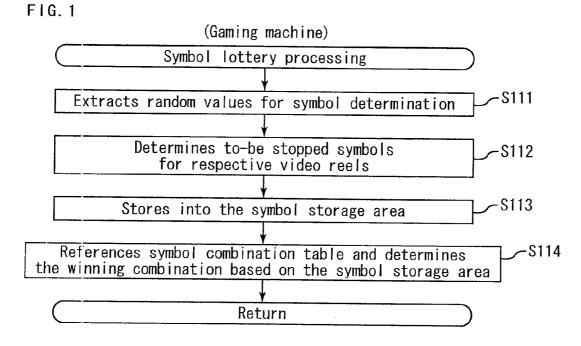


FIG. 12

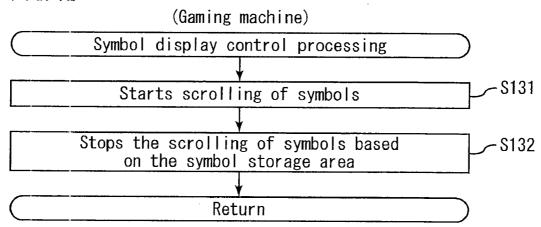
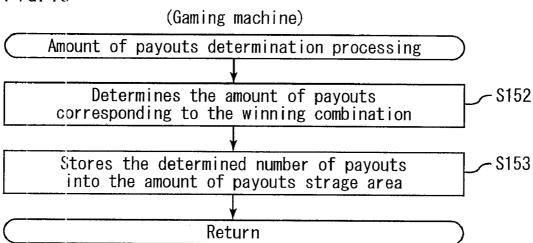
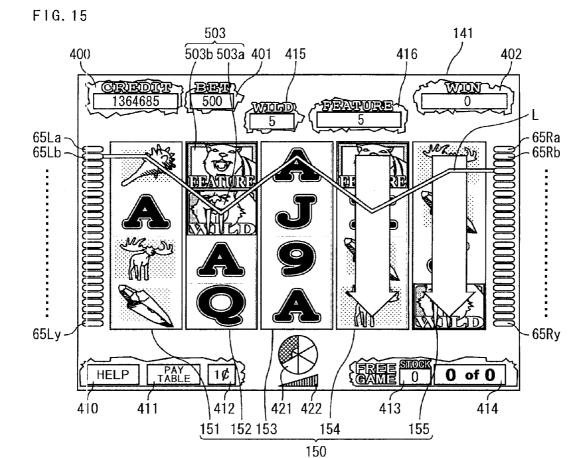
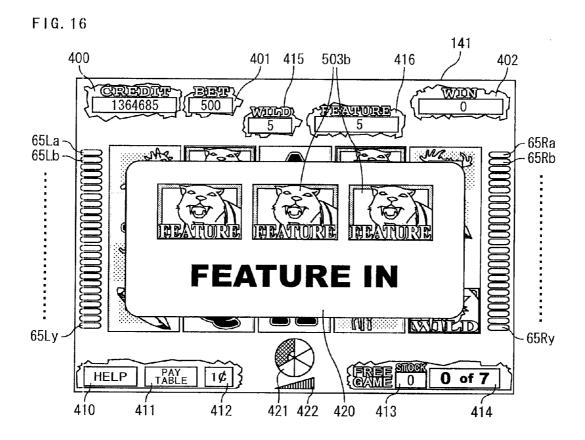


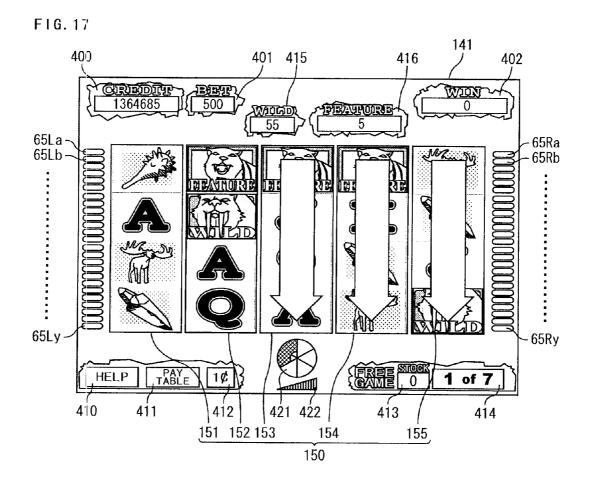
FIG. 13



End







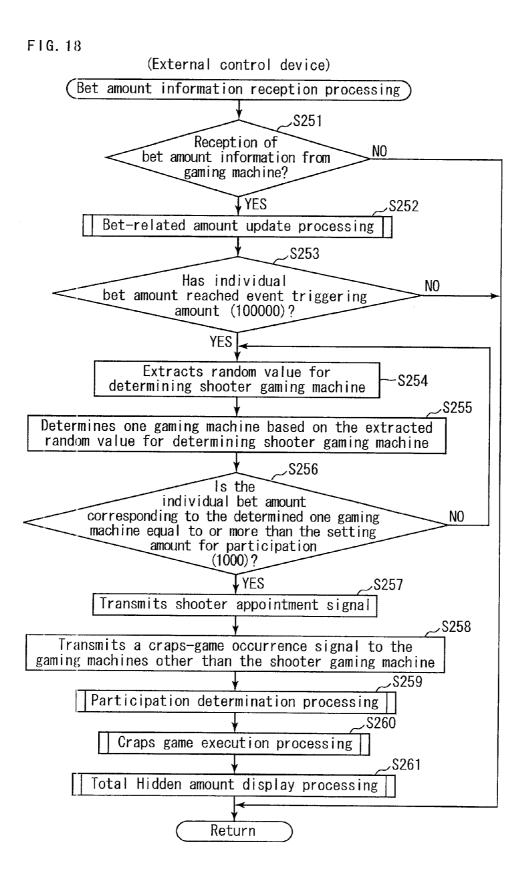


FIG. 19 (External control device) Bet-related amount update processing S271 Updates the individual bet amount in the gaming machine as the transmission source of the bet amount information S272 Updates total bonus amount S273 Adds the amount corresponding to 14% of the bet amount to the current total prize amount S274 Transmits the updated total prize amount information to the gaming machines S275 Adds the amount corresponding to 2% of the bet amount to the total Hidden amount Return

FIG. 20

Gaming machine	001	002	003	004	005		
Individual bet amount	80000	100000	60000	60000	40000		
Total prize amount			47600				
Total bonus amount	13600						
Total Hidden amount	6800						

FIG. 21

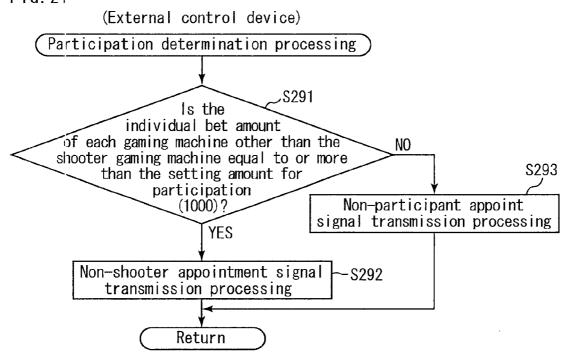
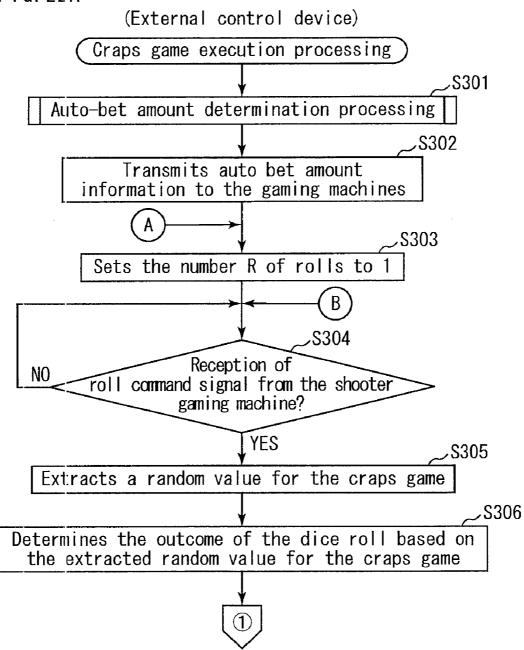


FIG. 22A



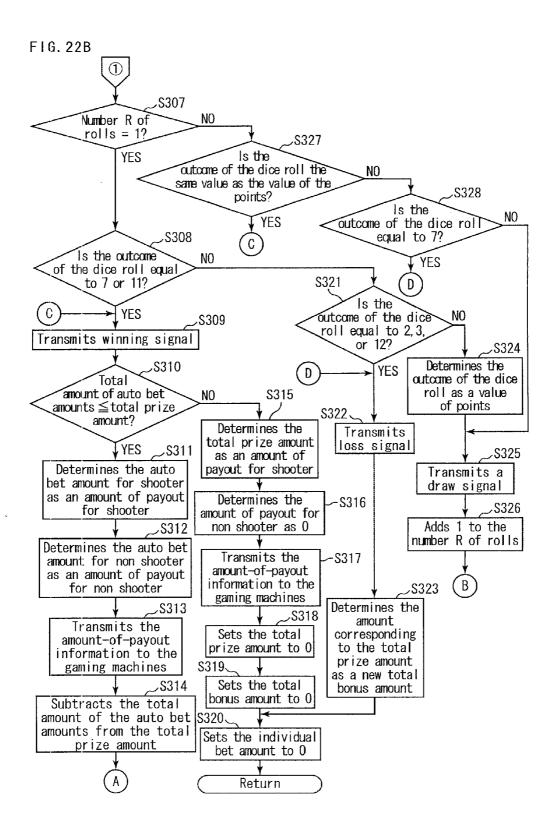


FIG. 23 (External control device) Auto-bet amount determination processing S341 Calculates a basic bet amount for each gaming machine ∠S342 Determines the basic bet amount in each ron-shooter gaming machine as the auto bet amount in that non-shooter gaming machine S343 Calculates the degree of contribution of the shooter gaming machine JS344 Calculates the special bet amount for shooter based on the degree of contribution \_S345 Determines the total amount of the basic bet amount of the shooter gaming machine and the special bet amount for shooter, as the auto bet amount of the shooter gaming machine

Return

# FIG. 24

Basic bet amount = individual bet amount  $\times$  10%

individual bet amount corresponding to the shooter gaming machine

Degree of contribution =

largest individual bet amount among the individual bet amounts of all the gaming machines

Special bet amount for shooter = total bonus amount × degree of contribution

FIG. 25

Gaming machine	001	002	003	004	005
Individual bet amount	80000	100000	60000	60000	40000
Basic bet amount (individual bet amount × 10%)	8000	10000	6000	6000	4000

Gaming machine	001	002	003	004	005
Individual bet amount	80000	100000	60000	60000	40000
Degree of contribution (individual bet amount of specific gaming machine / largest individual bet amount among the individual bet amounts of all the gaming machines)	80%	100%	60%	60%	40%
Total bonus amount	40000				
Special bet amount for shooter (total bonus amount × degree of contribution)	32000	40000	24000	24000	16000

FIG. 26 (External control device) Total Hidden amount display processing S371 Is the total prize amount equal to or less NO. than the predetermined amount (15000)? YES S372 Determines the sum of the total Hidden amount and the total prize amount as a new total prize amount S373 Transmits the updated total prize amount information to the gaming machines S374 Determines the amount corresponding to the total prize amount as a new total bonus amount **S375** Sets the total Hidden amount to 0 Return

Shooter appointment signal reception processing

Shooter appointment signal reception processing

S501

Reception
of shooter appointment
signal from the external control
device?

YES

S502

Craps game-related processing

Return

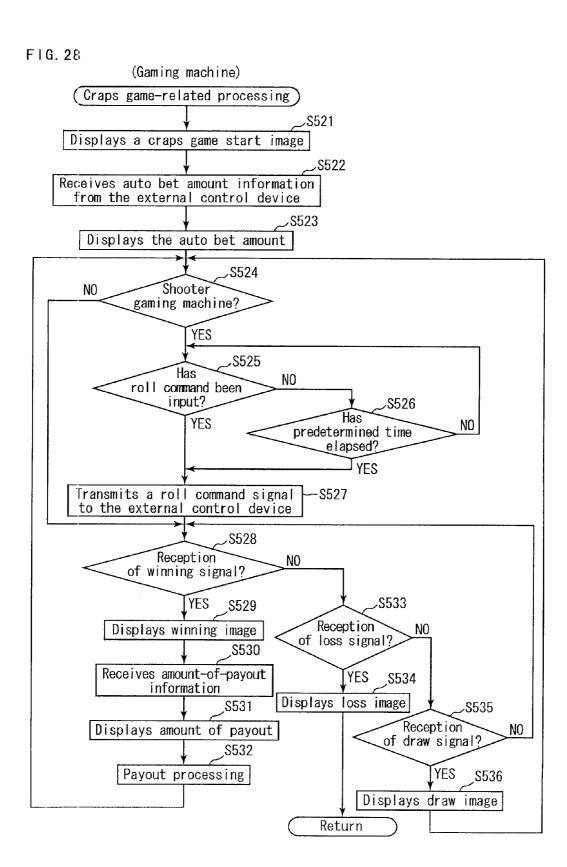
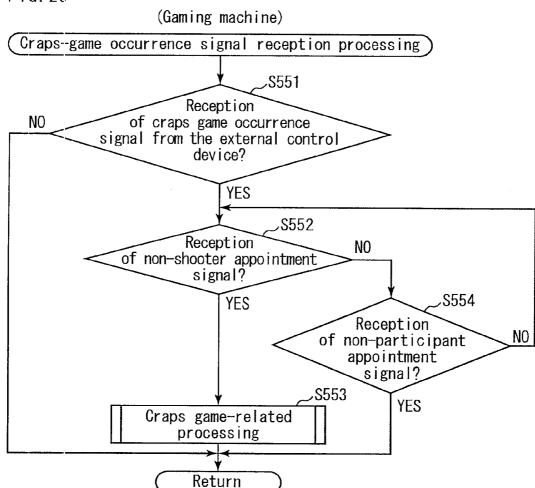


FIG. 29



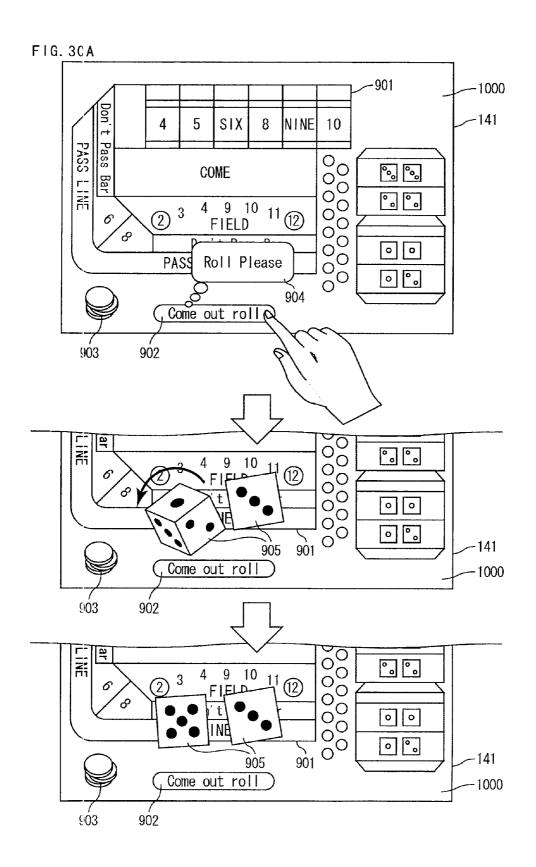
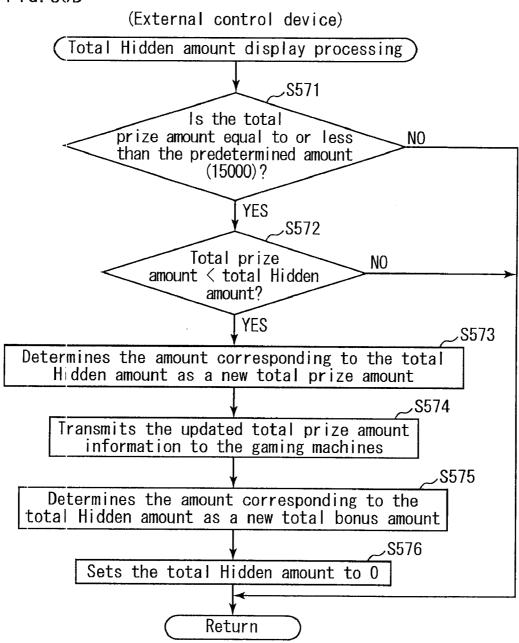


FIG. 30B



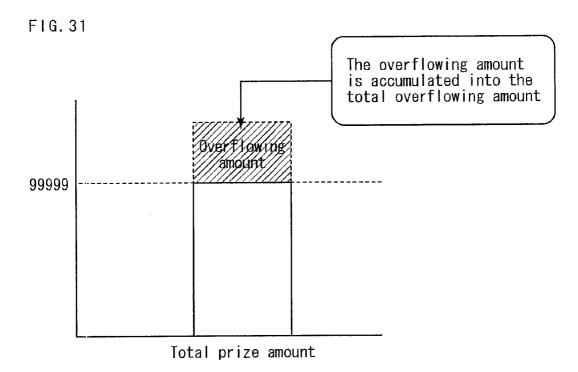


FIG. 32A (External control device) Bet amount information reception processing S2251 Reception of NO bet amount information from gaming machine? YES S2252 Bet-related amount update processing S2253 Has individual NO bet amount reached event triggering amount (100000)? YES Extracts random value for ·S2254 determining shooter gaming machine \_S2255 Determines one gaming machine based on the extracted random value for the shooter gaming machine S2256 Is the individual bet amount corresponding to the determined one gaming NO. machine equal to or more than the setting amount for participation (1000)? YES S2257 Transmits shooter appointment signal S2258 Transmits a craps-game occurrence signal to the gaming machines other than the shooter gaming machine S2259 Participation determination processing S2260 Craps game execution processing S2261 Total overflowing amount display processing Return

FIG. 32B (External control device) Bet-related amount update processing S601 Updates the individual bet amount in the gaming machine as the transmission source of the bet amount information **S602** Updates total bonus amount S603 ls YES full flag set? NO. ∠S605 (Current total prize amount + the amount NO corresponding to 14% of the bet amount) ≤ predetermined amount (= 99999)? S608 Sets the total prize amount to the S604 predetermined YES S606 amount (= 99999) Adds the amount Adds the amount corresponding to 14% S609 corresponding to of the bet amount to Displays the updated the current total 14% of the bet total prize amount overflowing amount amount to the current total S610ر prize amount Sets the amount S607 corresponding to the Transmits the updated value ((current total prize total prize amount amount + the amount information to corresponding to 14% the gaming machines of the bet amount) predetermined amount (=99999)), as the total overflowing amount ∠S611 Sets full flag

Return

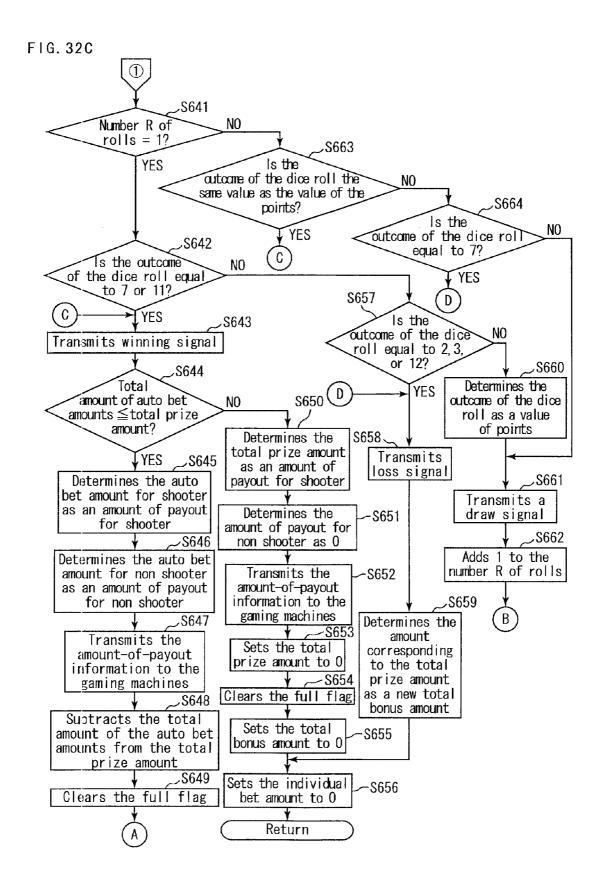


FIG. 32D (External control device) Total Overflowing amount display processing S2371 Is the total prize amount equal to or less NO than the predetermined amount (15000)? YES S2372 Determines the sum of the total overflowing amount and the total prize amount as a new total prize amount S2373 Transmits the updated total prize amount information to the gaming machines S2374ر Determines the amount corresponding to the total prize amount as a new total bonus amount S2375 Sets the total overflowing amount to 0 Return

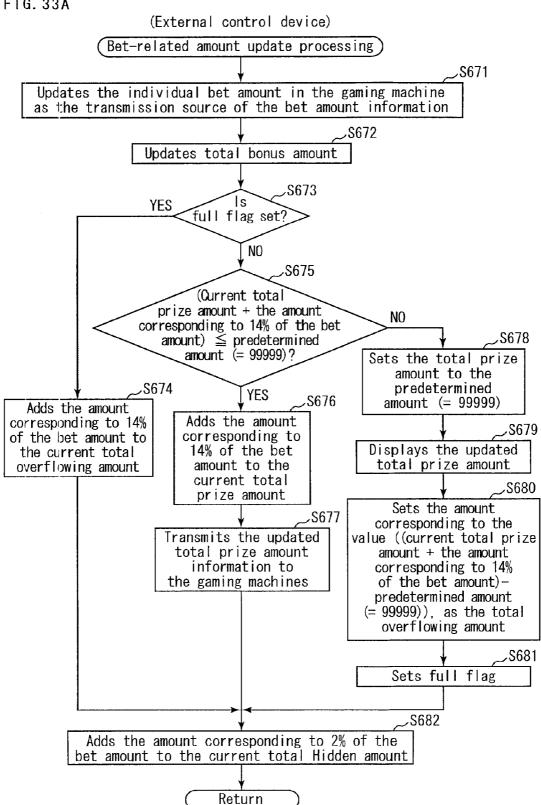


FIG. 33B (External control device) Total overflowing amount display processing) S700 Is the total NO prize amount equal to or less than the predetermined amount (15000)? YES S701ر Determines the sum of the total overflowing amount and the total prize amount as a new total prize amount \$702ر Sets the total overflowing amount to 0JS703 Is the total prize amount YES equal to or less than the predetermined amount S704 (15000)? Determines the sum of the total Hidden amount and the total prize NO. amount as a new total prize amount S705 Sets the total Hidden amount to 0 S706ر Transmits the updated total prize amount information to the gaming machines S707ر Determines the amount corresponding to the total prize amount as a new total bonus amount Return

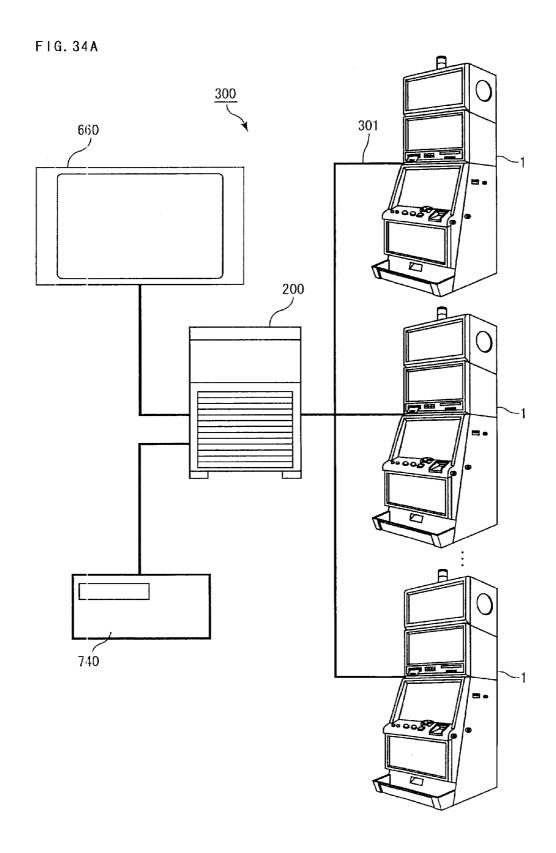


FIG. 34B 660 3310 Please enter values to which you wish to change the displayed values. Accumulation 10% -3302 percentage Setting range of the  $125 \pm 50$  $\pm 50$ -3303event triggering amount Setting amount for 50 -3304participation — Current settings -Setting amount for participation Setting range -3305 Accumulation | \$75-175 10% \$50 of the event percentage triggering amount FIG. 34C

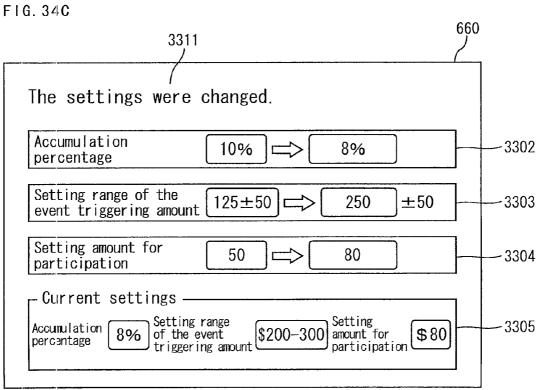


FIG. 35

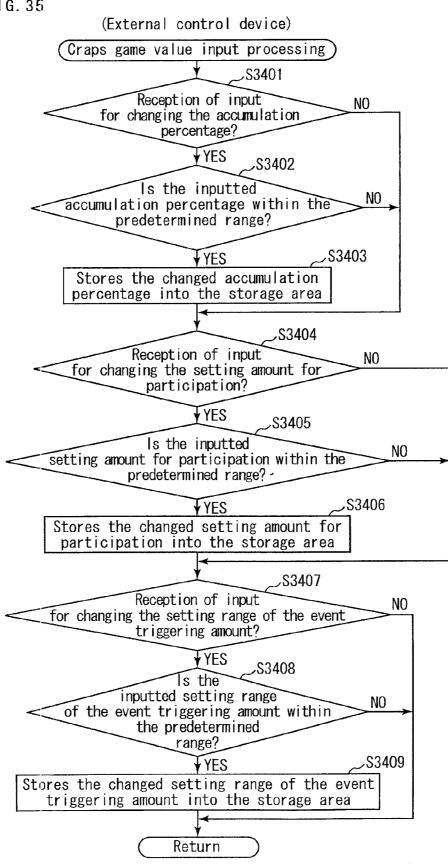
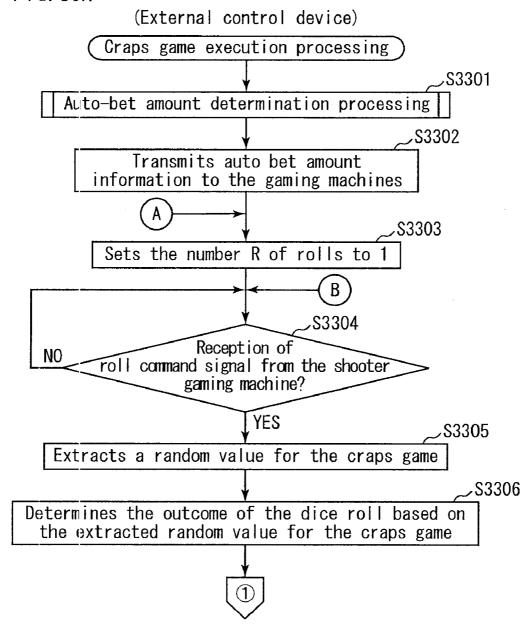
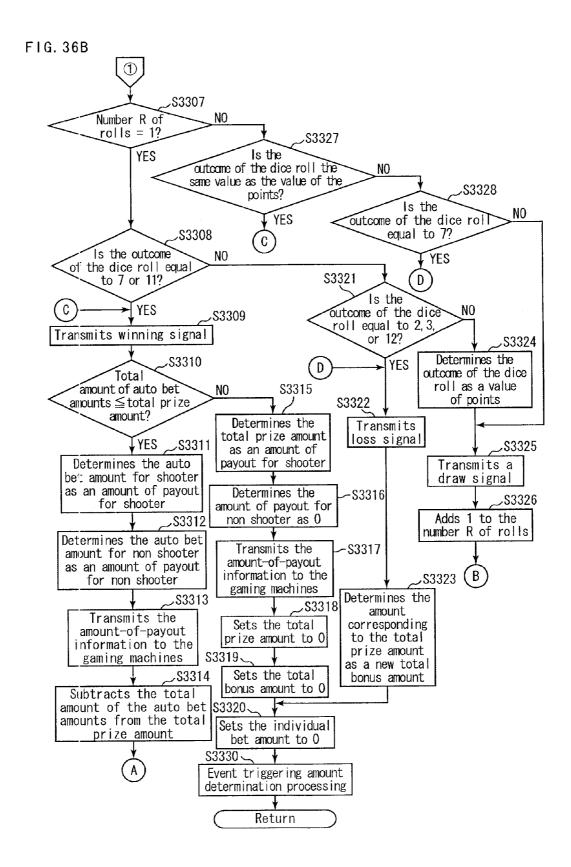
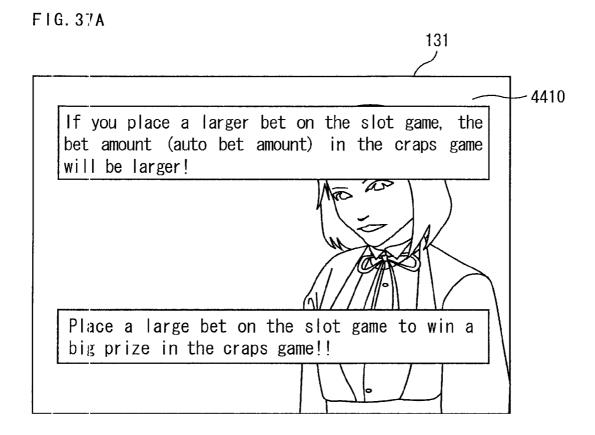
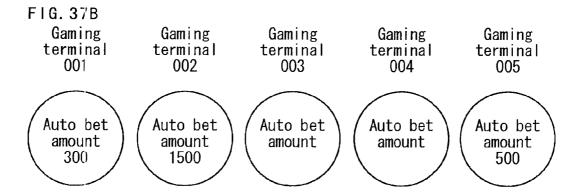


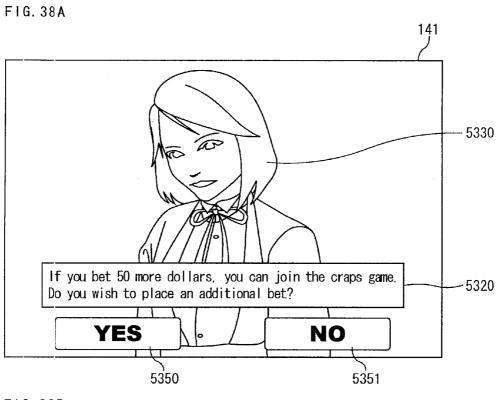
FIG. 36A











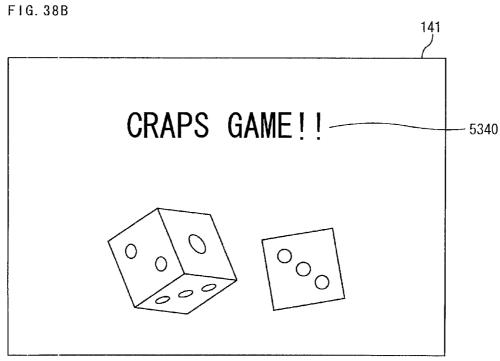


FIG. 39A (External control device) Participation determination processing S5301 Is the individual bet amount of each gaming machine other than the NO shooter gaming machine equal to or more than the setting amount for participation \$5303 (1000)? Additional bet request signal YES transmission processing S5304 Reception YES of additional bet signal? Non-shooter appointment signal NO -S5302 transmission processing S5305 Non-participant appoint signal transmission processing Return

FIG. 39B

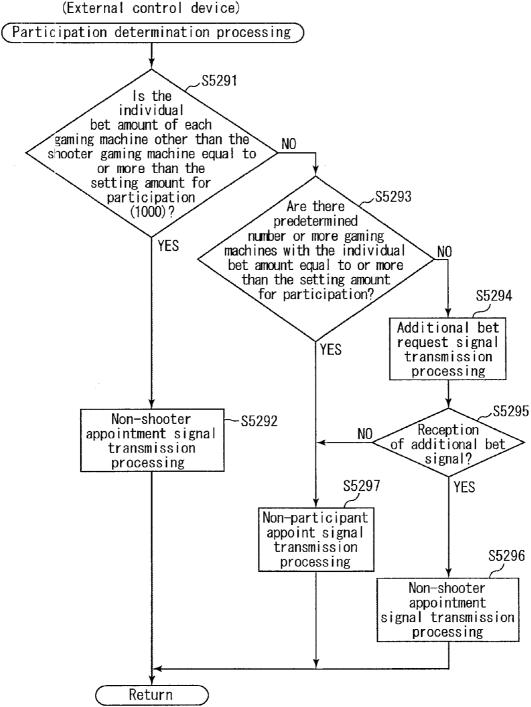
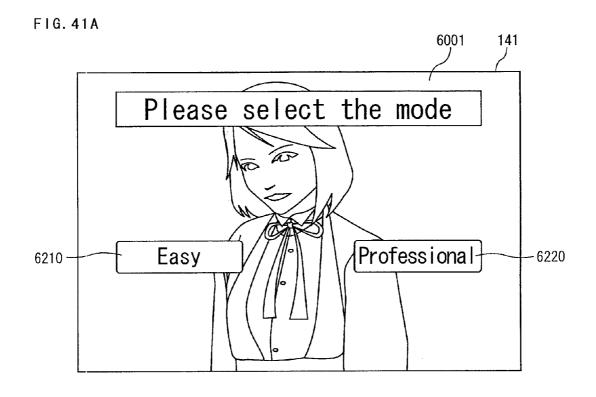
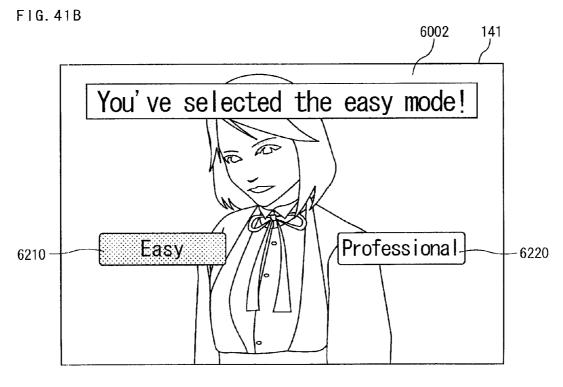
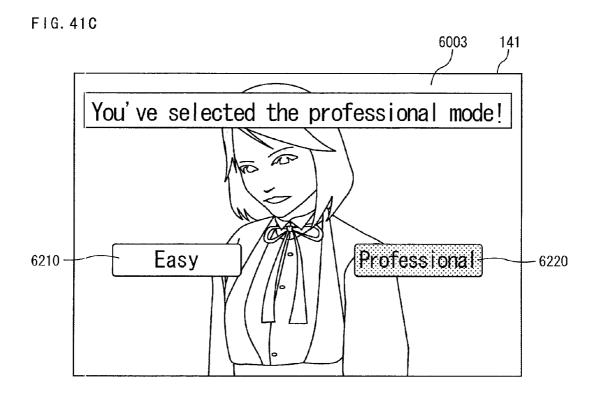
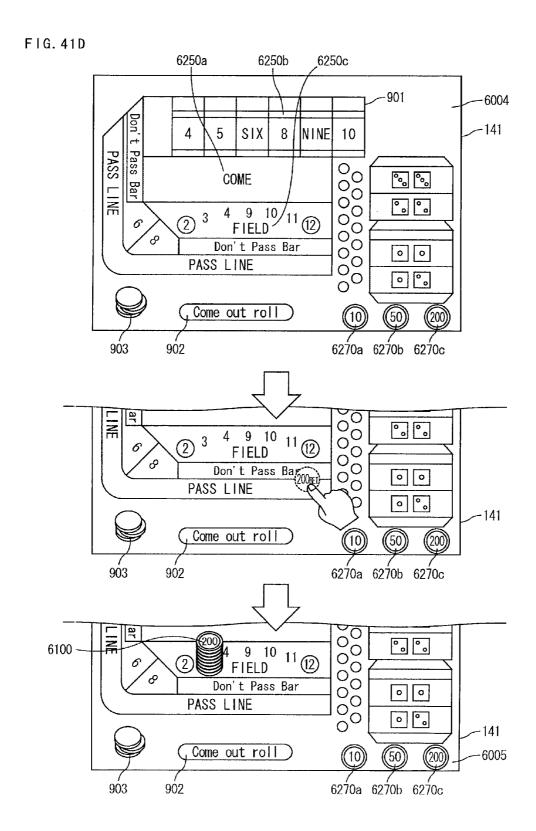


FIG. 40 (Gaming machine) Craps game occurrence signal reception processing S5551 Reception of NO craps game occurrence signal from external control device? YES S5555 Reception NO of additional bet request signal? YES S5556 Input NO of additional bet? YES S5557 Additional bet signal transmission processing S5552 Reception NO of non-shooter appointment signal? S5554 YES Reception of non-participant NO appointment signal? YES **S5553** Craps game-related processing Return

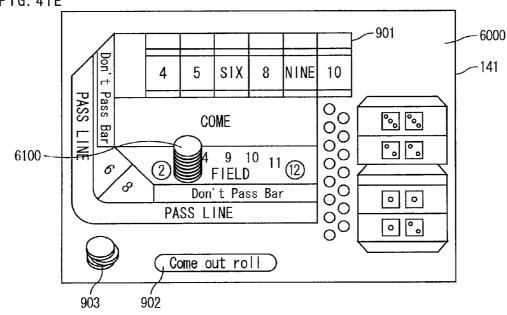


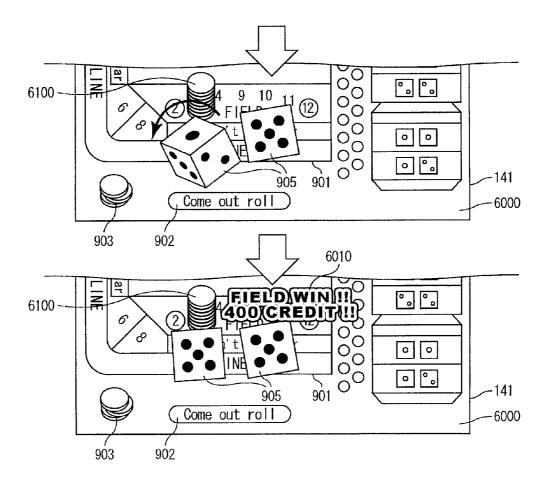












F1G. 42

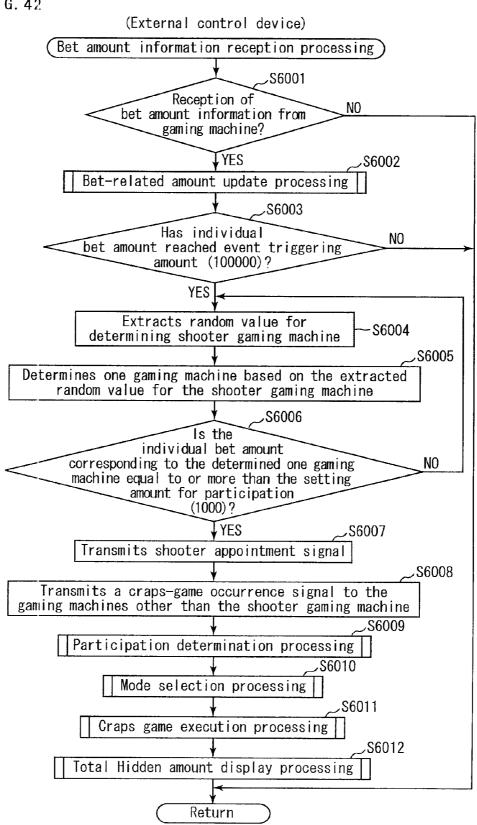


FIG. 43 (External control device) Mode selection processing S6701 Transmits mode selection signal to the gaming machines participating in the craps game S6702 Reception of easy-mode selection signal or professional-mode NO selection signal from every gaming machine participating in the craps game? YES Return

FIG. 44

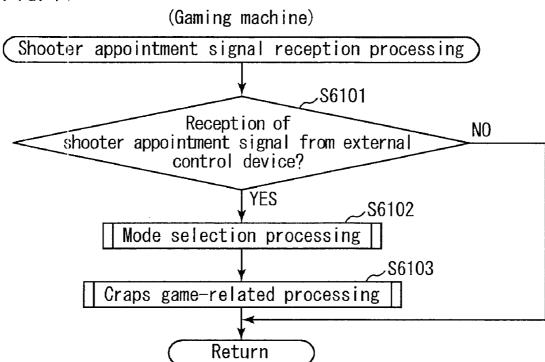


FIG. 45

(Gaming machine) Craps game occurrence signal reception processing S6151 Reception of NO craps game occurrence signal from external control device? YES S6152 Reception NO of non-shooter appointment signal? S6155 YES Reception NO of non-participant appointment signal?

Mode selection processing

Craps game-related processing

Return

YES

S6153

S6154

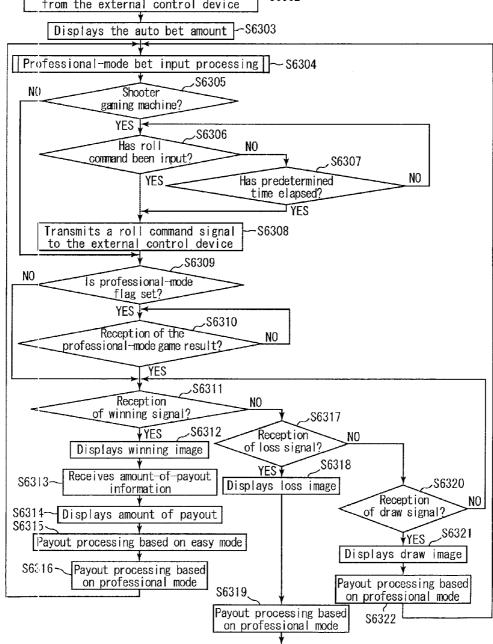
FIG. 46 (Gaming machine) Mode selection processing S6201 Reception of NO mode selection signal from external control device? YES 86202ر Displays mode selection image S6203 Reception NO of professional-mode selection command S6206 signal? Reception of YES NO easy-mode selection command signal? \$6207 YES S6204 Sets professional-mode flag Has predetermined time elapsed? NO. S6205 Transmits YES professional-mode selection signal to external control device S6208 Sets easy-mode flag S6209ر Transmits easy-mode selection signal to external control device Return

(Gaming machine)
(Craps game-related processing)

Displays a craps game start image S6301

Receives auto bet amount information from the external control device S6302

Displays the auto bet amount S6303



Return

FIG. 48 (Gaming machine) Professional-mode bet input processing S6721 Is NO professional-mode flag set? YES S6722 Disp ays professional-mode bet input image S6723 Have the betting method and NO the bet amount in professional mode been S6724 selected? Has NO predetermined time YES elapsed? YES S6725 Transmits professional-mode bet information to external control device Return

FIG. 49 (External control device) Craps game execution processing S6451 Auto-bet amount determination processing S6452 Transmits auto bet amount information to the gaming machines S6453 Sets the number R of rolls to 1 S6454 Receives professional-mode bet information from professional-mode-selecting gaming machines S6455 Reception of NO roll command signal from the shooter gaming machine? YES S6456 Extracts a random value for the craps game S6457 Determines the professional-mode game result based on the extracted random value for the craps game. for each gaming machine as the transmission source of the professional-mode bet information S6458 Transmits the professional-mode game result to each gaming machine as the transmission source of the professional-mode bet information S6459

Determines the outcome of the dice roll based on the extracted random value for the craps game

FIG. 50 (External control device) Auto-bet amount determination processing S6501 Calculates a basic bet amount for each gaming machine \$6502 Determines the basic bet amount in each non-shooter gaming machine as the auto bet amount in that non-shooter gaming machine S6503 Determination processing of distribution amount in each mode S6504 Calculates the degree of contribution of the shooter gaming machine S6505 Calculates the special bet amount for shooter based on the degree of contribution S6506 Determines the total amount of the basic bet amount of the shooter gaming machine and the special bet amount for shooter, as the auto bet amount of the shooter gaming machine Return

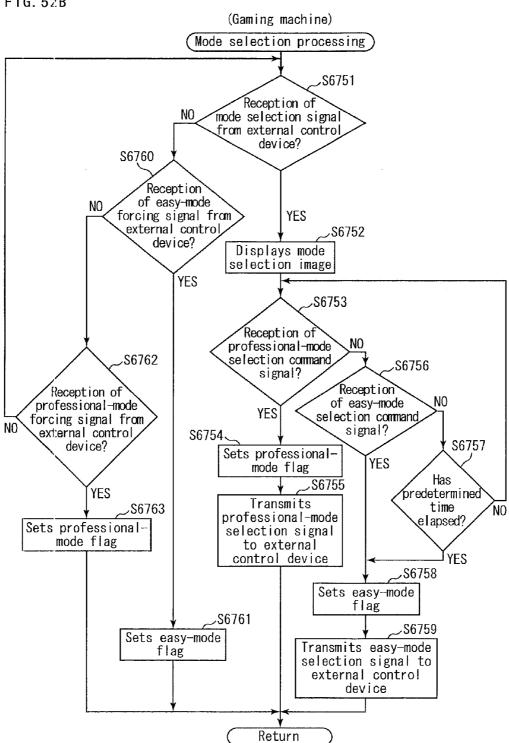
FIG. 51A (External control device) Determination processing of distribution amount in each mode S6601 Determines the number of the professional-mode-selecting gaming machines S6602 Determines professional-mode distribution rate (the number of the professional-mode-selecting gaming machines / the number of participating gaming machines) S6603 Determines professional-mode distribution amount (total bonus amount × professional-mode distribution rate) S6604ر Determines easy-mode distribution amount (total bonus amount - professional-mode distribution amount) Return

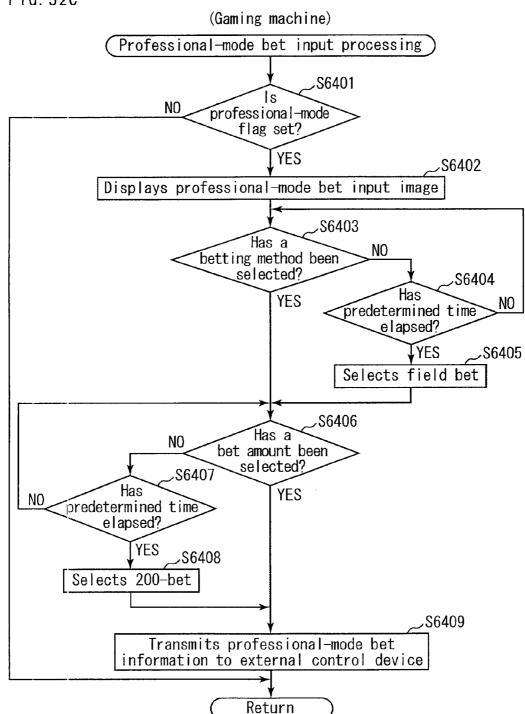
FIG. 51B

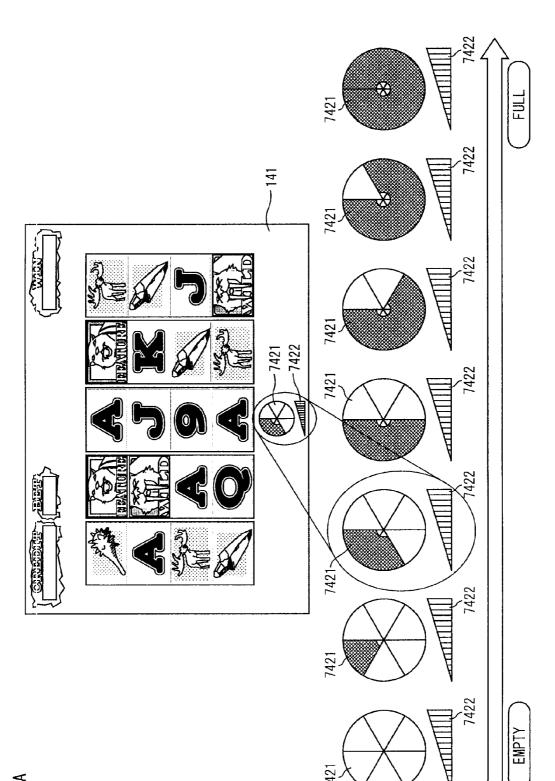
1 1 Q. 3 ED		,			
Gaming machine	001	002	003	004	005
Individual bet amount	80000	100000	60000	60000	40000
Degree of contribution (individual bet amount of specific gaming machine / largest individual bet amount among the individual bet amounts of all the gaming machines)	80%	100%	60%	60%	40%
Mode	Professional	Professional	Easy	Easy	Easy
Total bonus amount	40000				
Professional-mode distribution amount	$16000 (40000 \times \frac{2}{5})$				
Easy-mode distribution amount	$24000 (40000 \times \frac{3}{5})$				
Special bet amount for shooter (mode distribution amount × degree of contribution)	12800 (16000×80%)	16000 (16000 × 100%)	14400 (24000×60%)	14400 (24000×60%)	9600 (24000×40%)

FIG. 52A (External control device) Mode selection processing \$6051 Is the number N of gaming machines participating in the NO craps game equal to or more S6066 than the predetermined Transmits number (6)? easy-mode forcing signal to gaming YES machines S6052 participating in the craps game Sets mode selection order M to 1 Transmits mode selection signal S6053 to gaming machine with the Mth largest individual bet amount S6054 Reception of professional-mode NO selection signal from the S6060 gaming machine? Reception of NO YES easy-mode selection signal S6055 from the gaming machine? Sets the number N<sub>P</sub> of the professional-mode-selecting YES gaming machines to N<sub>P</sub> + 1 S6061 S6056 Sets the number N<sub>E</sub> of S6059 easy-mode-selecting S6065 M=M+1ÍsN-N⊳ gaming machines to N<sub>F</sub>+1 equal to the M=M+1 smallest number L of S6062 participants ĺsN-N<sub>E</sub>` (3)? equal to the \$6058 smallest number L of YES S6064 participants M=N ? N<sub>0</sub> (3)? M=NYES NO \$6057 YES S6063 YES Transmits easy-mode Transmits forcing signal to professional-mode no-mode-selecting forcing signal to gaming machines no-mode-selecting gaming machines Return

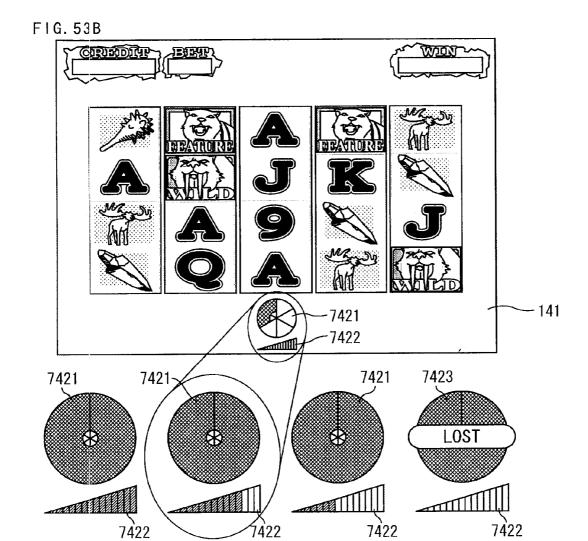
FIG. 52B



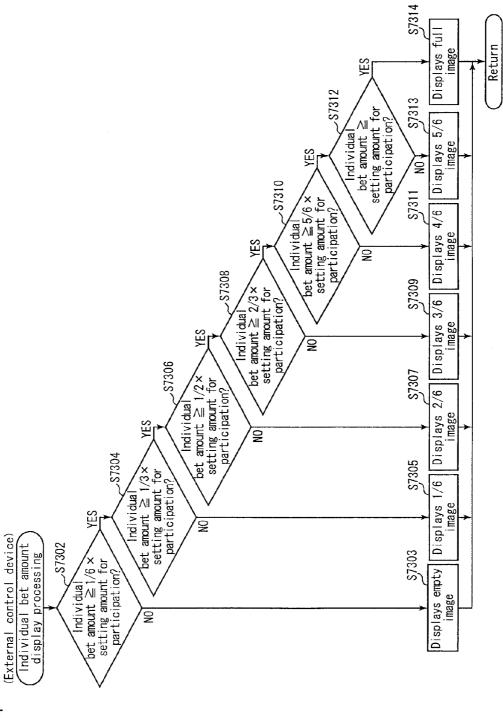




F16. 53



Time



F1G. 54

FIG. 55A (Gaming machine) Timeout display processing S7420ر Individual bet NO amount ≧ setting amount for participation? YES S7421 The number NO of credits = 0? YES S7422 S7426 T-1 Sets T to 15 S7423 S7427ر Displays timeout Displays timeout level based on the value of T level based on the value of T S7424 S7428 NO ls NO T=0? timeout flag set? YES \$7425ر YES S7429ر Sets timeout flag Clears timeout flag Return

FIG. 55B (Gaming machine) Timeout display processing S7401 ls YES timeout flag set? NO S7402 Individual bet NO amount ≧ setting amount for participation? YES S7403 The number NO. of credits = 0? YES S7408 S7404 Sets T to 15 T-1 \$7409ر S7405 Displays timeout level based on Displays timeout level based on the the value of T value of T S7406 NO T=0? YES S7407 Sets timeout flag Return

FIG. 56 (External control device) Participation determination processing S7294 ls YES timeout flag set? NO S7291 Is the individual bet amount of each gaming machine other than the NO shooter gaming machine equal to or more \$7293 than the setting amount for participation (1000)? Non-participant appoint signal transmission processing YES **S7295** Clears the timeout flag Non-shooter appointment signal -S7292 transmission processing Return

FIG. 57A

S7305

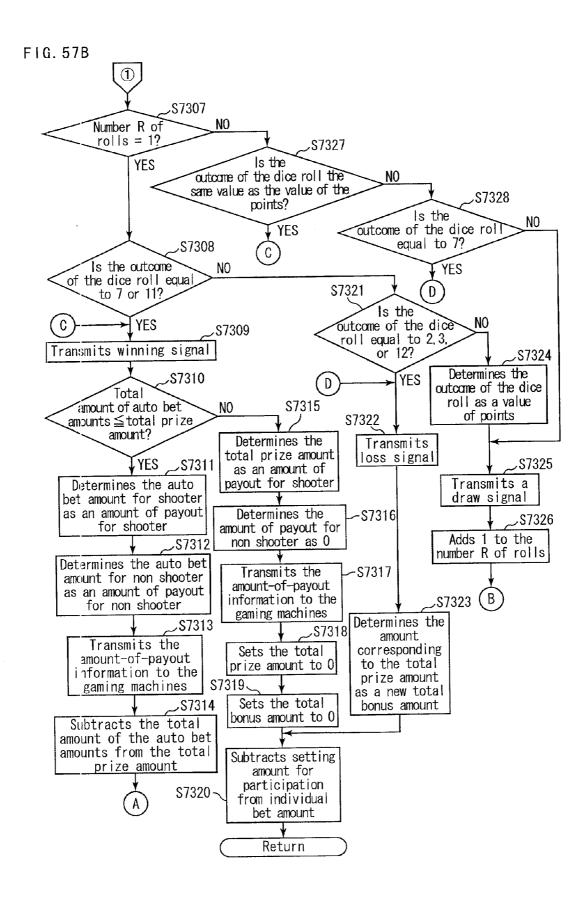
S7306

(External control device) Craps game execution processing S7301 Auto-bet amount determination processing S7302 Transmits auto bet amount information to the gaming machines \$7303 Sets the number R of rolls to S7304 Reception of NO roll command signal from the shooter gaming machine?

Determines the outcome of the dice roll based on the extracted random value for the craps game

Extracts a random value for the craps game

YES



# SERVER, GAMING SYSTEM, AND CONTROL METHOD OF THE SERVER

# CROSS-REFERENCE TO RELATED APPLICATIONS

**[0001]** This application is based upon and claims a priority from the prior Japanese Patent Application No. 2009-214763 filed on Sep. 16, 2009, the entire contents of which are incorporated herein by reference.

## BACKGROUND OF THE INVENTION

[0002] 1. Field of the Invention

[0003] The present invention relates to a server, a gaming system, and a control method of the server.

[0004] 2. Discussion of the Background

[0005] There have been provided gaming machines such as slot machines conducting a payout called jackpot. When a player wins a jackpot, the player can get a large amount of game media at one time. Among such jackpots, there exists a jackpot called progressive jackpot as disclosed in Patent Document 1.

[0006] In a game providing a payout called progressive jackpot, a part of game media inserted by a player is accumulated and when the player wins a progressive jackpot, the accumulated game media is paid out.

[0007] Further, there have been provided gaming systems in which a plurality of gaming machines are linked by a network, as disclosed in Patent Documents 2 to 5. Among such gaming systems, there exists a gaming system in which a part of game media inserted at each gaming machine is stored and the stored game media is paid out to the gaming machine at which the player has won a progressive jackpot.

## [Patent Documents]

[0008] Patent Document	1:	WO	99/03078
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[0009] Patent Document 2: U.S. Pat. No. 5,564,700

[0010] Patent Document 3: U.S. Pat. No. 6,077,162

[0011] Patent Document 4: U.S. Pat. No. 6,375,568

[0012] Patent Document 5: U.S. Pat. No. 6,312,332

# SUMMARY OF THE INVENTION

[0013] When playing on the gaming system conducting a payout related to the jackpot as above described, a player normally plays a game with an expectation for such payouts.

[0014] Against this background, the present inventors have arrived at an idea that addition of a new feature concerning a payout related to a jackpot may produce a new entertainment property.

[0015] An object of the present invention is to provide a server, a gaming system, and a control method of the server provided with a new entertainment property.

[0016] In order to achieve the above object, the present invention provides the following.

[0017] (1) A server comprising

[0018] a processor and a memory device provided with a first storage area and a second storage area and

[0019] being capable of communicating with a gaming machine,

[0020] the processor programmed to execute the processing of:

[0021] (A) storing a data in accordance with an amount of game media betted in the gaming machine as a first resource data into the first storage area provided in the memory device;

[0022] (B) storing a second resource data indicative of an amount of game media and being different from the first resource data, into the second storage area provided in the memory device;

[0023] (C) providing game media to the gaming machine when a predetermined condition is satisfied, based on the first resource data stored in the first storage area, and reducing an amount of game media indicated by the first resource data stored in the first storage area;

[0024] (D) determining whether or not the amount of game media indicated by the first resource data stored in the first storage area has been reduced in the processing (C) to a predetermined amount or less; and

[0025] (E) providing game media to the gaming machine when the predetermined condition is satisfied after determining in the processing (D) that the amount of game media has been reduced to the predetermined amount or less, based on the second resource data stored in the processing (B) into the second storage area.

[0026] According to the invention of (1), when a predetermined condition is satisfied (e.g. when the total amount of game media betted in one gaming machine has reached the predetermined amount), game media is provided based on the first resource data and the amount of game media indicated by the first resource data is reduced. Namely, the game media indicated by the first resource data is used as a resource of the payout. Further, when the predetermined condition is satisfied after the amount of game media indicated by the first resource data has been reduced to the predetermined amount or less, game media is provided based on the second resource data

[0027] Accordingly, even when the amount of game media indicated by the first resource data becomes small, it is possible to pay out game media by using the game media indicated by the second resource data as a resource. Consequently, it is possible to maintain the player's expectation for the payout of game media to be conducted when the predetermined condition is satisfied.

[0028] The present invention provides the following.

[0029] (2) The server according to (1) mentioned above,

[0030] wherein

[0031] the processing (C) includes

[0032] providing game media to the gaming machine in a common game to be executed when the predetermined condition is satisfied, based on the first resource data stored in the first storage area, and reducing the amount of game media indicated by the first resource data stored in the first storage area, and

[0033] the processing (E) includes

[0034] providing game media to the gaming machine in the common game, when the predetermined condition is satisfied after determining in the processing (D) that the amount of game media has been reduced to the predetermined amount or less, based on the second resource data stored in the processing (B) into the second storage area.

[0035] According to the invention of (2), a common game is executed when the predetermined condition is satisfied and game media is provided in the common game. Accordingly, the player is allowed to play a game with an expectation for an occurrence of the common game.

[0036] Since it is possible to pay out game media by using the game media indicated by the second resource data as a resource even when the amount of game media indicated by

the first resource data becomes small, it is possible to maintain the player's expectation for the common game.

[0037] The present invention provides the following.

[0038] (3) The server according to (1) mentioned above,

[0039] wherein

[0040] the processor is further programmed to execute the processing of

[0041] (F) outputting an image or sound for notifying a player only of the amount of game media indicated by the first resource date, out of the amounts of game media indicated by the first resource data and the amounts of game media indicated by the second resource data, from an output device connected to the server or an output device provided in the gaming machine,

[0042] the processing (E) includes

[0043] (E-1) outputting an image or sound for notifying the player of the amount of game media based on the second resource data stored in the processing (B) into the second storage area from the output device instead of executing the processing (F), when determining in the processing (D) that the amount of game media has been reduced to the predetermined amount or less, and

[0044] (E-2) providing game media to the gaming machine when the predetermined condition is satisfied after executing the processing (E-1), based on the second resource data stored in the processing (B) into the second storage area.

[0045] According to the invention of (3), an image or sound notifies the player of the amount of game media indicated by the first resource data. This allows the player to know the amount of game media that may be provided when the predetermined condition is satisfied. A larger amount of game media indicated by the image or sound may normally increase the player's expectation for the satisfaction of the predetermined condition.

[0046] On the other hand, the predetermined condition is satisfied to reduce the amount of game media indicated by the first resource data, the player's expectation for another satisfaction of the predetermined condition may be reduced. In this regard, according to the invention of (3), the player is notified of the amount of game media indicated by the second resource data after the amount of game media indicated by the first resource data has been reduced to the predetermined amount or less. This maintains the player's expectation for the satisfaction of the predetermined condition.

[0047] Further, according to the invention of (3), the player is notified of the amount of game media indicated by the first resource data until the amount of game media indicated by the first resource data is reduced to the predetermined amount. Then, the player is suddenly notified of the amount of game media indicated by the second resource data when the amount of game media indicated by the first resource data has been reduced to the predetermined amount or less. This may surprise the player and the player may feel as if he or she has found secret savings. As a result, it is possible to provide a more interesting game to allow the player to be absorbed in the game.

[0048] The present invention provides the following.

[0049] (4) A gaming system comprising:

[0050] a plurality of gaming machines;

[0051] a server including a processor and a memory device provided with a first storage area and a second storage area; and

[0052] a network enabling communication between the gaming machines and the server,

[0053] the processor programmed to execute the processing of:

[0054] (A) storing a data in accordance with an amount of game media betted in each of the gaming machines as a first resource data, into the first storage area provided in the memory device;

[0055] (B) storing a second resource data indicative of an amount of game media and being different from the first resource data into the second storage area provided in the memory device;

[0056] (C) providing game media to each of the gaming machines when a predetermined condition is satisfied, based on the first resource data stored in the first storage area, and reducing an amount of game media indicated by the first resource data stored in the first storage area;

[0057] (D) determining whether or not the amount of game media indicated by the first resource data stored in the first storage area has been reduced in the processing (C) to a predetermined amount or less; and

[0058] (E) providing game media to each of the gaming machines when the predetermined condition is satisfied after determining in the processing (D) that the amount of game media has been reduced to the predetermined amount or less, based on the second resource data stored in the processing (B) into the second storage area.

[0059] According to the invention of (4), when a predetermined condition is satisfied (e.g. when the total amount of game media betted in one gaming machine has reached the predetermined amount), game media is provided based on the first resource data and the amount of game media indicated by the first resource data is reduced. Namely, the game media indicated by the first resource data is used as a resource of the payout. Further, when the predetermined condition is satisfied after the amount of game media indicated by the first resource data has been reduced to the predetermined amount or less, game media is provided based on the second resource data.

[0060] Accordingly, even when the amount of game media indicated by the first resource data becomes small, it is possible to pay out game media by using the game media indicated by the second resource data as a resource. Consequently, it is possible to maintain the player's expectation for the payout of game media to be conducted when the predetermined condition is satisfied.

[0061] The present invention provides the following.

[0062] (5) The gaming system according to (4) mentioned above,

[0063] wherein

[0064] each of the gaming machines comprises an input device and a controller,

[0065] the controller is programmed to execute the processing of:

[0066] (a) accepting an input made with use of the input device for betting game media; and

[0067] (b) transmitting bet information indicative of an amount of the game media betted in the processing (a) to the processor,

[0068] the processor is further programmed to execute the processing of

[0069] (F) receiving the bet information transmitted in the processing (b), and

[0070] the processing (A) includes

[0071] storing a data indicative of an amount of game media obtained by adding a part of the amount of game media

indicated by the bet information received in the processing (F) to the amount of game media indicated by the first resource data stored in the first storage area provided in the memory device, as a new first resource data into the first storage area.

[0072] According to the invention of (5), a part of the amount of game media betted in each of the gaming machines is accumulated. The first resource data indicates the amount of game media thus accumulated. When the predetermined condition is satisfied, game media is provided based on the first resource data. Accordingly, the player having received the game media when the predetermined condition is satisfied may feel as if a part of the game media betted by other players is paid out to him or her. This may offer a sense of superiority and satisfaction to the player.

[0073] The present invention provides the following.

[0074] (6) The gaming system according to (4) mentioned above.

[0075] wherein

[0076] each of the gaming machines comprises an input device and a controller,

[0077] the controller is programmed to execute the processing of:

[0078] (a) accepting an input made with use of the input device for betting game media;

[0079] (b) transmitting bet information indicative of an amount of the game media betted in the processing (a) to the processor,

[0080] the processor is further programmed to execute the processing of

[0081] (F) receiving the bet information transmitted in the processing (b), and

[0082] the processing (B) includes

[0083] storing a data indicative of an amount of game media obtained by adding a part of the amount of game media indicated by the bet information received in the processing (F) to the amount of game media indicated by the second resource data stored in the second storage area provided in the memory device, as a new second resource data into the second storage area.

**[0084]** According to the invention of (6), a part of the amount of game media betted in each of the gaming machines is accumulated. The second resource data indicates the amount of game media thus accumulated. Accordingly, every time the player places a bet in the gaming machine, the amount of game media indicated by the second resource data is definitely increased. Consequently, the player can prepare for the case where the amount of the game media indicated by the first resource data becomes small.

[0085] The present invention provides the following.

[0086] (7) The gaming system according to (5) mentioned above.

[0087] wherein

[0088] the processing (A) includes

[0089] storing a data indicative of the amount of game media obtained by adding a predetermined percentage of the amount of game media indicated by the bet information received in the processing (F) to the amount of game media indicated by the first resource data stored in the first storage area provided in the memory device, as a new first resource data into the first storage area, and

[0090] the processing (B) includes

[0091] storing a data indicative of an amount of game media obtained by adding a specific percentage, which is

different from the predetermined percentage, of the amount of game media indicated by the bet information received in the processing (F) to the amount of game media indicated by the second resource data stored in the second storage area provided in the memory device, as a new second resource data into the second storage area.

[0092] According to the invention of (7), a predetermined percentage of the amount of game media betted in each of the gaming machines is accumulated. The first resource data indicates the amount of game media thus accumulated. When the predetermined condition is satisfied, game media is provided based on such first resource data. Accordingly, the player having received the game media when the predetermined condition is satisfied may feel as if a part of the game media betted by other players is paid out to him or her. This may offer a sense of superiority and satisfaction to the player. [0093] Further, according to the invention of (7), a specific percentage of the amount of game media betted in each of the gaming machines is accumulated. The second resource data indicates the amount of game media thus accumulated. Accordingly, every time the player places a bet in the gaming machine, the amount of game media indicated by the second resource data is definitely increased. Consequently, the player can prepare for the case where the amount of the game media indicated by the first resource data becomes small.

[0094] The present invention provides the following.

[0095] (8) The gaming system according to (4) mentioned above.

[0096] wherein

[0097] each of the gaming machines comprises an input device and a controller,

[0098] the controller is programmed to execute the processing of:

[0099] (a) accepting an input made with use of the input device for betting game media; and

[0100] (b) transmitting bet information indicative of an amount of the game media betted in the processing (a) to the processor.

[0101] the processor is further programmed to execute the processing of:

[0102] (F) receiving the bet information transmitted in the processing (b); and

[0103] (G) accumulating an amount in accordance with the amount of game media indicated by the bet information received in the processing (F), in association with a gaming machine as a transmission source of the bet information, and [0104] the processing (C) includes

[0105] providing game media to each of the gaming machines when the predetermined condition is satisfied, in an amount corresponding to an accumulated bet amount in the corresponding gaming machine among the accumulated bet amounts corresponding to the amounts of game media each accumulated in the processing (G) in association with one of the gaming machines, and subtracting the amount corresponding to the accumulated bet amount from the amount of game media indicated by the first resource data stored in the first storage area.

[0106] According to the invention of (8), the amount of game media to be offered to the gaming machine when the predetermined condition is satisfied corresponds to the accumulated bet amount in the corresponding gaming machine. Accordingly, if the player bets a larger amount of game media, he or she can receive a larger amount of game media when the predetermined condition is satisfied. Therefore, it is

possible to encourage the player to bet a large amount of game media. As a result, it is possible to facilitate the profit increase of the game facility.

[0107] However, in the case where the player having betted a large amount of game media receives game media when the predetermined condition is satisfied, the amount of game media indicated by the first resource data is reduced correspondingly. Then, players' expectation for the satisfaction of the predetermined condition may be reduced.

[0108] In this regard, according to the invention of (8), even in the case where the amount of game media indicated by the first resource data becomes small, the game media indicated by the second resource data can be used as a resource of the payout. Therefore, it is possible to maintain the player's expectation for the payout of game media to be conducted when the predetermined condition is satisfied.

[0109] The present invention provides the following.

[0110] (9) The gaming system according to (4) mentioned above,

[0111] wherein

[0112] the processing (C) includes

[0113] providing game media to each of the gaming machines in a common game to be executed when the predetermined condition is satisfied, based on the first resource data stored in the first storage area, and reducing the amount of game media indicated by the first resource data stored in the first storage area,

[0114] the processing (E) includes

[0115] providing game media to each of the gaming machines in the common game, when the predetermined condition is satisfied after determining in the processing (D) that the amount of game media has been reduced to the predetermined amount or less, based on the second resource data stored in the processing (B) into the second storage area.

[0116] According to the invention of (9), a common game is executed when the predetermined condition is satisfied, and game media is provided in the common game. Accordingly, the player is allowed to play a game with an expectation for an occurrence of the common game.

[0117] In addition, even when the amount of game media indicated by the first resource data becomes small, game media indicated by the second resource data can be used as a resource of the payout, and therefore, it is possible to maintain the player's expectation for the common game.

[0118] The present invention provides the following.

[0119] (10) The gaming system according to (4) mentioned above,

[0120] wherein

[0121] the gaming system further includes an output device connected to the server or an output device provided in each of the gaming machines,

 $\boldsymbol{[0122]}$  —the processor is further programmed to execute the processing of

[0123] (F) outputting an image or sound for notifying a player only of the amount of game media indicated by the first resource data, out of the amounts of game media indicated by the first resource data and the amounts of game media indicated by the second resource data, from the output device,

[0124] the processing (E) includes

[0125] (E-1) outputting an image or sound for notifying the player of the amount of game media based on the second resource data stored in the processing (B) into the second storage area from the output device instead of executing the

processing (F), when determining in the processing (D) that the amount of game media has been reduced to the predetermined amount or less, and

[0126] (E-2) providing game media to each of the gaming machines when the predetermined condition is satisfied after executing the processing (E-1), based on the second resource data stored in the second storage area in the processing (B).

[0127] According to the invention of (10), an image or sound notifies the player of the amount of game media indicated by the first resource data. This allows the player to know the amount of game media that may be provided when the predetermined condition is satisfied. A larger amount of game media indicated by the image or sound may normally increase the player's expectation for the satisfaction of the predetermined condition.

[0128] On the other hand, when the predetermined condition has been satisfied to reduce the amount of game media indicated by the first resource data, the player's expectation for another satisfaction of the predetermined condition may be reduced. In this regard, according to the invention of (10), the player is notified of the amount of game media indicated by the second resource data after the amount of game media indicated by the first resource data is reduced to the predetermined amount or less. This maintains the player's expectation for the satisfaction of the predetermined condition.

**[0129]** Further, according to the invention of (10), the player is notified of the amount of game media indicated by the first resource data until the amount of game media indicated by the first resource data is reduced to the predetermined amount. Then, the player is suddenly notified of the amount of game media indicated by the second resource data when the amount of game media indicated by the first resource data has been reduced to the predetermined amount or less. This may surprise the player and the player may feel as if he or she has found secret savings. As a result, it is possible to provide a more interesting game to allow the player to be absorbed in the game.

[0130] The present invention provides the following.

[0131] (11) A control method of a server comprising a processor and a memory device provided with a first storage area and a second storage area and being capable of communicating with a gaming machine,

[0132] the method comprising:

[0133] (A) the processor storing a data in accordance with an amount of game media betted in the gaming machine as a first resource data into the first storage area provided in the memory device;

[0134] (B) the processor storing a second resource data indicative of an amount of game media and being different from the first resource data, into the second storage area provided in the memory device;

[0135] (C) the processor providing game media to the gaming machine when a predetermined condition is satisfied, based on the first resource data stored in the first storage area, and reducing the amount of game media indicated by the first resource data stored in the first storage area;

[0136] (D) the processor determining whether or not the amount of game media indicated by the first resource data stored in the first storage area has been reduced in the step (C) to a predetermined amount or less; and

[0137] (E) the processor providing game media to the gaming machine when the predetermined condition is satisfied after determining in the step (D) that the amount of game

media has been reduced to the predetermined amount or less, based on the second resource data stored in the second storage area in the step (B).

[0138] According to the invention of (11), when a predetermined condition is satisfied (e.g. when the total amount of game media betted in one gaming machine has reached the predetermined amount), game media is provided based on the first resource data and the amount of game media indicated by the first resource data is reduced. Namely, the game media indicated by the first resource data is used as a resource of the payout. Further, when the predetermined condition is satisfied after the amount of game media indicated by the first resource data has been reduced to the predetermined amount or less, game media is provided based on the second resource data

[0139] Accordingly, even when the amount of game media indicated by the first resource data becomes small, it is possible to pay out game media by using the game media indicated by the second resource data as a resource. Consequently, it is possible to maintain the player's expectation for the payout of game media to be conducted when the predetermined condition is satisfied.

[0140] The present invention provides the following.

[0141] (12) A server comprising

[0142] a processor and a memory device provided with a first storage area and a second storage area and

[0143] being capable of communicating with a gaming machine.

[0144] the processor programmed to execute the processing of:

[0145] (A) storing a data in accordance with an amount of game media betted in the gaming machine as a first resource data into the first storage area provided in the memory device;

[0146] (B) determining whether or not an amount of game media indicated by the first resource data stored in the processing (A) into the first storage area has reached a predetermined amount;

[0147] (C) storing a data in accordance with an amount of game media betted in the gaming machine after determining in the processing (B) that the amount of game media indicated by the first resource data has reached the predetermined amount, as an overflow data into the second storage area provided in the memory device; and

[0148] (D) providing game media to the gaming machine when a predetermined condition is satisfied, based on the overflow data stored in the processing (C) into the second storage area.

[0149] According to the invention of (12), the amount in accordance with the amount of game media betted in the gaming machine is accumulated in the first storage area. The first resource data indicates the amount of game media thus accumulated

[0150] After the amount of game media indicated by the first resource data has reached the predetermined amount, the amount in accordance with the amount of game media betted in the gaming machine is accumulated in the second storage area. The overflow data indicates the amount of game media thus accumulated. When the predetermined condition is satisfied, game media is provided based on the overflow data.

[0151] Accordingly, even after the amount of game media indicated by the first resource data has reached the predetermined amount, game media betted in the gaming machine is accumulated ongoingly. The accumulated game media is used as a resource of the payout when the predetermined

condition is satisfied. This can surprise the player who may think that the accumulation of game media has been terminated because the amount of game media indicated by the first resource data has reached the predetermined amount. As a result, it is possible to provide a more interesting game to allow the player to be absorbed in the game.

[0152] The present invention provides the following.

[0153] (13) The server according to (12) mentioned above,

[0154] wherein

[0155] the processor is further programmed to execute the processing of:

[0156] (E) providing game media to the gaming machine when the predetermined condition is satisfied, based on the first resource data stored in the first storage area, and reducing the amount of game media indicated by the first resource data stored in the first storage area; and

[0157] (F) determining whether or not the amount of game media indicated by the first resource data stored in the first storage area has been reduced in the processing (E) to a predetermined amount, and

[0158] the processing (D) includes

[0159] providing game media to the gaming machine when the predetermined condition is satisfied after determining in the processing (F) that the amount of game media indicated by the first resource data has been reduced to the predetermined amount or less, based on the overflow data stored in the processing (C) into the second storage area.

[0160] According to the invention of (13), when the predetermined condition is satisfied, game media is provided based on the first resource data and the amount of game media indicated by the first resource data is reduced. Namely, the game media indicated by the first resource data is used as a resource of the payout. Further, when the predetermined condition is satisfied after the amount of game media indicated by the first resource data has been reduced to the predetermined amount or less, game media is provided based on the overflow data.

[0161] Accordingly, even when the amount of game media indicated by the first resource data becomes small, it is possible to pay out game media by using the game media indicated by the overflow data as a resource. Consequently, it is possible to maintain the player's expectation for the payout of game media to be conducted when the predetermined condition is satisfied.

[0162] The present invention provides the following.

[0163] (14) The server according to (13) mentioned above,

[0164] wherein

[0165] the processing (E) includes

[0166] providing game media to the gaming machine in a common game to be executed when the predetermined condition is satisfied, based on the first resource data stored in the first storage area, and reducing the amount of game media indicated by the first resource data stored in the first storage area, and

[0167] the processing (D) includes

[0168] providing game media to the gaming machine in the common game when the predetermined condition is satisfied after determining in the processing (F) that the amount of game media indicated by the first resource data has been reduced to the predetermined amount or less, based on the overflow data stored in the processing (C) into the second storage area.

[0169] According to the invention of (14), a common game is executed when the predetermined condition is satisfied and

game media is provided in the common game. Accordingly, the player is allowed to play a game with an expectation for an occurrence of the common game.

[0170] Since it is possible to pay out game media by using the game media indicated by the overflow data as a resource even when the amount of game media indicated by the first resource data becomes small, it is possible to maintain the player's expectation for the common game.

[0171] The present invention provides the following.

[0172] (15) The server according to (13) mentioned above,

[0173] wherein

[0174] the processor is further programmed to execute the processing of

[0175] (G) outputting an image or sound for notifying a player only of the amount of game media indicated by the first resource data out of the amounts of game media indicated by the first resource data and by the overflow data, from an output device connected to the server or an output device provided in the gaming machine, and

[0176] the processing (D) includes

[0177] (D-1) outputting an image or sound for notifying the player of the amount of game media based on the overflow data stored in the processing (C) into the second storage area from the output device instead of executing the processing (G), when determining in the processing (F) that the amount of game media indicated by the first resource data has been reduced to the predetermined amount or less, and

[0178] (D-2) providing game media to the gaming machine when the predetermined condition is satisfied after executing the processing (D-1), based on the overflow data stored in the processing (C) into the second storage area.

[0179] According to the invention of (15), an image or sound notifies the player of the amount of game media indicated by the first resource data. This allows the player to know the amount of game media that may be provided when the predetermined condition is satisfied. A larger amount of game media indicated by the image or sound may normally increase the player's expectation for the satisfaction of the predetermined condition.

[0180] On the other hand, when the predetermined condition is satisfied to reduce the amount of game media indicated by the first resource data, the player's expectation for another satisfaction of the predetermined condition may be reduced. In this regard, according to the invention of (15), the player is notified of the amount of game media indicated by the overflow data after the amount of game media indicated by the first resource data has been reduced to the predetermined amount or less. This maintains the player's expectation for the satisfaction of the predetermined condition.

[0181] Further, according to the invention of (15), the player is notified of the amount of game media indicated by the first resource data until the amount of game media indicated by the first resource data is reduced to the predetermined amount. Then, the player is suddenly notified of the amount of game media indicated by the overflow data when the amount of game media indicated by the first resource data has been reduced to the predetermined amount or less. This may surprise the player and the player may feel as if he or she has found secret savings. As a result, it is possible to provide a more interesting game to allow the player to be absorbed in the game.

[0182] The present invention provides the following.

[0183] (16) A gaming system comprising:

[0184] a plurality of gaming machines each provided with an input device and a controller;

[0185] a server provided with a processor and a memory device provided with a first storage area and a second storage area; and

[0186] a network enabling communication between the gaming machines and the server,

[0187] the controller programmed to execute the processing of:

[0188] (a) accepting an input made with use of the input device for betting game media; and

[0189] (b) transmitting bet information indicative of an amount of the game media betted in the processing (a) to the processor,

[0190] the processor programmed to execute the processing of

[0191] (A) receiving the bet information transmitted in the processing (b);

[0192] (B) storing data in accordance with the amount of game media indicated by the bet information received in the processing (A) as a first resource data into the first storage area provided in the memory device;

[0193] (C) determining whether or not the amount of game media indicated by the first resource data stored in the processing (B) into the first storage area has reached a predetermined amount;

[0194] (D) storing data in accordance with the amount of game media betted in the gaming machine after determining in the processing (C) that the amount of game media indicated by the first resource data has reached the predetermined amount, as an overflow data into the second storage area provided in the memory device; and

[0195] (E) providing game media to the gaming machine when a predetermined condition is satisfied, based on the overflow data stored in the processing (D) into the second storage area.

[0196] According to the invention of (16), the amount in accordance with the amount of game media betted in the gaming machine is accumulated in the first storage area. The first resource indicates the amount of game media thus accumulated.

[0197] After the amount of game media indicated by the first resource has reached the predetermined amount, the amount in accordance with the amount of game media betted in the gaming machine is accumulated in the second storage area. The overflow data indicates the amount of game media thus accumulated. When the predetermined condition is satisfied, game media is provided based on the overflow data.

[0198] Accordingly, even after the amount of game media indicated by the first resource data has reached the predetermined amount, game media betted in the gaming machine is accumulated ongoingly. The accumulated game media is used as a resource of the payout when the predetermined condition is satisfied. This can surprise the player who may think that the accumulation of game media has been terminated because the amount of game media indicated by the first resource data has reached the predetermined amount. As a result, it is possible to provide a more interesting game to allow the player to be absorbed in the game.

[0199] The present invention provides the following.

[0200] (17) The gaming system according to (16) mentioned above,

[0201] wherein

[0202] the processor is further programmed to execute the processing of:

[0203] (F) providing game media to the gaming machine when the predetermined condition is satisfied, based on the first resource data stored in the first storage area, and reducing the amount of game media indicated by the first resource data stored in the first storage area; and

[0204] (G) determining whether or not the amount of game media indicated by the first resource data stored in the first storage area has been reduced in the processing (F) to a predetermined amount or less, and

[0205] the processing (E) includes

[0206] providing game media to the gaming machine when the predetermined condition is satisfied after determining in the processing (G) that the amount of game media indicated by the first resource data has been reduced to the predetermined amount or less based on the overflow data stored in the processing (D) into the second storage area.

[0207] According to the invention of (17), when the predetermined condition is satisfied, game media is provided based on the first resource data and the amount of game media indicated by the first resource data is reduced. Namely, the game media indicated by the first resource data is used as a resource of the payout. Further, when the predetermined condition is satisfied after the amount of game media indicated by the first resource data has been reduced to the predetermined amount or less, game media is provided based on the overflow data.

[0208] Accordingly, even when the amount of game media indicated by the first resource data becomes small, it is possible to pay out game media by using the game media indicated by the overflow data as a resource. Consequently, it is possible to maintain the player's expectation for the payout of game media to be conducted when the predetermined condition is satisfied.

[0209] The present invention provides the following.

[0210] (18) The gaming system according to (16) mentioned above,

[0211] wherein

[0212] the processing (F) includes

[0213] providing game media to the gaming machine in a common game to be executed when the predetermined condition is satisfied, based on the first resource data stored in the first storage area, and reducing the amount of game media indicated by the first resource data stored in the first storage area, and

[0214] the processing (E) includes

[0215] providing game media to the gaming machine in the common game when the predetermined condition is satisfied after determining in the processing (G) that the amount of game media indicated by the first resource data has been reduced to the predetermined amount or less, based on the overflow data stored in the processing (C) into the second storage area.

[0216] According to the invention of (18), a common game is executed when the predetermined condition is satisfied and game media is provided in the common game. Accordingly, the player is allowed to play a game with an expectation for an occurrence of the common game.

[0217] Since it is possible to pay out game media by using the game media indicated by the overflow data as a resource even when the amount of game media indicated by the first resource data becomes small, it is possible to maintain the player's expectation for the common game.

[0218] The present invention provides the following.

[0219] (19) The gaming system according to (16) mentioned above,

[0220] wherein

[0221] the processor is further programmed to execute the processing of

[0222] (H) outputting an image or sound for notifying a player only of the amount of game media indicated by the first resource data out of the amounts of game media indicated by the first resource data and by the overflow data, from an output device connected to the server or an output device provided in the gaming machine, and

[0223] the processing (E) includes

[0224] (E-1) outputting an image or sound for notifying the player of the amount of game media based on the overflow data stored in the processing (D) into the second storage area from the output device instead of executing the processing (H), when determining in the processing (G) that the amount of game media indicated by the first resource data has been reduced to the predetermined amount or less, and

[0225] (E-2) providing game media to the gaming machine when the predetermined condition is satisfied after executing the processing (E-1), based on the overflow data stored in the processing (D) into the second storage area.

[0226] According to the invention of (19), an image or sound notifies the player of the amount of game media indicated by the first resource data. This allows the player to know the amount of game media that may be provided when the predetermined condition is satisfied. A larger amount of game media indicated by the image or sound may normally increase the player's expectation for the satisfaction of the predetermined condition.

[0227] On the other hand, when the predetermined condition is satisfied to reduce the amount of game media indicated by the first resource data, the player's expectation for another satisfaction of the predetermined condition may be reduced. In this regard, according to the invention of (19), the player is notified of the amount of game media indicated by the overflow data after the amount of game media indicated by the first resource data has been reduced to the predetermined amount or less. This maintains the player's expectation for the satisfaction of the predetermined condition.

[0228] Further, according to the invention of (19), the player is notified of the amount of game media indicated by the first resource data until the amount of game media indicated by the first resource data is reduced to the predetermined amount. Then, the player is suddenly notified of the amount of game media indicated by the overflow data when the amount of game media indicated by the first resource data has been reduced to the predetermined amount or less. This may surprise the player and the player may feel as if he or she has found secret savings. As a result, it is possible to provide a more interesting game to allow the player to be absorbed in the game.

[0229] The present invention provides the following.

[0230] (20) A control method of a server comprising a processor and a memory device provided with a first storage area and a second storage area and being capable of communicating with a gaming machine,

[0231] the method comprising the steps of:

[0232] (A) the processor storing a data in accordance with an amount of game media betted in the gaming machine as a first resource data into the first storage area provided in the memory device;

[0233] (B) the processor determining whether or not an amount of game media stored in the processing (A) into the first storage area;

[0234] (C) the processor storing a data in accordance with the amount of game media betted in the gaming machine after determining in the step (B) that the amount of game media indicated by the first resource data has reached the predetermined amount, as an overflow data into a second storage area provided in the memory device; and

[0235] (D) the processor providing game media to the gaming machine when a predetermined condition is satisfied, based on the overflow data stored in the step (C) into the second storage area.

[0236] According to the invention of (20), the amount in accordance with the amount of game media betted in the gaming machine is accumulated in the first storage area. The first resource data indicates the amount of game media thus accumulated.

[0237] After the amount of game media indicated by the first resource data has reached the predetermined amount, the amount in accordance with the amount of game media betted in the gaming machine is accumulated in the second storage area. The overflow data indicates the amount of game media thus accumulated. When the predetermined condition is satisfied, game media is provided based on the overflow data.

[0238] Accordingly, even after the amount of game media indicated by the first resource data has reached the predetermined amount, game media betted in the gaming machine is accumulated ongoingly. The accumulated game media is used as a resource of the payout when the predetermined condition is satisfied. This can surprise the player who may think that the accumulation of game media has been terminated because the amount of game media indicated by the first resource data has reached the predetermined amount. As a result, it is possible to provide a more interesting game to allow the player to be absorbed in the game.

[0239] The present invention provides the following.

[0240] (21) A gaming system comprising:

[0241] a plurality of gaming machines each provided with a terminal-side input device and a controller;

[0242] a server provided with a processor;

[0243] a management-side input device connected with the server; and

[0244] a network enabling communication between the gaming machines and the server,

[0245] the controller programmed to execute the processing of:

[0246] (a) accepting an input made with use of the terminalside input device for betting game media; and

[0247] (b) transmitting bet information indicative of an amount of game media betted in the processing (a),

[0248] the processor programmed to execute the processing of:

[0249] (A) accepting an input made with use of the management-side input device for configuring a setting related to a common game;

[0250] (B) receiving the bet information transmitted in the processing (b);

[0251] (C) executing a common game based on the bet information received in the processing (B) and the setting related to the common game configured in the processing (A). [0252] According to the invention of (21), a common game is executed based on the setting related to the common game configured with use of the management-side input device. Examples of the setting related to the common game include a setting related to a condition for triggering an occurrence of the common game and a setting related to the amount of game media to be provided in the common game. A manager of a game facility such as casino, in which the gaming system is installed, can configure the setting related to the common game by using the management-side input device. Accordingly, the manager is allowed to maintain the game facility quickly and easily so that the best common game corresponding to their management strategy is executed.

[0253] The present invention provides the following.

[0254] (22) The gaming system according to (21) above mentioned,

[0255] wherein

[0256] the processing (A) includes

[0257] accepting an input made with use of the management-side input device for setting a funding percentage for accumulating a part of the betted game media, and

[0258] the processing (C) includes

[0259] (C-1) accumulating the amount of game media corresponding to the funding percentage set in the processing (A) of the amount of game media indicated by the bet information received in the processing (B); and

[0260] (C-2) providing game media to the gaming machine in the common game based on the amount of game media accumulated in the processing (C-1).

[0261] According to the invention of (22), the amount of game media corresponding to the funding percentage, which has been set with use of the management-side input device, of the amount of game media betted in the gaming machine is accumulated. In the common game, game media is provided based on the amount of game media thus accumulated. Namely, the accumulated game media is used as a resource of the payout in the common game.

[0262] A manager of a game facility can set the funding percentage by using the management-side input device. For example, at the time of the day or on the day of week, when less gaming machines tend to be operated, it is possible to secure the resource for the payout in the common game by setting a larger funding percentage. On the other hand, at the time of the day or on the day of week, when more gaming machines tend to be operated, it is possible to set a smaller funding percentage and increase the profit of the game facility by that amount.

[0263] Accordingly, the manager is allowed to maintain the game facility quickly and easily so that the best funding percentage corresponding to their management strategy is set.

[0264] The present invention provides the following.

[0265] (23) The gaming system according to (21) mentioned above, wherein

[0266] the processing (A) includes

[0267] accepting an input made with use of the management-side input device for setting a range of the accumulated amount corresponding to the amount of game media for triggering an occurrence of the common game,

[0268] the processor is further programmed to execute the processing of

[0269] (D) specifying the accumulated amount within the range set in the processing (A),

[0270] the processing (C) includes:

[0271] (C-1) accumulating the amount in accordance with the amount of game media indicated by the bet information received in the processing (B), in association with a gaming machine as a transmission source of the bet information; and

[0272] (C-2) executing the common game when any of accumulated bet amounts corresponding to the amounts of game media each accumulated in the processing (C-1) for one of the gaming machines has reached the accumulated amount specified in the processing (D).

[0273] According to the invention of (23), the amount in accordance with the amount of game media betted in each of the gaming machines is accumulated in association with the gaming machine. Then, the common game is executed when any of the accumulated bet amounts corresponding to the amounts of game media each accumulated for one of the gaming machines has reached the accumulated amount. The accumulated amount is specified within the range set with use of the management-side input device (by a lottery, for example).

[0274] A manager of a game facility can set the range of the accumulated amount (also referred to as "setting range of the accumulated amount" in the present description) by using the management-side input device. For example, in accordance with various factors such as the day of week, a time period, a season, and an economic trend, the manager can set the setting range of the accumulated amount so as to allow a smaller accumulated amount to be easily specified to produce a situation that the common game is more likely to be executed. Alternatively, the manager can set the setting range of the accumulated amount so as to allow a larger accumulated amount to be easily specified to produce a situation that the common game is less likely to be executed.

[0275] Accordingly, the manager is allowed to maintain the game facility quickly and easily so that the best setting range of the accumulated amount corresponding to their management strategy is set.

[0276] The present invention provides the following.

[0277] (24) The gaming system according to (21) mentioned above,

[0278] wherein

[0279] the processing (A) includes

[0280] accepting an input made with use of the management-side input device for setting a setting amount for participation which corresponds to the amount of game media for determining the gaming machine allowed to participate in the common game,

[0281] the processing (C) includes:

[0282] (C-1) accumulating the amount in accordance with the amount of game media indicated by the bet information received in the processing (B), in association with a gaming machine as a transmission source of the bet information;

[0283] (C-2) determining, when a predetermined condition is satisfied, whether or not accumulated bet amounts corresponding to the amounts of game media each accumulated in the processing (C-1) in association with one of the gaming machines has reached the setting amount for participation set in the processing (A) or more; and

[0284] (C-3) transmitting a common game execution signal to the gaming machine associated with the accumulated bet

amount that has been determined in the processing (C-2) that it has reached the setting amount for participation set in the processing (A) or more,

[0285] the controller is further programmed to execute the processing of

[0286] (c) executing a common game on receiving the common game execution signal transmitted in the processing (C-3).

[0287] According to the invention of (24), the amount in accordance with the amount of game media betted in the gaming machine is accumulated in association with the gaming machine. The gaming machine allowed to participate in the common game is a gaming machine in which the accumulated bet amount corresponding to the amount of game media accumulated in association with that gaming machine has reached the setting amount for participation set with use of the management-side input device or more.

[0288] A manager of a game facility can set the setting amount for participation by using the management-side input device. For example, at the time of the day or on the day of week, when less gaming machines tend to be operated, the manager can set a smaller setting amount for participation to secure the number of players participating in the common game, resulting in the exciting common game. On the other hand, at the time of the day or on the day of week, when more gaming machines tend to be operated, the manager can set a larger setting amount for participation to encourage the players that want to participate in the game to bet more game media. Further, it is possible to provide the players allowed to participate in the common game with a sense of superiority.

[0289] Accordingly, the manager is allowed to maintain the game facility quickly and easily so that the best setting amount for participation corresponding to their management strategy is set.

[0290] The present invention provides the following.

[0291] (25) The gaming system according to (21) mentioned above

[0292] wherein

[0293] the server includes a memory device capable of storing threshold data indicative of an range which a common game-related value as a value related to the common game falls within, and post-setting common game-related value that is the common game-related value after setting,

[0294] the processing (A) includes:

[0295] (A-1) receiving a setting change signal including data indicative of the common game-related value from the management-side input device;

[0296] (A-2) determining whether or not the common game-related value indicated by the data included in the setting change signal received in the processing (A-1) falls within the range indicated by the threshold data stored in the memory device; and

[0297] (A-3) storing data indicative of the common gamerelated value into the memory device as the post-setting common game-related value data, on condition that the common game-related value indicated by the data included in the setting charge signal received in the processing (A-1) falls within the range indicated by the threshold data, and

[0298] the processing (C) includes

[0299] executing a common game based on the bet information received in the processing (B) and the common game-related value indicated by the post-setting common game-related value data stored in the processing (A-3).

[0300] According to the invention of (25), the common game-related value indicated by the data included in the setting change signal is used as a new common game-related value, on condition that the common game-related value falls within the range indicated by the threshold data. Then, the common game is executed based on that common game-related value.

[0301] Accordingly, it is impossible to set the common game-related value not falling within the range indicated by the threshold data. Therefore, it is possible to avoid the case where the value not intended by the management of the game facility is set as the common game-related value by cheating, mistake, or the like. For example, it is possible to avoid the case where an unexpectedly large amount of game media is paid out in the common game.

[0302] As a result, it is possible to secure the sound operation and the credibility of the casino.

[0303] The present invention provides the following.

[0304] (26) A control method of a gaming system comprising: a plurality of gaming machines each provided with a terminal-side input device and a controller; a server provided with a processor; a management-side input device connected to the server; and a network enabling communication between the gaming machines and the server,

[0305] the control method comprising the steps of:

[0306] (a) the controller accepting an input made with use of the terminal-side input device for betting game media;

[0307] (b) the controller transmitting bet information indicative of the amount of game media betted in the step (a) to the processor;

[0308] (A) the processor accepting an input made with use of the management-side input device for configuring a setting related to a common game;

[0309] (B) the processor receiving the bet information transmitted in the step (b); and

[0310] (C) the processor executing a common game based on the bet information received in the step (B) and the setting related to the common game configured in the step (A).

[0311] According to the invention of (26), the common game is executed based on the setting related to the common game configured with use of the management-side input device. Examples of the setting related to the common game include a setting related to a condition for triggering an occurrence of the common game and a setting related to the amount of game media to be provided in the common game. A manager of a game facility such as casino, in which the gaming system is installed, can configure the setting related to the common game by using the management-side input device. Accordingly, the manager is allowed to maintain the game facility quickly and easily so that the best common game in accordance with their management strategy is executed.

[0312] The present invention provides the following.

[0313] (27) A gaming system comprising:

[0314] a plurality of gaming machines each provided with an input

[0315] device and a controller;

[0316] a server provided with a processor; and

[0317] a network enabling communication between the gaming machines and the server,

[0318] the controller programmed to execute the processing of:

[0319] (a) accepting an input made with use of the input device for betting game media; and

[0320] (b) transmitting bet information indicative of an amount of came media betted in the processing (a) to the processor, and

[0321] the processor programmed to execute the processing of:

[0322] (A) receiving the bet information transmitted in the processing (b);

[0323] (B) accumulating an amount in accordance with the amount of game media indicated by the bet information received in the processing (A);

[0324] (C) determining an amount of game media to be betted to a common game, based on the amount of game media accumulated in the processing (B);

[0325] (D) executing the common game when a predetermined condition is satisfied; and

[0326] (E) providing game media in an amount obtained based on the amount of game media determined in the processing (C) and a result of the common game executed in the processing (D), to each of the gaming machines.

[0327] According to the invention of (27), the amount in accordance with the amount of game media betted in each of the gaming machines is accumulated. Then, the amount of game media to be betted to the common game (bet amount for common game) is determined based on the amount of game media thus accumulated. In the common game, game media in an amount based on the bet amount for common game thus determined and the result of the common game is provided.

[0328] Accordingly, the amount of game media which may be provided in the common game is increased along with the increase in the amount of game media stored by accumulation. Therefore, the player may be greatly interested in the amount of stored game media. On the other hand, the result of the common game makes a difference in whether or not the player actually gets game media in an amount in accordance with the amount of stored game media. Therefore, the player may be glued on the common game. This makes the common game more exciting.

[0329] The present invention provides the following.

[0330] (28) The gaming system according to (27) mentioned above,

[0331] wherein

[0332] the processing (B) includes

[0333] accumulating the amount in accordance with the amount of game media indicated by the bet information received in the processing (A), in association with the gaming machine as a transmission source of the bet information.

[0334] the processing (C) includes

[0335] determining the amount of game media to be betted to the common game in each of the gaming machines, based on the accumulated bet amount corresponding to the amount of game media accumulated in the processing (B) for each of the gaming machines, and

[0336] the processing (E) includes

[0337] providing game media in an amount calculated with respect to each of the gaming machines based on the amount of game media determined in the processing (C) for each of the gaming machines and the result of the common game executed in the processing (D).

[0338] According to the invention of (28), the amount in accordance with the amount of game media betted in each of the gaming machines is accumulated in association with that gaming machine. Then, the bet amount for common game is determined with respect to each of the gaming machines,

based on the accumulated bet amount corresponding to the amount of game media thus accumulated for each of the gaming machines.

[0339] Accordingly, the player can bet a larger amount of game media to increase the bet amount for common game in the gaming machine on which he or she plays a game. As a result, a situation may be produced where he or she may get a larger amount of game media. Accordingly, it is possible to encourage the player to bet more game media.

[0340] In addition, the player having betted a larger amount of game media may have a stronger expectation for the good result that he or she desires in the common game. Therefore, such players may be absorbed in the common game.

[0341] Further, it is possible to give the players the competition with regard to the amount of game media that may be provided in the common game. Accordingly, it is possible to provide the player who has received a larger amount of game media in the common game with a strong satisfaction and a sense of superiority.

[0342] The present invention provides the following.

[0343] (29) The gaming system according to (27) mentioned above,

[0344] wherein

[0345] the processing (C) includes

[0346] determining the amount of game media to be betted to the common game based on the amount of game media accumulated in the processing (B) even when an input for betting game media has not been made with use of the input device.

[0347] According to the invention of (29), the amount of game media to be betted to the common game is determined even when game media has not been betted. Namely, the player can enjoy the common game without further consuming game media. Accordingly, the player may be greatly satisfied with an occurrence of the common game.

[0348] In addition, since the player needs not to make an operation for placing a bet to the common game, the player is allowed to concentrate on the common game.

[0349] The present invention provides the following.

[0350] (30) A control method of a gaming system comprising: a plurality of gaming machines each provided with an input device and a controller; a server provided with a processor; and a network enabling communication between the gaming machines and the server,

[0351] the control method comprising the steps of:

[0352] (a) the controller accepting an input made with use of the input device for betting game media;

[0353] (b) the controller transmitting bet information indicative of an amount of game media betted in the step (a) to the processor;

[0354] (A) the processor receiving the bet information transmitted in the step (b);

[0355] (B) the processor accumulating the amount in accordance with the amount of game media indicated by the bet information received in the step (A);

[0356] (C) the processor determining the amount of game media to be betted to a common game, based on an amount of game media accumulated in the step (B);

[0357] (D) the processor executing the common game when a predetermined condition is satisfied; and

[0358] (E) providing game media in an amount based on the amount of came media determined in the step (C) and the result of the common game executed in the step (D), to each of the gaming machines.

[0359] According to the invention of (30), the amount corresponding to the amount of game media betted in each of the gaming machines is accumulated. Then, the amount of game media to be betted to the common game (bet amount for common game) is determined based on the amount of game media thus accumulated. In the common game, game media is provided in an amount based on the bet amount for common game thus determined and the result of the common game.

[0360] Accordingly, the amount of game media which may be provided in the common game is increased along with the increase in the amount of game media stored by accumulation. Therefore, the player may be greatly interested in the amount of stored game media. On the other hand, the result of the common game makes a difference in whether or not the player actually gets game media in an amount corresponding to the amount of stored game media. Therefore, the player may be glued on the common game. This makes the common game more exciting.

[0361] The present invention provides the following.

[0362] (31) A gaming system comprising

[0363] a plurality of gaming machines each provided with an input device and a controller;

[0364] a server provided with an input device; and

[0365] a network enabling communication between the gaming machines and the server,

[0366] the controller programmed to execute the processing of:

[0367] (a) accepting an input made with use of the input device for making an additional bet to participate in a common game; and

[0368] (b) transmitting an additional bet signal to the processor when the input for making the additional bet has been made in the processing (a),

[0369] the processor programmed to execute the processing of

[0370] (A) selecting a gaming machine satisfying a specific condition as a gaming machine allowed to participate in the common game, out of the plurality of gaming machines, when a predetermined condition is satisfied;

[0371] (B) determining, when receiving the additional bet signal transmitted in the processing (b), a gaming machine as a transmission source of the additional bet signal as the gaming machine allowed to participate in the common game, in addition to the gaming machine selected in the processing (A); and

[0372] (C) transmitting a common game execution signal to the controller provided in the gaming machines selected in the processing (A) and determined in the processing (B), and [0373] the controller further programmed to execute the processing of

[0374] (c) executing a common game on receiving the common game execution signal transmitted in the processing (C).

[0375] According to the invention of (31), the common game is executed also in the gaming machine in which the additional bet has been placed, in addition to the gaming machine satisfying a specific condition.

[0376] Accordingly, even a player playing a game on the gaming machine that is not satisfying the specific condition can participate in the common game by placing an additional bet, and therefore, it is possible to have the player feel relieved and to provide him or her with satisfaction.

[0377] On the other hand, the player playing a game on the gaming machine that is satisfying the specific condition can

participate in the common game without placing an additional bet, and therefore, it is possible to provide the player with a sense of superiority.

[0378] The present invention provides the following.

[0379] (32) The gaming system according to (31) mentioned above,

[0380] wherein

[0381] the controller is further programmed to execute the processing of

[0382] (d) accepting an input made with use of the input device for betting game media as a normal bet; and

[0383] (e) transmitting bet information indicative of an amount of game media betted in the processing (d) as the normal bet to the processor,

[0384] the processor is further programmed to execute the processing of:

[0385] (D) receiving the bet information transmitted in the processing (e); and

[0386] (E) accumulating an amount in accordance with the amount of game media indicated by the bet information received in the processing (D), in association with the gaming machine as a transmission source of the bet information,

[0387] the processing (A) includes

[0388] (A-1) determining whether or not an accumulated bet amount corresponding to the amount of game media accumulated in the processing (E) for each of the gaming machines is equal to or more than a setting amount for participation with respect to each accumulated bet amount, when a predetermined condition is satisfied; and

[0389] (A-2) selecting the gaming machine associated with the accumulated bet amount determined in the processing (A-1) that it is equal to or more than the setting amount for participation, as a gaming machine allowed to participate in the common game, and

[0390] the processing (B) includes

[0391] determining, when receiving the additional bet signal transmitted in the processing (b) from the gaming machine associated with the accumulated bet amount determined in the processing (A-1) that it is less than the setting amount for participation, the gaming machine as a transmission source of the additional bet signal as a gaming machine to participate in the common game, in addition to the gaming machine selected in the processing (A).

[0392] According to the invention of (32), a condition that the total amount of the betted game media (accumulated bet amount) is equal to or more than the predetermined amount (setting amount for participation) is employed as the specific condition.

[0393] It is highly possible that the accumulated bet amount has not reached the setting amount for participation in the gaming machine on which a game is played only for a short time. Such a gaming machine is less likely to satisfy the specific condition. In this regard, according to the invention of (32), even a player playing a game only for short time can participate in the common game by placing an additional bet. Accordingly, the player can start playing a game any time he or she wants.

[0394] Further, it is possible to provide the player playing a game on the gaming machine satisfying the specific condition with a stronger sense of superiority by setting the required amount of game media for the additional bet to the amount larger than the balance between the current accumulated bet

amount and the setting amount for participation. Concurrently, it is possible to facilitate the profit increase of the game facility.

[0395] The present invention provides the following.

[0396] (33) The gaming system according to (32) mentioned above,

[0397] wherein

[0398] the processor is further programmed to execute the processing of

[0399] (F) determining, when receiving in the processing (D) the bet information, whether or not the accumulated bet amount in the gaming machine as the transmission source of the bet information is equal to or larger than an accumulated amount that is larger than the setting amount for participation, and

[0400] the processing (A-1) includes

[0401] determining, when determining that the accumulated bet amount in the gaming machine as the transmission source of the bet information is equal to or larger than the accumulated amount, whether or not each of the accumulated bet amounts in each of the gaming machines other than the above gaming machine is equal to or larger than the setting amount for participation.

**[0402]** According to the invention of (33), a condition that the accumulated bet amount in any of the gaming machines has reached the accumulated amount is employed as the predetermined condition. The accumulated amount is larger than the setting amount for participation.

[0403] Namely, according to the invention of (33), the gaming machine having the largest accumulated bet amount triggers an occurrence of the common game. The player on the gaming machine having the accumulated bet amount that has reached the setting amount for participation is allowed to participate in the common game without an additional bet, while the player on the gaming machine having the accumulated bet amount that is smaller than the setting amount for participation needs to place an additional bet to participate in the common game.

[0404] Accordingly, an occurrence of the common game, approval to participate in the common game, and a need to place an additional bet are determined based on the accumulated bet amount. Therefore, it is possible to give the players a competition with regard to the amount of the accumulated bet amount, resulting in a more exciting game.

[0405] The present invention provides the following.

[0406] (34) The gaming system according to (32) mentioned above,

[0407] wherein

[0408] the processor is further programmed to execute the processing of

[0409] (G) determining whether or not the number of gaming machines satisfying the specific condition is equal to or smaller than a predetermined number, and

[0410] the processing (a) includes

[0411] accepting an input made with use of the input device for placing the additional bet, on condition that it is determined that the number of gaming machines satisfying the specific condition is equal to or smaller than the predetermined number.

[0412] According to the invention of (34), only when the number of gaming machines satisfying the specific condition is equal to or smaller than the predetermined number, the

player on the gaming machine not satisfying the specific condition is allowed to participate in the common game by placing the additional bet.

[0413] Accordingly, when the number of gaming machines satisfying the specific condition is larger than the predetermined number, the player on the gaming machine not satisfying the specific condition cannot participate in the common game. Therefore, it is possible to provide the player on the gaming machine satisfying the specific condition with a sense of superiority.

**[0414]** On the other hand, when the number of gaming machines satisfying the specific condition is equal to or smaller than the predetermined number, the additional bet to participate in the common game is encouraged so that the number of gaming machines participating in the common game is increased. As a result, it is possible to provide an active common game.

[0415] The present invention provides the following.

[0416] (35) A control method of a gaming system comprising: a plurality of gaming machines each provided with an input device and a controller; a server provided with a processor; and a network enabling communication between the gaming machines and the server,

[0417] the control method comprising the steps of:

[0418] (a) the controller accepting an input made with use of the input device for participating in a common game;

[0419] (b) the controller transmitting an additional bet signal to the processor when the input has been made in the step (a) for participating in the common game;

[0420] (A) the processor selecting a gaming machine satisfying a specific condition as a gaming machine allowed to participate in the common game, out of the plurality of gaming machines when a predetermined condition is satisfied;

[0421] (B) the processor determining, when receiving the additional bet signal transmitted in the step (b), the gaming machine as a transmission source of the additional bet signal as the gaming machine to participate in the common game, in addition to the gaming machine selected in the step (A);

[0422] (C) the processor transmitting a common game execution signal to the controller provided in the gaming machine selected in the step (A) and to the controller in the gaming machine determined in the step (B); and

[0423] (c) the controller executing a common game on receiving the common game execution signal transmitted in the step (C).

**[0424]** According to the invention of (35), the common game is executed also in the gaming machine in which an additional bet has been placed, in addition to the gaming machine satisfying the specific condition.

[0425] Accordingly, even a player playing a game on the gaming machine that is not satisfying the specific condition can participate in the common game by placing an additional bet, and therefore, it is possible to have the player feel relieved and to provide him or her with satisfaction.

[0426] On the other hand, the player playing a game on the gaming machine that is satisfying the specific condition can participate in the common game without placing an additional bet, and therefore, it is possible to provide the player with a sense of superiority.

[0427] The present invention provides the following.

[0428] (36) A gaming system comprising:

[0429] a plurality of gaming machines each provided with a controller;

[0430] a server provided with a processor; and

[0431] a network enabling communication between the gaming machines and the server,

[0432] the processor programmed to execute the processing of

[0433] (A) executing a common game when a predetermined condition is satisfied,

[0434] the controller programmed to execute the processing of:

[0435] (a) providing game media in an amount calculated based on a bet to a predetermined bet target and a result of the common game executed in the processing (A), when a mode of the common game executed in the gaming machine provided with the above controller is a first mode; and

[0436] (b) providing game media in an amount calculated based on a bet to a specific bet target that is different from the predetermined bet target and the result of the common game executed in the processing (A) when the mode of the common game executed in the gaming machine provided with the above controller is a second mode.

[0437] According to the invention of (36), when the common game is in the first mode, game media is paid out in an amount calculated based on the bet to a predetermined bet target and the result of the common game. On the other hand, when the common game is in the second mode, game media is paid out calculated based on the bet to a specific bet target and the result of the common game.

[0438] Accordingly, the target to bet is different when the common game is in the first mode or in the second mode. Therefore, it is possible to provide various common games that the players are less likely to get bored.

[0439] The present invention provides the following.

[0440] (37) The gaming system according to (36) mentioned above,

[0441] wherein

[0442] each of the gaming machines is provided with an input device,

[0443] the controller is further programmed to execute the processing of:

[0444] (c) accepting an input made with use of the input device for selecting one mode out of a plurality of modes including the first mode and the second mode,

[0445] the processing (a) includes

[0446] providing game media in an amount calculated based on the bet to the predetermined bet target and the result of the common game executed in the processing (A) when the first mode was selected in the processing (c),

[0447] the processing (b) includes

[0448] providing game media in an amount calculated based on the bet to the specific bet target and the result of the common game executed in the processing (A) when the second mode was selected in the processing (c).

**[0449]** According to the invention of (37), the player can select the mode of the common game by using the input device. The player selects the first mode when he or she wants to place a bet to the predetermined bet target. Further, the player selects the second mode when he or she wants to place a bet to the specific bet target. The player can select the mode of the common game in accordance with his or her needs.

[0450] For example, when a bet to the predetermined bet target is comparatively simple, even a player unfamiliar with the common game can select the first mode so that he or she can comparatively easily place a bet to the common game. As a result, the player can enjoy the common game with ease. On the other hand, when a bet to the specific bet target requires an

advanced strategy, a player familiar with the common game can select the second mode so that he or she can enjoy a more challenging game.

[0451] Consequently, it is possible to provide a common game responding to the players' needs.

[0452] The present invention provides the following.

[0453] (38) The gaming system according to (36) mentioned above,

[0454] wherein

[0455] the processing (b) includes

[0456] providing game media in an amount calculated based on the bet to the predetermined bet target and the result of the common game executed in the processing (A) and providing game media in an amount calculated based on the bet to the specific bet target and the result of the common game executed in the processing (A), when the common game executed in the gaming machine provided with the above controller is in the second mode.

**[0457]** According to the invention of (38), when the common game is in the second mode, a payout in the common game is determined based on both the bet to the predetermined bet target and the bet to the specific bet target. Accordingly, the player is allowed to be interested in the result of the common game. As a result, the player may be absorbed in the common game.

[0458] The present invention provides the following.

[0459] (39) The gaming system according to (39) mentioned above,

[0460] wherein

[0461] each of the gaming machines is provided with an input device,

[0462] the processing (a) includes:

[0463] (a-1) determining a bet to the predetermined bet target even an input made with use of the input device for betting game media has not been made, when the common game executed in the gaming machine provided with the above controller is in the first mode; and

[0464] (a-2) providing game media in an amount calculated based on the bet determined in the processing (a-1) and the result of the common game executed in the processing (A),

[0465] the processing (b) includes

[0466] (b-1) accepting an input made with use of the input device for betting game media to a bet target out of a plurality of bet targets included in the specific bet target, when the common game executed in the gaming machine provided with the above controller is in the second mode, and

[0467] (b-2) providing game media in an amount calculated based on the bet in the processing (b-1) and the result of the common game executed in the processing (A).

**[0468]** According to the invention of (39), a bet to the predetermined bet target is determined even without a bet of game media, when the common game is in the first mode. Namely, the player needs not to make an operation for placing a bet to the common game, and therefore, the player is allowed to be concentrated on the common game.

[0469] On the other hand, the player needs to select a bet target to bet out of a plurality of bet targets, when the common game is in the second mode. Accordingly, the player can play a more challenging game.

[0470] As above described, it is possible to provide the players with a more amusing game by varying the bet in the common game.

[0471] The present invention provides the following.

[0472] (40) The gaming system according to (37) mentioned above,

[0473] wherein

[0474] the controller is further programmed to execute the processing of:

[0475] (d) accepting an input made with use of the input device for betting game media to a normal game; and

[0476] (e) transmitting bet information indicative of an amount of game media betted in the processing (d) to the processor,

[0477] the processor is further programmed to execute the processing of:

[0478] (B) receiving the bet information transmitted in the processing (e); and

[0479] (C) accumulating an amount in accordance with the amount of game media indicated by the bet information received in the processing (B), in association with the gaming machine as a transmission source of the bet information, and

[0480] the processing (c) includes

[0481] accepting an input made with use of the input device for selecting a mode out of a plurality of modes including the first mode and the second mode, based on the accumulated bet amount corresponding to the amount of game media accumulated in the processing (C) for each of the gaming machines.

**[0482]** According to the invention of (40), the amount in accordance with the amount of game media betted in each of the gaming machines is accumulated in association with that gaming machine. The input for selecting the mode of the common game is accepted based on the accumulated bet amount corresponding to the amount of game media accumulated in each of the gaming machines.

[0483] For example, the input made with use of the input device for selecting the mode of the common game may be accepted from the gaming machine with the predetermined amount or more of the accumulated bet amount. Alternatively, the input for selecting the mode of the common game may be sequentially accepted in an order starting from the gaming machine with the largest accumulated bet amount to the gaming machine with the N<sup>th</sup> largest accumulated bet amount.

[0484] Accordingly, the player having betted a larger amount of game media may be provided with a chance to select the mode of the common game preferentially. This provides the player with a sense of superiority. In addition, it is possible to encourage the player who wants to select the mode of the common game to bet more game media.

[0485] The present invention provides the following.

[0486] (41) A control method of a gaming system comprising: a plurality of gaming machines each provided with a controller; a server provided with a processor; and a network enabling communication between the gaming machines and the server,

[0487] the method comprising:

[0488] (A) the processor executing a common game when a predetermined condition is satisfied;

[0489] (a) the controller providing game media in an amount calculated based on a bet to a predetermined bet target and a result of the common game executed in the step (A), when the common game executed in the gaming machine provided with the above controller is in a first mode; and

[0490] (b) the controller providing game media in an amount calculated based on a bet to a specific bet target that is different from the predetermined bet target and the result of

the common game executed in the step (A), when the common game executed in the gaming machine provided with the above controller is in a second mode.

[0491] According to the invention of (41), game media in an amount calculated based on the bet to the predetermined bet target and the result of the common game is provided when the common game is in the first mode. On the other hand, when the common game is in the second mode, game media in an amount calculated based on the bet to the specific bet target and the result of the common game.

[0492] Accordingly, the target to bet is different when the common game is in the first mode or in the second mode. Therefore, it is possible to provide varied common games that the players are less likely to get bored.

[0493] The present invention provides the following.

[0494] (42) A gaming system comprising:

[0495] a plurality of gaming machines each provided with an input device and a controller;

[0496] a server provided with a memory device and a processor:

[0497] an output device connected to the server or an output device provided in each of the gaming machines,

[0498] a network enabling communication between the gaming machines and the server,

[0499] the controller programmed to execute the processing of:

[0500] (a) accepting an input made with use of the input device for betting game media; and

[0501] (b) transmitting bet information indicative of an amount of the game media betted in the processing (a) to the processor,

[0502] the processor programmed to execute the processing of

[0503] (A) receiving the bet information transmitted in the processing (b);

[0504] (B) accumulating an amount in accordance with the amount of the game media indicated by the bet information received in the processing (A), in association with the gaming machine as a transmission source of the bet information;

[0505] (C) determining whether or not an accumulated bet amount corresponding to the amount of game media accumulated in the processing (B) for each of the gaming machines satisfies a condition to participate in a common game, with respect to each accumulated bet amount;

[0506] (D) selecting a gaming machine associated with the accumulated bet amount determined in the processing (C) that it satisfies the condition to participate in the common game, as a gaming machine allowed to participate in the common game;

[0507] (E) transmitting a common game execution signal to the gaming machine selected in the processing (C); and

[0508] (F) notifying an accumulated bet situation indicative of a relation between the accumulated bet amount at present and the condition to participate in the common game based on an accumulated bet amount data that is stored in the memory device and is indicative of the accumulated bet amount, to each of the gaming machines with use of the output device, the controller further programmed to execute the processing of

[0509] (c) executing the common game on receiving the common game execution signal transmitted in the processing (E).

[0510] According to the invention of (42), the output device notifies the accumulated bet situation in each of the gaming

machines. The accumulated bet situation indicates the relation between the accumulated bet amount at present and the condition to participate in the common game. Examples of the condition to participate in the common game include the accumulated bet amount being equal to or more than the predetermined amount and the accumulated bet amount being at least the N<sup>th</sup> largest amount. When the accumulated bet amount being equal to or more than the predetermined amount is employed as the condition to participate in the common game, an image showing a contrast between the accumulated bet amount at present and the predetermined amount may be used to notify the accumulated bet situation. When the accumulated bet amount being at least the Nth largest amount is employed as the condition to participate in the common game, an image showing the number allocated to the gaming machine satisfying the condition and the accumulated bet amount in that gaming machine in combination may be used to notify the accumulated bet situation.

[0511] Accordingly, the player is allowed to know the relation between the accumulated bet amount at present and the condition to participate in the common game, which may change from moment to moment, at any time.

[0512] When the accumulated bet situation shows that the condition to participate in the common game is likely to be satisfied, the player can reduce the amount of game media to bet. On the contrary, when the accumulated bet situation shows that the condition to participate in the common game is not likely to be satisfied, the player can increase the amount of game media to bet. Further, when the accumulated bet situation shows that the condition to participate in the common game cannot be satisfied, the player can quit the game. As above mentioned, the player can select his or her next action in accordance with the accumulated bet situation.

[0513] The present invention provides the following.

[0514] (43) The gaming system according to (42) mentioned above,

[0515] wherein

[0516] the condition to participate in the common game is that the accumulated bet amount is equal to or more than a setting amount for participation,

[0517] the processing (F) includes

[0518] notifying the accumulated bet situation indicative of a contrast between the accumulated bet amount at present and the condition to participate in the common game based on a setting amount for participation data indicative of the setting amount for participation and the accumulated bet amount data indicative of the accumulated bet amount, to each of the gaming machines with use of the output device.

[0519] According to the invention of (43), a condition that the accumulated bet amount is equal to or more than the setting amount for participation is employed as the condition to participate in the common game. The accumulated bet condition indicates the contrast between the accumulated bet amount at present and the setting amount for participation.

[0520] This allows the player to know the amount of game media he or she needs to bet so that the accumulated bet amount in the gaming machine on which he or she plays a game reaches the setting amount for participation.

[0521] As a result, when the accumulated bet situation shows that the condition to participate in the common game is likely to be satisfied, the player can reduce the amount of game media to bet. On the contrary, when the accumulated bet situation shows that the condition to participate in the common game is not likely to be satisfied, the player can increase

the amount of game media to bet. Further, when the accumulated bet situation shows that the condition to participate in the common game cannot be satisfied, the player can quit the game. As above mentioned, the player can select his or her next action in accordance with the accumulated bet situation.

[0522] The present invention provides the following.

[0523] (44) The gaming system according to (43) mentioned above,

[0524] wherein

[0525] the processor is further programmed to execute the processing of

[0526] (G) subtracting the setting amount for participation from the accumulated bet amount determined in the processing (C) that it is equal to or more than the setting amount for participation,

[0527] the processing (B) includes

[0528] adding the amount corresponding to the amount of game media indicated by the bet information received in the processing (A) to the amount of game media corresponding to the accumulated bet amount after subtraction in the processing (G), after completing an execution of the common game.

[0529] According to the invention of (44), the setting amount for participation is subtracted from the accumulated bet amount determined that it is equal to or more than the setting amount for participation. Then, after the common game, the amount corresponding to the amount of the betted game media is added to the amount of game media corresponding to the accumulated bet amount after subtraction.

[0530] Namely, the balance of the accumulated bet amount and the setting amount for participation is carried over to the next common game. Then, the accumulated bet situation is notified based on the carried-over accumulated bet amount. Accordingly, when a large amount of game media have been betted such that the accumulated bet amount is in great excess of the setting amount for participation in a gaming machine, it is possible to notify the player on that gaming machine of the state where the accumulated bet amount is still at a certain level even right after the common game.

[0531] As a result, it is possible to provide such a player with satisfaction and a sense of superiority.

[0532] In addition, it is possible to encourage the player playing a game on the gaming machine in which the accumulated bet amount is sufficient even right after the common game, to continue playing the game. Consequently, it may reduce the case where the player stops playing a game without knowing that the sufficient accumulated bet amount is left, so that the player is allowed to enjoy a game with ease.

[0533] On the other hand, when the carried-over accumulated bet amount is not so much, it is possible to give a chance to quit the game to the player.

[0534] The present invention provides the following.

[0535] (45) A gaming system comprising:

[0536] a plurality of gaming machines each provided with a controller;

[0537] a server provided with a processor;

[0538] an output device connected to the server or an output device provided in each of the gaming machines; and

[0539] a network enabling communication between the gaming machines and the server,

[0540] the processor programmed to execute the processing of:

[0541] (A) selecting a gaming machine satisfying a specific condition, out of the plurality of gaming machines, as a gam-

ing machine allowed to participate in a common game, when a predetermined condition is satisfied; and

[0542] (B) transmitting a common game execution signal to the gaming machine selected in the processing (A),

[0543] the controller programmed to execute the processing of:

[0544] (a) determining at a predetermined timing whether or not a game is executed in the gaming machine provided with the above controller; and

[0545] (b) executing a processing not to execute a common game to be started on receiving the common game execution signal, when continuously determining in the processing (a) that the game is not executed for a predetermined time after starting measuring at a predetermined start-up time of measuring, and

[0546] the controller or the processor further programmed to execute the processing of

[0547] (X) notifying the time elapsed from a predetermined start-up time of measuring until the predetermined time has elapsed, from the output device.

[0548] According to the invention of (45), when it is determined that the game has not been executed in the gaming machine continuously for a predetermined time after measuring is started at a predetermined start-up time of measuring (e.g. when it is determined that the number of credits has been zero for a predetermined time period), that gaming machine is not allowed to participate in the common game even it satisfies the specific condition. Namely, the gaming machine is ineligible to participate in the common game.

[0549] In this regard, according to the invention of (45), the output device notifies the time elapsed from a predetermined start-up time of measuring until the predetermined time has elapsed and it may give an index of the time in which the player can be away from the gaming machine.

[0550] In addition, in a case where the timing when the predetermined condition is satisfied is employed as the predetermined start-up time of measuring, even the gaming machine satisfying the specific condition cannot participate in the common game after the predetermined time has elapsed. This may prevent the delay of the start of the common game.

[0551] In the invention of (45), examples of the "processing not to execute a common game" include the following.

[0552] One example may be "processing of storing a timeout flag into a memory device provided in each gaming machine when continuously determining in the processing (a) that the game is not executed for a predetermined time after starting measuring at a predetermined start-up time of measuring". In this case, the controller executes the common game on receiving the common game execution signal transmitted in the processing (B), on condition that the time-out flag is not stored in the memory device, for example.

[0553] Another example may be "processing of transmitting a time-out signal to the server when continuously determining in the processing (a) that the game is not executed for a predetermined time after starting measuring at a predetermined start-up time of measuring". In this case, the processor stores a time-out flag into a memory device provided in the server, on receiving the time-out signal from the gaming machine, in association with the gaming machine as a transmission source of the received time-out signal. Then, the processing (B) includes transmitting the common game execution signal to the gaming machine not associated with

the time-out flag stored in the memory device among the gaming machines selected in the processing (A).

[0554] The present invention provides the following.

[0555] (46) The gaming system according to (45) mentioned above.

[0556] wherein

[0557] the controller is further programmed to execute the processing of:

[0558] (c) accepting an input made with use of the input device for betting game media; and

[0559] (d) transmitting bet information indicative of an amount of game media betted in the processing (c) to the processor.

[0560] the processor is further programmed to execute the processing of:

[0561] (C) receiving the bet information transmitted in the processing (d);

[0562] (D) accumulating an amount corresponding to the amount of game media indicated by the bet information received in the processing (C), in association with the gaming machine as a transmission source of the bet information; and

[0563] (E) determining, when a predetermined condition is satisfied, whether or not the accumulated bet amount corresponding to the amount of game media accumulated in the processing (D) for each of the gaming machines satisfies a condition to participate in a common game, with respect to each accumulated bet amount,

[0564] the processing (A) includes

[0565] selecting a gaming machine associated with the accumulated bet amount determined in the processing (E) that it satisfies the condition to participate in the common game, as the gaming machine allowed to participate in the common game.

**[0566]** According to the invention of (46), the specific condition is that the accumulated bet amount in the gaming machine satisfies the condition to participate in the common game. Accordingly, it is required to increase the accumulated bet amount by playing games for a long time in order to satisfy the specific condition.

[0567] In this regard, according to the invention of (46), the output device notifies the time elapsed from a predetermined start-up time of measuring until the predetermined time has elapsed to give an index of the time in which the player can be away from the gaming machine. Accordingly, it may avoid the case where the player becomes ineligible to participate in the common game while he or she is making a pause, though the player has betted a large amount of game media for a long time. As a result, the player is allowed to play games for a long time with ease.

[0568] Further, it may also prevent the case as described below. On the gaming machine that has become available after the accumulated bet amount had been stored to the extent satisfying the condition to participate in the common game, a player who has scarcely contributed to the accumulated bet amount starts playing a game to get a profit provided in the common game. Accordingly, it is possible to avoid giving a sense of unfairness to the player having played games for a long time, namely the player having contributed to the accumulated bet amount so much.

[0569] The present invention provides the following.

[0570] (47) A control method of a gaming system comprising: a plurality of gaming machines each provided with an input device and a controller; a server provided with a memory device and a processor; an output device connected

to the server or an output device provided in each of the gaming machines; and a network enabling communication between the gaming machines and the server,

[0571] the control method comprising the steps of:

[0572] (a) the controller accepting an input made with use of the input device for betting game media;

[0573] (b) the controller transmitting bet information indicative of an amount of game media betted in the step (a) to the processor:

[0574] (A) the processor receiving the bet information transmitted in the step (b);

[0575] (B) the processor accumulating an amount in accordance with the amount of game media indicated by the bet information received in the step (A) in association with the gaming machine as a transmission source of the bet information:

[0576] (C) the processor determining, when a predetermined condition is satisfied, an accumulated bet amount corresponding to the amount of game media accumulated in the step (B) for each of the gaming machines satisfies a condition to participate in a common game, with respect to each accumulated bet amount,

[0577] (D) the processor selecting a gaming machine associated with the accumulated bet amount determined in the step (C) that it satisfies the condition to participate in the common game, as a gaming machine allowed to participate in the common game,

[0578] (E) the processor transmitting a common game execution signal to the gaming machine selected in the step (D)

[0579] (F) the processor notifying an accumulated bet situation indicative of a relation between the accumulated bet amount at present and the condition to participate in the common game based on an accumulated bet amount data that is stored in the memory device and is indicative of the accumulated bet amount, to each of the gaming machines with use of the output device, and

[0580] (c) the controller executing a common game on receiving the common game execution signal transmitted in the step (E).

[0581] According to the invention of (47), the output device notifies the accumulated bet situation to each of the gaming machines with use of the output device. The accumulated bet situation indicates the relation between the accumulated bet amount at present and the condition to participate in the common game. Examples of the condition to participate in the common game include the accumulated bet amount being equal to or more than the predetermined amount and the accumulated bet amount being at least the N<sup>th</sup> largest amount. When the accumulated bet amount being equal to or more than the predetermined amount is employed as the condition to participate in the common game, an image showing a contrast between the accumulated bet amount at present and the predetermined amount may be used to notify the accumulated bet situation. When the accumulated bet amount being at least the N<sup>th</sup> largest amount is employed as the condition to participate in the common game, an image showing the number allocated to the gaming machine satisfying the condition and the accumulated bet amount in that gaming machine in combination may be used to notify the accumulated bet situation.

[0582] Accordingly, the player is allowed to know the relation between the accumulated bet amount at present and the

condition to participate in the common game, which may change from moment to moment, at any time.

[0583] When the accumulated bet situation shows that the condition to participate in the common game is likely to be satisfied, the player can reduce the amount of game media to bet. On the contrary, when the accumulated bet situation shows that the condition to participate in the common game is not likely to be satisfied, the player can increase the amount of game media to bet. Further, when the accumulated bet situation shows that the condition to participate in the common game cannot be satisfied, the player can quit the game. As above mentioned, the player can select his or her next action in accordance with the accumulated bet situation.

[0584] The present invention provides the following.

[0585] (48) A control method of a gaming system comprising: a plurality of gaming machines each provided with a controller: a server provided with a processor; an output device connected to the server or an output device provided in each of the gaming machines; and a network enabling communication between the gaming machines and the server,

[0586] the method comprising the steps of:

[0587] (A) the processor selecting, when a predetermined condition is satisfied, a gaming machine satisfying a specific condition out of the plurality of gaming machines as a gaming machine allowed to participate in a common game;

[0588] (B) the processor transmitting a common game execution signal to the gaming machine selected in the step (A):

[0589] (a) the controller determining at a predetermined timing whether or not a game is executed in the gaming machine provided with the above controller;

[0590] (b) the controller executing a common game on receiving the common game execution signal transmitted in the step (B), except for a case of determining that the game is not executed for a predetermined time after starting measuring at a predetermined start-up time of measuring; and

[0591] (X) the controller or the processor notifying the time elapsed from a predetermined start-up time of measuring until the predetermined time has elapsed, from the output device.

[0592] According to the invention of (48), when it is determined that the game has not been executed in the gaming machine continuously for a predetermined time after measuring is started at a predetermined start-up time of measuring (e.g. when it is determined that the number of credits has been zero for a predetermined time period), that gaming machine is not allowed to participate in the common game even it satisfies the specific condition. Namely, the gaming machine is ineligible to participate in the common game.

[0593] In this regard, according to the invention of (48), the output device notifies the time elapsed from a predetermined start-up time of measuring until the predetermined time has elapsed and it may give an index of the time in which the player can be away from the gaming machine.

[0594] In addition, in a case where the timing when the predetermined condition is satisfied is employed as the predetermined start-up time of measuring, even the gaming machine satisfying the specific condition cannot participate in the common game after the predetermined time has elapsed. This may prevent the delay of the start of the common game.

[0595] The present invention provides a server, a gaming system, a control method of the server offering a new entertainment, and a control method of the gaming system offering a new entertainment.

#### BRIEF DESCRIPTIONS OF THE DRAWINGS

[0596] FIG. 1A is a view illustrating an exemplary gaming system according to a first embodiment of a present invention. [0597] FIG. 1B is a view for explaining an accumulation percentage for the total prize amount and an accumulation percentage for the total Hidden amount.

[0598] FIG. 1C is a view for explaining an outline of the first embodiment of the present invention.

[0599] FIG. 1D is a view for explaining the outline of the first embodiment of the present invention.

[0600] FIG. 1E is a view for explaining the outline of the first embodiment of the present invention.

[0601] FIG. 1F is a view illustrating an exemplary image displayed on an upper image display panel provided in a gaming machine according to the first embodiment of the present invention.

[0602] FIG. 1G is a view illustrating an exemplary image displayed on the upper image display panel provided in the gaming machine according to the first embodiment of the present invention.

[0603] FIG. 1H is a view illustrating an exemplary image displayed on a middle image display panel provided in a gaming machine according to the first embodiment of the present invention.

[0604] FIG. 1I is a view for explaining an auto bet amount. [0605] FIG. 1J is a view for explaining the outline of the first embodiment of the present invention.

[0606] FIG. 2 is a view illustrating a function flow of the gaming machine according to the first embodiment of the present invention.

[0607] FIG. 3 is a view illustrating a gaming system including a gaming machine according to the first embodiment of the present invention.

[0608] FIG. 4 is a view illustrating an entire configuration of the gaming machine according to the first embodiment of the present invention.

[0609] FIG. 5 is a view illustrating arrangements of symbols drawn on peripheral faces of reels of the gaming machine according to the first embodiment of the present invention.

[0610] FIG. 6 is a block diagram illustrating an internal configuration of the gaming machine according to the first embodiment of the present invention.

[0611] FIG. 7 is a view illustrating a symbol combination table of the gaming machine according to the first embodiment of the present invention.

[0612] FIG. 8 is a block diagram illustrating an internal configuration of an external control device according to the first embodiment of the present invention.

[0613] FIG. 9 is a view illustrating a flowchart of main control processing for the gaming machine according to the first embodiment of the present invention.

[0614] FIG. 10 is a flowchart illustrating coin-insertion/start-check processing for the gaming machine according to the first embodiment of the present invention.

[0615] FIG. 11 is a view illustrating a flowchart of symbol lottery processing for the gaming machine according to the first embodiment of the present invention.

[0616] FIG. 12 is a view illustrating a flowchart of symbol display control processing for the gaming machine according to the first embodiment of the present invention.

[0617] FIG. 13 is a view illustrating a flowchart of amountof-payout determination processing for the gaming machine according to the first embodiment of the present invention.

[0618] FIG. 14 is a view illustrating a flowchart of bonus game processing for the gaming machine according to the first embodiment of the present invention.

[0619] FIG. 15 is a view illustrating an exemplary image displayed on a lower image display panel provided in the gaming machine according to the first embodiment of the present invention.

[0620] FIG. 16 is a view illustrating an exemplary image displayed on the lower image display panel provided in the gaming machine according to the first embodiment of the present invention.

[0621] FIG. 17 is a view illustrating an exemplary image displayed on the lower image display panel provided in the gaming machine according to the first embodiment of the present invention.

**[0622]** FIG. **18** is a view illustrating a flowchart of bet amount information reception processing executed by the external control device according to the first embodiment of the present invention.

**[0623]** FIG. **19** is a view illustrating a flowchart of betrelated amount update processing executed by the external control device according to the first embodiment of the present invention.

[0624] FIG. 20 is a view for explaining the bet-related amount.

[0625] FIG. 21 is a view illustrating a flowchart of participation determination processing executed by the external control device according to the first embodiment of the present invention.

[0626] FIG. 22A is a view illustrating a flowchart of craps game execution processing executed by the external control device according to the first embodiment of the present invention.

[0627] FIG. 22B is a view illustrating a flowchart of craps game execution processing executed by the external control device according to the first embodiment of the present invention.

[0628] FIG. 23 is a view illustrating a flowchart of auto-bet amount determination processing executed by the external control device according to the first embodiment of the present invention.

**[0629]** FIG. **24** is a view for supplementary explaining the auto-bet amount determination processing.

[0630] FIG. 25 is a view for supplementary explaining the auto-bet amount determination processing.

[0631] FIG. 26 is a view illustrating a flowchart of total Hidden amount display processing executed by the external control device according to the first embodiment of the present invention.

[0632] FIG. 27 is a view illustrating a flowchart of shooter appointment signal reception processing executed by the gaming machine according to the first embodiment of the present invention.

[0633] FIG. 28 is a view of craps game-related processing executed by the gaming machine according to the first embodiment of the present invention.

[0634] FIG. 29 is a view illustrating a flowchart of crapsgame occurrence signal reception processing executed by the gaming machine according to the first embodiment of the present invention.

[0635] FIG. 30A is a view illustrating an exemplary image displayed on the lower image display panel provided in a gaming machine according to the first embodiment of the present invention.

[0636] FIG. 30B is a view illustrating a flowchart of total Hidden amount display processing executed by an external control device according to another embodiment of the present invention.

[0637] FIG. 31 is a view for explaining an outline of a second embodiment of the present invention.

[0638] FIG. 32A is a view illustrating a flowchart of bet amount information reception processing executed by an external control device according to the second embodiment of the present invention.

[0639] FIG. 32B is a view illustrating a flowchart of betrelated amount update processing executed by the external control device according to the second embodiment of the present invention.

[0640] FIG. 32C is a view illustrating a flowchart of craps game execution processing executed by the external control device according to the second embodiment of the present invention.

[0641] FIG. 32D is a view illustrating a flowchart of total overflowing amount display processing executed by the external control device according to the second embodiment of the present invention.

[0642] FIG. 33A is a view illustrating a flowchart of betrelated amount update processing executed by the external control device according to the second embodiment of the present invention.

[0643] FIG. 33B is a view illustrating a flowchart of total overflow amount display processing executed by the external control device according to another embodiment of the present invention.

[0644] FIG. 34A is a view illustrating a gaming system including a management-side input device according to a third embodiment of the present invention.

[0645] FIG. 34B is a view illustrating an exemplary image displayed on a common display device provided in a gaming system according to the third embodiment of the present invention.

[0646] FIG. 34C is a view illustrating an exemplary image displayed on the common display device provided in a gaming system according to the third embodiment of the present invention.

[0647] FIG. 35 is a view illustrating input processing of craps game values executed by the external control device according to a third embodiment of the present invention.

[0648] FIG. 36A is a view illustrating a flowchart of craps game execution processing executed by the external control device according to the third embodiment of the present invention.

[0649] FIG. 36B is a view illustrating a flowchart of craps game execution processing executed by the external control device according to the third embodiment of the present invention.

[0650] FIG. 37A is a view illustrating an exemplary image displayed on an upper image display device provided in a gaming system according to a fourth embodiment of the present invention.

[0651] FIG. 37B is a schematic view illustrating a relation between auto bet amounts and gaming machines.

[0652] FIG. 38A is a view illustrating an exemplary image displayed on a middle image display device provided in a gaming system according to a fifth embodiment of the present invention

[0653] FIG. 38B is a view illustrating an exemplary image displayed on the middle image display device provided in the gaming system according to the fifth embodiment of the present invention.

[0654] FIG. 39A is a view illustrating a flowchart of participation determination processing executed by the external control device according to the fifth embodiment of the present invention.

[0655] FIG. 39B is a view illustrating a flowchart of participation determination processing executed by the external control device according to another embodiment of the present invention.

[0656] FIG. 40 is a view of craps-game occurrence signal reception processing executed by the gaming machine according to the fifth embodiment of the present invention.

[0657] FIG. 41A is a view illustrating an exemplary image displayed on a lower image display panel provided in a gaming system according to a sixth embodiment of the present invention

[0658] FIG. 41B is a view illustrating an exemplary image displayed on the lower image display panel provided in a gaming system according to the sixth embodiment of the present invention.

[0659] FIG. 41C is a view illustrating an exemplary image displayed on the lower image display panel provided in a gaming system according to the sixth embodiment of the present invention.

**[0660]** FIG. **41**D is a view illustrating an exemplary image displayed on the lower image display panel provided in a gaming system according to the sixth embodiment of the present invention.

[0661] FIG. 41E is a view illustrating an exemplary image displayed on the lower image display panel provided in a gaming system according to the sixth embodiment of the present invention.

[0662] FIG. 42 is a view illustrating a flowchart of bet amount information reception processing executed by an external control device according to the sixth embodiment of the present invention.

**[0663]** FIG. **43** is a view illustrating a flowchart of mode selection processing executed by the external control device according to the sixth embodiment of the present invention.

[0664] FIG. 44 is a view illustrating a flowchart of shooter appointment signal reception processing executed by a gaming machine according to the sixth embodiment of the present invention.

[0665] FIG. 45 is a view of craps-game occurrence signal reception processing executed by the gaming machine according to the sixth embodiment of the present invention.

[0666] FIG. 46 is a view illustrating a flowchart of mode selection processing executed by the external control device according to the sixth embodiment of the present invention.

[0667] FIG. 47 is a view of craps game-related processing executed by the gaming machine according to the sixth embodiment of the present invention.

[0668] FIG. 48 is a view illustrating input processing of professional-mode bet executed by the gaming machine according to the sixth embodiment of the present invention.

[0669] FIG. 49 is a view illustrating a flowchart of craps game execution processing executed by the external control device according to the sixth embodiment of the present invention.

[0670] FIG. 50 is a view illustrating a flowchart of auto-bet amount determination processing executed by the external control device according to the sixth embodiment of the present invention.

[0671] FIG. 51A is a view illustrating calculation processing of distribution amount in each mode executed by the external control device according to the sixth embodiment of the present invention.

[0672] FIG. 51B is a view for supplementary explaining the calculation processing of distribution amount in each mode. [0673] FIG. 52A is a view illustrating a flowchart of mode selection processing executed by an external control device according to another embodiment of the present invention.

[0674] FIG. 52B is a view illustrating a flowchart of mode selection processing executed by a gaming machine according to another embodiment of the present invention.

[0675] FIG. 52C is a view illustrating professional-mode bet input processing executed by the gaming machine according to another embodiment of the present invention.

[0676] FIG. 53A is a view illustrating an exemplary image displayed on a lower image display panel provided in a gaming machine according to a seventh embodiment of the present invention.

[0677] FIG. 53B is a view illustrating an exemplary image displayed on the lower image display panel provided in the gaming machine according to the seventh embodiment of the present invention.

[0678] FIG. 54 is a view illustrating an individual bet amount display processing executed by the gaming machine according to the seventh embodiment of the present invention.

[0679] FIG. 55A is a view illustrating a flowchart of timeout display processing executed by the gaming machine according to the seventh embodiment of the present invention.

**[0680]** FIG. **55**B is a view illustrating a flowchart of timeout display processing executed by a gaming machine according to another embodiment of the present invention.

[0681] FIG. 56 is a view illustrating a flowchart of participation determination processing executed by the external control device according to the seventh embodiment of the present invention.

[0682] FIG. 57A is a view illustrating a flowchart of craps game execution processing executed by an external control device according to another embodiment of the present invention.

[0683] FIG. 57B is a view illustrating a flowchart of craps game execution processing executed by the external control device according to another embodiment of the present invention.

# DESCRIPTION OF THE EMBODIMENT

[0684] Hereinafter, embodiments (first embodiment to seventh embodiment) of the present invention will be described.
[0685] The inventions of (1) to (11) are described in a first embodiment.

[0686] The inventions of (12) to (20) are described in a second embodiment.

[0687] The inventions of (21) to (26) are described in a third embodiment.

[0688] The inventions of (27) to (30) are described in a fourth embodiment.

[0689] The inventions of (31) to (35) are described in a fifth embodiment.

[0690] The inventions of (36) to (41) are described in a sixth embodiment.

[0691] The inventions of (42) to (48) are described in a seventh embodiment.

## First Embodiment

**[0692]** The inventions of (1) to (11) are described in the first embodiment.

[0693] An outline of the first embodiment is described with reference to FIG. 1.

[0694] FIG. 1 are conceptual views for explaining the outline of the present embodiment.

[0695] FIG. 1A is a view illustrating an example of a gaming system 300 according to the present embodiment.

[0696] An external control device 200 (see FIG. 3) provided in the gaming system 300 according to the present embodiment is connected with a plurality of gaming machines 1 (see FIG. 1A) through communication lines 301 (see FIG. 3)

[0697] The external control device 200 corresponds to the server of the present invention. The communication lines 301 corresponds to the network of the present invention.

[0698] In each gaming machine 1 according to the present embodiment, a slot game is executed (see FIG. 15 to FIG. 17). When a predetermined condition is satisfied, a craps game in which a plurality of gaming machines can participate starts (see FIG. 30A).

[0699] The craps game corresponds to the common game of the present invention.

[0700] FIG. 1A illustrates a state where a middle image display panel 650 provided in each of the gaming machines 1 displays a value of 47600 that is the total prize amount.

[0701] In the present embodiment, the total prize amount is displayed on the middle image display panel 650. The total prize amount refers to an accumulated amount of a part of a bet amount in slot games. The total prize amount is the amount of a resource of a prize in the craps game.

[0702] In the present embodiment, when the value of the total prize amount is larger than a predetermined value (15000), the current total prize amount is displayed on the middle image display panel 650 and is used as the resource of the prizes in the craps game. On the other hand, when the value of the total prize amount becomes equal to or smaller than the predetermined value (15000), a total value of the total prize amount and a total Hidden amount is employed as a new total prize amount. Then, the new total prize amount is displayed on the middle image display panel 650 and is used as the resource of the prize in the craps game. The total Hidden amount refers to an accumulated amount of a part of a bet amount in the slot game, as same as the total prize amount.

[0703] Data indicative of the total prize amount corresponds to the first resource data of the present invention. Data indicative of the total Hidden amount corresponds to the second resource data of the present invention. The middle image display panel 650 corresponds to the output device of the present invention.

[0704] FIG. 1 B is a schematic view illustrating an accumulation percentage for the total prize amount per bet and an accumulation percentage for the total Hidden amount per bet.

[0705] As illustrated in FIG. 1B, the accumulation percentage for the total prize amount is 14%. Further, the accumulation percentage for the total Hidden amount is 2%. Namely, when the bet amount per bet is 100, 14 is accumulated as the total prize amount and 2 is accumulated as the total Hidden amount.

[0706] A game information image 1400 of FIG. 1F also notifies that a part of the bet amount betted to the slot game is accumulated as a prize to be offered in the craps game.

[0707] FIG. 1C to FIG. 1E are schematic views each illustrating a relation between the total prize amount and the total Hidden amount.

[0708] FIG. 1C illustrates a state where the middle image display panel 650 displays a value of 47600 that is the total prize amount in a case where the value of the total prize amount is larger than the predetermined value (15000).

[0709] FIG. 1D illustrates a state where the middle image display panel 650 displays a total value (22000) of the total prize amount (0) and the total Hidden amount (22000) in a case where the value of the total prize amount becomes equal to or smaller than the predetermined value (15000).

[0710] Accordingly, when the value of the total prize amount is larger than the predetermined value (15000), the total prize amount is displayed on the middle image display panel 650. Further, when the value of the total prize amount becomes equal to or smaller than the predetermined value (15000), the total value of the total prize amount and the total Hidden amount is displayed as a new total prize amount on the middle image display panel 650.

[0711] FIG. 15 illustrates a state where a payout of a prize (23600) in the craps game has been conducted in the situation where the total prize amount is 47600 as illustrated in FIG. 1C. Since the value of the total prize amount (24000) is larger than the predetermined value (15000), the middle image display panel 650 displays 24000 that is the value of the total prize amount.

[0712] As described above, when the value of the total prize amount is larger than the predetermined value, the total prize amount is displayed on the middle image display panel 650 and is used as the resource of the prizes in the craps game. On the other hand, when the value of the total prize amount is equal to or smaller than the predetermined value, the total amount of the current total prize amount and the total Hidden amount is employed as a new total prize amount. Accordingly, the new total amount of the prizes is displayed on the middle image display panel 650 and is used as the resource of prizes in the craps game.

[0713] FIG. 1F shows an exemplary image displayed on an upper image display panel 131.

[0714] As shown in the game information image 1400 of FIG. 1F, a craps game in which a plurality of gaming machine can participate starts when an event triggering condition is satisfied. The event triggering condition is a condition that an individual bet amount in any of the gaming machines has reached the event triggering amount.

[0715] As shown in the game information image 1400 of FIG. 1F, the individual bet amount is calculated in the present embodiment. Here, the individual bet amount refers to the accumulated amount of the bet amount betted to the slot game, for each gaming machine. Accordingly, in the present embodiment, the bet amount in the slot game executed in each gaming machine is accumulated as the individual bet amount.

[0716] It is to be noted the individual bet amount corresponds to the accumulated bet amount of the present invention.

[0717] In the present embodiment, the craps game starts, when the event triggering condition is satisfied, namely, the individual bet amount in any of the gaming machines has reached the event triggering amount.

[0718] The event triggering condition corresponds to the predetermined condition of the present invention.

[0719] The craps game is a game in which the result is determined by the outcome of two dice. In the craps game, a player is selected as a shooter who rolls dice, out of a plurality of players. Based on the outcome of dice, the shooter or the dealer wins the game. For example, when the outcome of the dice roll is 7 or 11, the shooter wins the game. On the other hand, when the outcome of the dice roll is 2, 3, or 12, the dealer wins the game. Participants of the craps game can bet on the shooter's winning or the dealer's winning. A bet on the shooter's winning made by the participants of the craps game is referred to as a pass line bet.

[0720] In the craps game according to the present embodiment, one of gaming machines 1 is selected as the shooter. Then, the gaming machine allowed to participate in the craps game is selected from the gaming machines other than the gaming machine having selected as the shooter (hereinafter, also referred to as shooter gaming machine). Hereinafter, the gaming machine participating in the craps game among the gaming machines other than the shooter gaming machine is referred to as a non-shooter gaming machine.

[0721] FIG. 1G shows an exemplary image displayed on an upper image display panel 131.

[0722] As shown in a game information image 1410 of FIG. 1G, the bet amount set for the craps game (hereinafter, also referred to as auto bet amount) is increased along with the increase in the individual bet amount. The auto bet amount is a bet amount determined in accordance with the individual bet amount and set for the pass line bet in the gaming machine participating in the craps game. The auto bet amount is specifically described later with reference to FIG. 1I.

[0723] In addition, as shown in the game information image 1410 of FIG. 1G, the game media to be paid out when the shooter wins in the craps game is increased in accordance with the increase in the bet amount (auto bet amount) set for the craps game.

[0724] Further, as shown in the game information image 1410 of FIG. 1G, when the shooter wins in the craps game, the game media within the total prize amount is paid out to the gaming machine participating in the craps game. Namely, the larger total prize amount allows a payout of a larger amount of game media.

[0725] FIG. 1H is an exemplary image displayed on the middle image display panel 650.

[0726] As shown in a common game start image 1420 of FIG. 1H, the craps game is executed as the common game in the present embodiment.

[0727] FIG. 1I is a view for explaining the auto bet amount. [0728] The auto bet amount according to the present embodiment has the following characteristics.

[0729] (I) The auto bet amount is increased along with the increase in the individual bet amount.

[0730] (II) The auto bet amount is set for the pass line bet (bet on the shooter's winning).

[0731] (III) The auto bet amount includes an auto bet amount for shooter and an auto bet amount for non shooter.

[0732] (IV) A player needs not to bet game media for the auto bet amount.

[0733] First, (I) is described.

[0734] As illustrated in FIG. 1I, the gaming machine 1 allocated with the terminal number 002 has the largest individual bet amount (100000) among five gaming machines. In addition, the gaming machine 1 allocated with the terminal number 002 and having the largest individual bet amount has the auto bet amount of 50000, and that amount is largest among those in five gaming machines. Accordingly, the auto bet amount is increased along with the increase in the individual bet amount.

[0735] Next, (II) is described.

[0736] As mentioned above, the auto bet amount is set for the pass line bet (bet on the shooter's winning). In the present embodiment, the auto bet amount is set for the pass line bet irrespective of the player's intention.

[0737] Next, (III) is described.

[0738] The auto bet amount for shooter is the bet amount set in the shooter gaming machine. The auto bet amount for non shooter is the bet amount set in the non-shooter gaming machine. Accordingly, the auto bet amount includes the auto bet amount for shooter and the auto bet amount for non shooter.

[0739] Now, (IV) is described.

[0740] In the present embodiment, the player can play a craps game without consuming his or her own credits.

[0741] FIG. 1J is an example of the gaming machine according to the present embodiment.

[0742] FIG. 1J illustrates a state where the shooter wins in the craps game in which all gaming machines are participating. As illustrated in FIG. 1J, an image indicative of an amount of payout corresponding to the auto bet amount (see FIG. 1I) in each gaming machine is displayed on the middle image display panel 650 provided in each gaming machine.

[0743] As illustrated in FIG. 1J, the amount of payout when the shooter wins in the craps game is the same amount as the auto bet amount in the present embodiment. For example, when the auto bet amount in the gaming machine with the terminal number 001 is 8000, the prize won in the craps game is 8000. Accordingly, when the shooter wins in the craps game, the player can get the amount indicated by the auto bet amount without reducing his or her own credits.

[0744] As above, the outline of the first embodiment has been described with reference to FIG. 1A to FIG. 1J.

[0745] Hereinafter, the present embodiment is more specifically described.

[Explanation of Function Flow Diagram]

[0746] With reference to FIG. 2, basic functions of a gaming system according to the present embodiment are described.

[0747] FIG. 2 is a view illustrating a function flow of the gaming system according to an embodiment of the present invention.

<Coin-Insertion/Start-Check>

[0748] First, the gaming machine checks whether or not a bet button has been pressed by a player, and subsequently checks whether or not a spin button has been pressed by the

player. Here, the gaming machine transmits bet amount information indicative of the bet amount to an external control device in each game.

#### <Symbol Determination>

[0749] Next, when the spin button has been pressed by the player, the gaming machine extracts random values for symbol determination, and determines symbols to be displayed at the time of stopping scrolling of symbol arrays for the player, for a plurality of respective video reels displayed to a display.

## <Symbol Display>

[0750] Next, the gaming machine starts scrolling of the symbol array of each of the video reels and then stops scrolling so that the determined symbols are displayed for the player.

# <Winning Determination>

[0751] When scrolling of the symbol array of each video reel has been stopped, the gaming machine determines whether or not a combination of symbols displayed for the player is a combination related to winning.

#### <Payout>

**[0752]** When the combination of symbols displayed for the player is a combination related to winning, the gaming machine offers benefits according to the combination to the player.

[0753] For example, when a combination of symbols related to a payout of coins has been displayed, the gaming machine pays out coins of the number corresponding to the combination of symbols to the player.

[0754] Further, when a combination of symbols related to a bonus game trigger has been displayed, the gaming machine starts a bonus game. It is to be noted that, in the present embodiment, a game (free game) in which a lottery relating to the aforementioned determination of to-be stopped symbols is held a predetermined number of times without using coins is played as a bonus game.

[0755] The external control device accumulates a part of the bet amount indicated by the bet amount information transmitted from each gaming machine as the total prize amount. Then, the external control device starts a craps game in which a plurality of gaming machines can participate, when an event triggering condition is satisfied. When the player wins in the craps game, the gaming machine conducts a payout using coins of the total prize amount as a resource.

[0756] Further, in addition to the aforementioned benefits, the gaming machine is provided with benefits such as a mystery bonus.

[0757] The mystery bonus is a bonus in which a predetermined amount of coins are paid out for winning of a lottery that is intended for the mystery bonus. When the spin button has been pressed, the gaming machine extracts a random value for mystery bonus and determines whether or not to establish a mystery bonus trigger by lottery.

# <Determination of Effects>

[0758] The gaming machine produces effects by displaying images to the display, outputting the light from lamps, and outputting sounds from speakers. The gaming machine

extracts a random value for effect and determines contents of the effects based on the symbols and the like determined by lottery.

### [Overall Gaming System]

[0759] The basic functions of the gaming machine have been described above. Next, with reference to FIG. 3, a gaming system including the gaming machine is described.

[0760] FIG. 3 is a view illustrating the gaming system including the gaming machine according to the embodiment of the present invention.

[0761] A gaming system 300 includes a plurality of gaming machines 1, and an external control device 200 that is connected to each of the gaming machines 1 through a communication line 301.

[0762] The external control device 200 is for controlling the plurality of gaming machines 1. In the present embodiment, the external control device 200 is a so-called hall server which is installed in a game facility having the plurality of gaming machines 1. Each of the gaming machines 1 is provided with a unique identification number, and the external control device 200 identifies transmission sources of data transmitted from the respective gaming machines 1 by using the identification numbers. Also in the case where the external control device 200 transmits data to a gaming machine 1, the identification numbers are used for specifying the transmission destination.

[0763] It is to be noted that the gaming system 300 may be constructed within a single game facility where various games can be conducted, such as a casino, or may be constructed among a plurality of game facilities. Further, when the gaming system 300 is constructed in a single game facility, the gaming system 300 may be constructed in each floor or section of the game facility. The communication line 301 may be a wired or wireless line, and can adopt a dedicated line, an exchange line or the like.

# [Overall Configuration of Gaming Machine]

[0764] The gaming system according to the present embodiment has beep described above. Next, with reference to FIG. 4, an overall configuration of the gaming machine 1 is described.

[0765] FIG. 4 is a view illustrating the overall configuration of the gaming machine according to the embodiment of the present invention.

[0766] A coin, a bill, or electrically valuable information corresponding to these is used as a game medium in the gaming machine 1. Further, in the present embodiment, a later-described ticket with a barcode is also used. It is to be noted that the game medium is not limited to these, and for example a medal, a token, electric money or the like can be adopted.

[0767] The gaming machine 1 includes a cabinet 11, a top box 12 installed on the upper side of the cabinet 11, and a main door 13 provided at the front face of the cabinet 11.

[0768] A lower image display panel 141 is provided at the center of the main door 13. The lower image display panel 141 includes a liquid crystal panel, and forms the display. The lower image display panel 141 has a symbol display region 4. To the symbol display region 4, five video reels 3 (3a, 3b, 3c, 3d, 3e) are displayed.

[0769] In the present embodiment, a video reel depicts through videos the rotational and stop motions of a mechani-

cal reel having a plurality of symbols drawn on the peripheral surface thereof. To each of the video reels 3, a symbol array comprised of a previously determined plurality (22 in the present embodiment) of symbols is assigned (see FIG. 5 which is described later).

[0770] In the symbol display region 4, the symbol arrays assigned to the respective video reels 3 are separately scrolled, and are stopped after predetermined time has elapsed. As a result, a part (four consecutive symbols in the present embodiment) of each of the symbol arrays is displayed for the player.

[0771] The symbol display region 4 has four regions, namely an upper region, an upper central region, a lower central region, and a lower region, for each video reel 3, and a single symbol is to be displayed to each region. That is, 20 (=5 columns×4 symbols) symbols are to be displayed in the symbol display region 4.

[0772] In the present embodiment, a line formed by selecting one of the aforementioned four regions for each of the video reels 3 and connecting the respective regions is referred to as a winning line.

[0773] It is to be noted that any desired shape of the winning line can be adopted, and examples of the shape of the winning line may include a straight line formed by connecting the upper central regions for the respective video reels 3, a V-shaped line, and a bent line. Also, any desired number of lines can be adopted, and the number can be for example 30 lines.

[0774] Further, the lower image display panel 141 has a number-of-credits display region 142 and a number-of-payouts display region 143. The number-of-credits display region 142 displays the number of coins (hereinafter also referred to as "the number of credits") owned by the player and retained inside the gaming machine 1. The number-of-payouts display region 143 displays the number of coins (hereinafter also referred to as "the number of payouts") to be paid out to the player when winning is established.

[0775] The lower image display panel 141 has a built-in touch panel 114. The player can input various commands by touching the lower image display panel 141.

[0776] On the lower side of the lower image display panel 141, there are arranged various buttons set in a control panel 30, and various devices to be operated by the player.

[0777] A spin button 31 is used when starting scrolling of the symbol arrays of the respective video reels 3. A change button 32 is used when requesting a game facility staff member to exchange money. A CASHOUT button 33 is used when paying out the coins retained inside the gaming machine 1 to a coin tray 15.

[0778] A 1-bet button 34 and a maximum bet button 35 are used for determining the number of coins (hereinafter also referred to as "the number of bets") to be used in the game from the coins retained inside the gaming machine 1. The 1-bet button 34 is used when determining one coin at a time for the aforementioned number of bets. The maximum bet button 35 is used when setting the aforementioned number of bets to a defined upper limit number.

[0779] The 1-bet button 34 and the maximum bet button 35 each corresponds to the input device of the present invention. In the present embodiment, the case is described where bet buttons are employed as the input device. However, the input device of the present invention is not particularly limited and a conventionally known input device may be used such as a

touch panel, a currency insertion slot capable of accepting currency including coins and bills, in addition to buttons.

[0780] A coin accepting slot 36 is provided to accept coins. A bill validator 115 is provided to accept bills. The bill validator 115 validates a bill, and accepts a valid bill into the cabinet 11. It is to be noted that the bill validator 115 may be configured so as to be capable of reading a later-described ticket 175 with a barcode.

[0781] An upper image display panel 131 is provided at the front face of the top box 12. The upper image display panel 131 includes a liquid crystal panel, and forms the display. The upper image display panel 131 displays images related to effects and images showing introduction of the game contents and explanation of the game rules. Further, the top box 12 is provided with a speaker 112 and a lamp 111. The gaming machine 1 produces effects by displaying images, outputting sounds, and outputting the light.

[0782] Under the upper image display panel 131, a middle image display panel 650 is provided. The middle image display panel 650 displays an image related to an effect in the craps game. It is to be noted that a touch panel 113 is built into the middle image display panel 650. The player can input various commands by touching the middle image display panel 650.

[0783] A ticket printer 171, a card slot 176, a data display 174, and a keypad 173 are provided on the lower side of the middle image display panel 650.

[0784] The ticket printer 171 prints on a ticket a barcode representing encoded data of the number of credits, date, the identification number of the gaming machine 1, and the like, and outputs the ticket as the ticket 175 with a barcode. The player can make a gaming machine read the ticket 175 with a barcode so as to play a game thereon, and can also exchange the ticket 175 with a barcode with a bill or the like at a predetermined place (e.g. a cashier in a casino) in the game facility.

[0785] The card slot 176 is for inserting a card in which predetermined data is stored. For example, the card stores data for identifying the player, and data about the history of games played by the player.

[0786] When the card is inserted into the card slot 176, a later-described card reader 172 reads data from the card or writes data into the card. It is to be noted that the card may store data corresponding to a coin, a bill or a credit.

[0787] The data display 174 includes a fluorescent display, LEDs and the like, and displays the data read by the card reader 172 or the data inputted by the player via the keypad 173, for example. The keypad 173 is for inputting a command and data related to ticket issuance or the like.

[Symbol Arrays of Video Reels]

[0788] The overall configuration of the gaming machine 1 has been described above. Next, with reference to FIG. 5, a configuration of the symbol arrays included in the video reels 3 of the gaming machine 1 is described.

[0789] FIG. 5 is a view illustrating arrangement of symbols that are drawn on the peripheral surfaces of the reels of the gaming machine according to the embodiment of the present invention.

[0790] A first video reel 3a, a second video reel 3b, a third video reel 3c, a fourth video reel 3d, and a fifth video reel 3e each is assigned with a symbol array consisting of 22 symbols that correspond to respective code numbers from "00" to "21".

[0791] Types of the symbols provided are "JACKPOT 7", "BLUE 7", "BELL", "CHERRY", "STRAWBERRY", "PLUM", "ORANGE" and "APPLE".

[Configuration of Circuit Included in Gaming Machine]

[0792] The configuration of the symbol arrays included in the video reels 3 of the gaming machine 1 has been described above. Next, with reference to FIG. 6, a configuration of a circuit included in the gaming machine 1 is described.

[0793] FIG. 6 is a block diagram illustrating an internal configuration of the gaming machine according to the embodiment of the present invention.

[0794] A gaming board 50 is provided with: a CPU 51, a ROM 52, and a boot ROM 53, which are mutually connected by an internal bus: a card slot 55 corresponding to a memory card 54; and an IC socket 57 corresponding to a GAL (Generic Array Logic) 56.

[0795] The memory card 54 includes a non-volatile memory, and stores a game program and a game system program. The game program includes a program related to game progression, a lottery program, and a program for producing effects by images and sounds (e.g. see FIGS. 9 to 14 which are described later). Further, the aforementioned game program includes data (see FIG. 5) specifying the configuration of the symbol array assigned to each video reel 3.

[0796] The lottery program is a program for determining to-be stopped symbol of each video reel 3 by lottery. The to-be stopped symbol is data for determining four symbols to be displayed to the symbol display region 4 out of the 22 symbols forming each symbol array. The gaming machine 1 of the present embodiment determines as the to-be stopped symbol the symbol to be displayed in a predetermined region (e.g. the upper region) out of the four regions provided for each of the video reels 3 of the symbol display region 4.

[0797] The aforementioned lottery program includes symbol determination data. The symbol determination data is data that specifies random values so that each of the 22 symbols (code numbers from "00" to "21") forming the symbol array is determined at an equal probability (i.e. ½2), for each video reel 3.

[0798] The probabilities of the respective 22 symbols being determined are basically equal. However, the numbers of the respective types of symbols included in the 22 symbols vary, and thus the probabilities of the respective types of symbols being determined vary (i.e. different weights on the probabilities are generated). For example, with reference to FIG. 5, the symbol array of the first video reel 3a includes one symbol of "JACKPOT 7", and includes seven symbols of "ORANGE". Hence, the former is determined at the probability of " $\frac{1}{2}$ 2", whereas the latter is determined at the probability of " $\frac{7}{2}$ 2".

[0799] It is to be noted that, although the data specifies that the equal numbers of symbols be provided to form the symbol arrays of the respective video reels  $\bf 3$  in the present embodiment, different numbers of symbols may form the respective video reels  $\bf 3$ . For example, the symbol array of the first video reel  $\bf 3a$  may consist of 22 symbols whereas the symbol array of the second video reel  $\bf 3b$  may consist of 30 symbols. Such a configuration increases the degree of freedom in setting the probabilities of the respective types of symbols being determined for each video reel  $\bf 3$ .

[0800] Further, the card slot 55 is configured so that the memory card 54 can be inserted thereinto and removed therefrom, and is connected to a motherboard 70 by an IDE bus.

[0801] The GAL 56 is a type of PLD (Programmable Logic Device) having a fixed OR array structure. The GAL 56 is provided with a plurality of input ports and output ports, and predetermined input into the input port causes output of the corresponding data from the output port.

[0802] Further, the IC socket 57 is configured so that the GAL 56 can be inserted thereinto and removed therefrom, and is connected to the motherboard 70 by a PCI bus. The contents of the game to be played on the gaming machine 1 can be changed by replacing the memory card 54 with another memory card 54 having another program written therein or by rewriting the program written into the memory card 54 as another program.

[0803] The CPU 51, the ROM 52 and the boot ROM 53 mutually connected by the internal bus are connected to the motherboard 70 by a PCI bus. The PCI bus enables a signal transmission between the motherboard 70 and the gaming board 50, and power supply from the motherboard 70 to the gaming board 50.

[0804] The ROM 52 stores an authentication program. The boot ROM 53 stores a pre-authentication program, a program (boot code) to be used by the CPU 51 for activating the pre-authentication program, and the like.

[0805] The authentication program is a program (tamper check program) for authenticating the game program and the game system program. The pre-authentication program is a program for authenticating the aforementioned authentication program. The authentication program and the pre-authentication program are written along a procedure (authentication procedure) for proving that the program to be the subject has not been tampered.

[0806] The motherboard 70 is provided with a main CPU 71, a ROM 72, a RAM 73, and a communication interface 82. The mother board 70 corresponds to the controller of the present invention. In the present embodiment, the controller includes one CPU called the main CPU 71. However, the controller of the present invention may include a plurality of CPUs.

[0807] The ROM 72 includes a memory device such as a flash memory, and stores a program such as BIOS to be executed by the main CPU 71, and permanent data. When the BIOS is executed by the main CPU 71, processing for initializing predetermined peripheral devices is conducted; further, through the gaming board 50, processing of loading the game program and the game system program stored in the memory card 54 is started.

[0808] The RAM 73 stores data and programs which are used in operation of the main CPU 71. For example, when the processing of loading the aforementioned game program, game system program or authentication program is conducted, the RAM 73 can store the program. The RAM 73 is provided with working areas used for operations in execution of these programs. Examples of the areas include: an area that stores the number of games, the number of bets, the number of payouts, the number of credits and the like; and an area that stores symbols (code numbers) determined by lottery.

[0809] The communication interface 82 is for communicating with the external control device 200 such as a server, through the communication line 301. Further, the mother-board 70 is connected with a later-described door PCB (Printed Circuit Board) 90 and a body PCB 110 by respective USBs. The motherboard 70 is also connected with a power supply unit 81.

[0810] When the power is supplied from the power supply unit 81 to the motherboard 70, the main CPU 71 of the motherboard 70 is activated, and then the power is supplied to the gaming board 50 through the PCI bus so as to activate the CPU 51.

[0811] The door PCB 90 and the body PCB 110 are connected with input devices such as a switch and a sensor, and peripheral devices the operations of which are controlled by the main CPU 71.

[0812] The door PCB 90 is connected with a control panel 30, a reverter 91, a coin counter 92C and a cold cathode tube 93.

[0813] The control panel 30 is provided with a spin switch 31S, a change switch 32S, a CASHOUT switch 33S, a 1-bet switch 34S and a maximum bet switch 35S which correspond to the aforementioned respective buttons. Each of the switches outputs a signal to the main CPU 71 upon detection of press of the button corresponding thereto by the player.

[0814] The coin counter 92C validates a coin inserted into the coin accepting slot 36 based on its material, shape and the like, and outputs a signal to the main CPU 71 upon detection of a valid coin. Invalid coins are discharged from a coin payout exit 15A.

[0815] The reverter 91 operates based on a control signal outputted from the main CPU 71, and distributes valid coins validated by the coin counter 92C into a hopper 113 or a cash box (not illustrated). That is, coins are distributed into the hopper 113 when the hopper 113 is not filled with coins, while coins are distributed into the cash box when the hopper 113 is filled with coins.

[0816] The cold cathode tube 93 functions as a backlight installed on the rear face sides of the upper image display panel 131, the middle image display panel 650, and the lower image display panel 141, and lights up based on a control signal outputted from the main CPU 71.

[0817] The body PCB 110 is connected with the lamp 111, the speaker 112, the hopper 113, a coin detecting portion 113S, the touch panel 114, the bill validator 115, a graphic board 130, the ticket printer 171, the card reader 172, a key switch 173S and the data display 174.

[0818] The lamp 111 lights up based on a control signal outputted from the main CPU 71. The speaker 112 outputs sounds such as BGM, based on a control signal outputted from the main CPU 71.

[0819] The hopper 113 operates based on a control signal outputted from the main CPU 71, and pays out coins of the specified number of payouts from the coin payout exit 15A to the coin tray 15. The coin detecting portion 113S outputs a signal to the main CPU 71 upon detection of coins paid out by the hopper 113.

[0820] The touch panel 114 detects a place on the lower image display panel touched by the player's finger or the like, and outputs to the main CPU 71a signal corresponding to the detected place. Upon acceptance of a valid bill, the bill validator 115 outputs to the main CPU 71a signal corresponding to the face amount of the bill.

[0821] The graphic board 130 controls display of images conducted by the respective upper image display panel 131, middle image display panel 650, and lower image display panel 141, based on a control signal outputted from the main CPU 71. The symbol display region 4 of the lower image display panel 141 displays the five video reels 3 by which the scrolling and stop motions of the symbol arrays included in the respective video reels 3 are displayed. The graphic board

130 is provided with a VDP generating image data, a video RAM temporarily storing the image data generated by the VDP, and the like. The number-of-credits display region 142 of the lower image display panel 141 displays the number of credits stored in the RAM 73. The number-of-payouts display region 143 of the lower image display panel 141 displays the number of payouts of coins.

[0822] The graphic board 130 is provided with the VDP (Video Display Processor) generating image data based on a control signal outputted from the main CPU 71, the video RAM temporarily storing the image data generated by the VDP, and the like. It is to be noted that the image data used in generation of image data by the VDP is included in the game program that has been read from the memory card 54 and stored into the RAM 73.

[0823] Based on a control signal outputted from the main CPU 71, the ticket printer 171 prints on a ticket a barcode representing encoded data of the number of credits stored in the RAM 73, date, the identification number of the gaming machine 1, and the like, and then outputs the ticket as the ticket 175 with a barcode.

[0824] The card reader 172 reads data stored in a card inserted into the card slot 176 and transmits the data to the main CPU 71, or writes data into the card based on a control signal outputted from the main CPU 71.

[0825] The key switch 173S is provided in the keypad 173, and outputs a predetermined signal to the main CPU 71 when the keypad 173 has been operated by the player.

[0826] The data display 174 displays data read by the card reader 172 and data inputted by the player through the keypad 173, based on a control signal outputted from the main CPU 71.

[Configuration of Symbol Combination Table]

[0827] The circuit configuration of the gaming machine 1 has been described above. Next, with reference to FIG. 7, a symbol combination table is described.

[0828] FIG. 7 is a view illustrating a symbol combination table of the gaming machine according to the embodiment of the present invention.

[0829] The symbol combination table specifies combinations of drawn symbols relating to winning, and the number of payouts. On the gaming machine 1, the scrolling of symbol arrays of the respective video reels 3 is stopped, and winning is established when the combination of symbols displayed along the winning line matches one of the combinations of symbols specified by the symbol combination table. According to the winning combination, a benefit such as payout of coins or start of a bonus game is offered to the player. It is to be noted that winning is not established (i.e. the game is lost) when the combination of symbols displayed along the winning line does not match any of the combinations of symbols specified by the symbol combination table.

[0830] Basically, winning is established when all symbols displayed along the winning line by the respective video reels 3 are of one type out of "JACKPOT 7", "APPLE", "BLUE 7", "BELL", "CHERRY", "STRAWBERRY", "PLUM" and "ORANGE". However, with respect to the respective types of symbols of "CHERRY" and "ORANGE", winning is also established when one or three symbols of either type are displayed along the winning line by the video reels 3.

[0831] For example, when all the symbols displayed along the winning line by all the video reels 3 are "BLUE 7", the winning combination is "BLUE", and "10" is determined as

the number of payouts. Based on the determined number of payouts, payout of coins is conducted. The payout of coins is conducted by actually discharging coins from the coin payout exit 15A or adding the determined number of payouts to the number of credits, or issuing a ticket with a barcode.

[0832] "JACKPOT 7" is a symbol related to the jackpot trigger. When all the symbols displayed along the winning line by all the video reels 3 are "JACKPOT 7", the winning combination is "jackpot", and the amount of jackpot is determined as the number of payouts.

[0833] "APPLE" is a symbol related to the bonus-game trigger. When all the symbols displayed along the winning line by all the video reels 3 are "APPLE", the winning combination is "bonus game trigger", and bonus games start from the next game.

[Configuration of Circuit Included in External Control Device]

[0834] The description has been given on the configuration of the circuit of the gaming machine 1. Next, the configuration of the circuit included in the external control device 200 is described with reference to FIG. 8.

[0835] FIG. 8 is a block diagram illustrating the internal configuration of the external control device according to the embodiment of the present invention.

[0836] A control unit is provided inside the external control device 200. The control unit includes components such as a motherboard 240, a gaming board 250, and a power supply unit 245

[0837] The gaming board has the same configuration as the gaming board 50 in the gaming machine 1. Namely, the gaming board 250 is provided with a CPU 251, a ROM 255, a boot ROM 252, a card slot 253S corresponding to a memory card 253, and an IC socket 2543 corresponding to a GAL 254.

[0838] The motherboard 240 has the same configuration as the motherboard 70 in the gaming machine 1. Namely, the motherboard 240 is provided with a main CPU 241, a ROKM 242, and a RAM 243.

[0839] The motherboard 240 corresponds to the processor of the present invention. Though the processor includes one CPU called the main CPU 241 in the present embodiment, the processor of the present invention may include a plurality of CPUs.

**[0840]** The RAM **243** is provided with an individual bet amount storage area for storing individual bet amount data, a total prize amount storage area for storing total prize amount data, a total Hidden amount storage area for storing total Hidden amount data, and a total bonus amount storage area for storing total bonus amount data.

[0841] The total prize amount storage area corresponds to the first storage area of the present invention. The total Hidden amount storage area corresponds to the second storage area of the present invention. The RAM 243 corresponds to the memory device of the present invention.

[0842] A communication part 244 is for communicating with the gaming machines 1 through a communication line.

[Contents of Program]

[0843] The symbol combination table has been described above. Next, with reference to FIGS. 9 to 14, the program to be executed by the gaming machine 1 is described.

<Main Control Processing>

[0844] First, with reference to FIG. 9, main control processing is described.

[0845] FIG. 9 is a view illustrating a flowchart of the main control processing for the gaming machine according to the embodiment of the present invention.

[0846] First, when the power is supplied to the gaming machine 1, the main CPU 71 reads the authenticated game program and game system program from the memory card 54 through the gaming board 50, and writes the programs into the RAM 73 (step S11).

[0847] Next, the main CPU 71 conducts at-one-game-end initialization processing (step S12). For example, data that becomes unnecessary after each game in the working areas of the RAM 73, such as the number of bets and the symbols determined by lottery, is cleared.

[0848] The main CPU 71 conducts coin-insertion/start-check processing which is described later with reference to FIG. 10 (step S13). In the processing, input from the bet switch and the spin switch is checked.

[0849] The main CPU 71 then conducts symbol lottery processing which is described later with reference to FIG. 11 (step S14). In the processing, to-be stopped symbols are determined based on the random values for symbol determination.

[0850] Next, the main CPU 71 conducts mystery bonus lottery processing (step S15). In the processing, lottery determining whether or not to establish a mystery bonus trigger is held. For example, the main CPU 71 extracts a random value for mystery bonus from the numbers in a range of "0 to 99", and establishes the mystery bonus trigger when the extracted random value is "0".

[0851] The main CPU 71 conducts effect contents determination processing (step S16). The main CPU 71 extracts a random value for effect, and determines any of the effect contents from the preset plurality of effect contents by lottery. [0852] The main CPU 71 then conducts symbol display control processing which is described later with reference to FIG. 12 (step S17). In the processing, scrolling of the symbol array of each video reel 3 is started, and the to-be stopped symbol determined in the symbol lottery processing of step S14 is stopped at a predetermined position (e.g. the upper region in the symbol display region 4). That is, four symbols including the to-be stopped symbol are displayed in the symbol display region 4. For example, when the to-be stopped symbol is the symbol associated with the code number of "10" and it is to be displayed to the upper region, the symbols associated with the respective code numbers of "11", "12" and "13" are to be displayed to the respective upper central region, lower central region and lower region in the symbol display region 4.

[0853] Next, the main CPU 71 conducts amount-of-payout determination processing which is described later with reference to FIG. 13 (step S18). In the processing, the amount of payout is determined based on the combination of symbols displayed along the winning line, and is stored into an amount-of-payout storage area provided in the RAM 73.

[0854] The main CPU 71 then determines whether or not the bonus game trigger has been established (step S19). When the main CPU 71 determines that the bonus game trigger has been established, the main CPU 71 conducts bonus game processing which is described later with reference to FIG. 14 (step S20).

[0855] After the processing of step S20 or when determining in step S19 that the bonus game trigger has not been established, the main CPU 71 determines whether or not the mystery bonus trigger is established (step S21). When determines we have the contraction of the mystery bonus trigger is established (step S21).

mining that the mystery bonus trigger has been established, the main CPU **71** conducts the mystery bonus processing (step S**22**). In the processing, the amount of payout (e.g. 300) being set for the mystery bonus is stored into the amount-of-payout storage area provided in the RAM **73**.

[0856] After the processing of step S22, the main CPU 71 conducts payout processing (step S23). The main CPU 71 adds the value stored in the amount-of-payout storage area to a value stored in an amount-of-credit storage area provided in the RAM 73. It is to be noted that operations of the hopper 113 may be controlled based on input from the CASHOUT switch 33S, and coins of the number corresponding to the value stored in the amount-of-payout storage area may be discharged from the coin payout exit 15A. Further, operations of the ticket printer 171 may be controlled and a ticket with a barcode may be issued on which a value stored in the amount-of-payout storage area is recorded. After the processing has been conducted, the processing is shifted to step S12.

## <Coin-insertion/Start-Check Processing>

[0857] Next, with reference to FIG. 10, coin-insertion/start-check processing is described.

[0858] FIG. 10 is a view illustrating a flowchart of the coin-insertion/start-check processing for the gaming machine according to the embodiment of the present invention

[0859] First, the main CPU 71 determines whether or not insertion of a coin has been detected by the coin counter 92C (step S41). When determining that the insertion of a coin has been detected by the coin counter 92C, the main CPU 71 makes an addition to the value stored in the amount-of-credit storage area (step S42). It is to be noted that, in addition to the insertion of a coin, the main CPU 71 may determine whether or not insertion of a bill has been detected by the bill validator 115, and when determining that the insertion of a bill has been detected, the main CPU 71 may add a value according to the bill to the value stored in the amount-of-credit storage area.

[0860] After step S42 or when determining in step S41 that the insertion of a coin has not been detected, the main CPU 71 determines whether or not the value stored in the amount-of-credit storage area is zero (step S43). When the main CPU 71 determines that the value stored in the amount-of-credit storage area is not zero, the main CPU 71 permits operation acceptance of the bet buttons (step S44).

[0861] Next, the main CPU 71 determines whether or not operation of any of the bet buttons has been detected (step S45). When the main CPU 71 determines that the bet switch has detected press of the bet button by the player, the main CPU 71 makes an addition to a value stored in a bet amount storage area provided in the RAM 73 and makes a subtraction from the value stored in the amount-of-credit storage area, based on the type of the bet button (step S46). For example, when a bet of 100 dollars has been detected, the main CPU 71 adds 100 to the value stored in the bet amount storage area and subtracts 100 from the value stored in the amount-of-credit storage area.

[0862] The main CPU 71 then determines whether or not the value stored in the bet amount storage area is at its maximum (step S47). When the main CPU 71 determines that the value stored in the bet amount storage area is at its maximum, the main CPU 71 prohibits updating of the value stored in the bet amount storage area (step S48). After step S48 or when determining instep S47 that the value stored in the bet amount

storage area is not at its maximum, the main CPU 71 permits operation acceptance of the spin button (step S49).

[0863] After step S49 or when determining in step S45 that the operation of any of the bet buttons has not been detected, or when determining in step S43 that the value stored in the amount-of-credit storage area is zero, the main CPU 71 determines whether or not operation of the spin button has been detected (step S50). When the main CPU 71 determines that the operation of the spin button has not been detected, the processing is shifted to step S41.

[0864] When determining that the operation of the spin button has been detected, the main CPU 71 conducts bet amount information transmission processing (step S51). In the processing, the value stored it the bet amount storage area (bet amount information) is transmitted to the external control device 200.

[0865] After the processing has been conducted, the coin-insertion/start-check processing is completed.

<Symbol Lottery Processing>

[0866] Next, with reference to FIG. 11, the symbol lottery processing is described.

[0867] FIG. 11 is a view illustrating a flowchart of the symbol lottery processing for the gaming machine according to the embodiment of the present invention.

[0868] First, the main CPU 71 extracts random values for symbol determination (step S111). The main CPU 71 then determines to-be stopped symbols for the respective video reels 3 by lottery (step S112). The main CPU 71 holds a lottery for each video reel 3, and determines any one of the 22 symbols (code numbers from "00" to "21") as a to-be stopped symbol. At this time, each of the 22 symbols (code numbers from "00" to "21") is determined at an equal probability (i.e.  $\frac{1}{2}$ )

[0869] The main CPU 71 then stores the determined to-be stopped symbols for the respective video reels 3 into a symbol storage area provided in the RAM 73 (step S113). Next, the main CPU references the symbol combination table (FIG. 7) and determines a winning combination based on the symbol storage area (step S114). The main CPU 71 determines whether or not the combination of symbols to be displayed along the winning line by the respective video reels 3 matches any of the combinations of symbols specified by the symbol combination table, and determines the winning combination. After the processing has been conducted, the symbol lottery processing is completed.

<Symbol Display Control Processing>

[0870] Next, with reference to FIG. 12, the symbol display control processing is described.

[0871] FIG. 12 is a view illustrating a flowchart of the symbol display control processing for the gaming machine according to the embodiment of the present invention.

[0872] First, the main CPU 71 starts scrolling of the symbol arrays of the respective video reels 3 that are displayed to the symbol display region 4 of the lower image display panel 141 (step S131). The main CPU 71 then stops the scrolling of the symbol arrays of the respective video reels 3, based on the aforementioned symbol storage area (step S132). After the processing has been conducted, the symbol display control processing is completed.

<Amount-of-Payout Determination Processing>

[0873] Next, with reference to FIG. 13, the amount-of-payout determination processing is described.

[0874] FIG. 13 is a view illustrating a flowchart of the amount-of-payout determination processing for the gaming machine according to the embodiment of the present invention.

[0875] First, the main CPU 71 determines the amount of payout corresponding to the winning combination (step S152). For example, when the winning combination is "BELL", the main CPU 71 determines "8" as the amount of payout (see FIG. 7). It is to be noted that the main CPU 71 determines "0" as the amount of payout in the case where the game is lost. Next, the main CPU 71 stores the determined amount of payout into the amount-of-payout storage area (step S153). After the processing has been conducted, the amount-of-payout determination processing is completed.

#### <Bonus Game Processing>

[0876] Next, with reference to FIG. 14, the bonus game processing is described.

[0877] FIG. 14 is a view illustrating a flowchart of the bonus game processing for the gaming machine according to the embodiment of the present invention.

[0878] The main CPU 71 first determines the number of bonus games (step S191). The main CPU 71 extracts a random value for number-of-bonus-games determination, and determines any one of the various numbers of bonus games such as "50", "70" and "100" by lottery.

[0879] Next, the main CPU 71 stores the determined number of bonus games into a number-of-bonus-games storage area provided in the RAM 73 (step S192).

[0880] The main CPU 71 then conducts at-one-game-end initialization processing in the same way as the processing of step S12 described with reference to FIG. 9 (step S193). The main CPU 71 then conducts the symbol lottery processing described with reference to FIG. 11 (step S194). Then, the main CPU 71 conducts the effect contents determination processing in the same way as the processing of step S16 described with reference to FIG. 9 (step S195). Next, the main CPU 71 conducts the symbol display control processing described with reference to FIG. 12 (step S196). The main CPU 71 then conducts the amount-of-payout determination processing described with reference to FIG. 13 (step S197).

[0881] Next, the main CPU 71 determines whether or not the bonus game trigger has been established (step S198). When the main CPU 71 determines that the bonus game trigger has been established, the main CPU 71 determines the number of bonus games to be added (step S199). In the same way as the aforementioned processing of step S191, the main CPU 71 determines the number of bonus games. The main CPU 71 then adds the determined number of bonus games to the value stored in the number-of-bonus-games storage area (step S200).

[0882] After the processing of step S200 or when determining in step S198 that the bonus game trigger has not been established, the main CPU 71 conducts the payout processing (step S201). In the payout processing, the main CPU 71 adds the value stored into the amount-of-payout storage area in the aforementioned amount-of-payout determination processing of step S197 to a value stored in an amount-of-payout storage area for bonus. The amount-of-payout storage area for bonus is an area for storing a total of the amounts of payout determined during the bonus games.

[0883] When the bonus game processing has been completed, the main CPU 71 adds the value stored in the amount-of-payout storage area for bonus to the value stored in the

amount-of-credit storage area provided in the RAM 73, in the payout processing of step S23 described with reference to FIG. 8. That is, the total of the amounts of payout determined during the bonus games is collectively paid out. Here, it is to be noted that coins may be discharged from the coin payout exit 15A, or a ticket with a barcode may be issued.

[0884] Next, the main CPU 71 subtracts one from the value stored in the number-of-bonus-games storage area (step S202). Next, the main CPU 71 determines whether or not the value stored in the number-of-bonus-games storage area is zero (step S203). When the main CPU 71 determines that the value stored in the number-of-bonus-games storage area is not zero, the main CPU 71 shifts the processing to step S193. On the other hand, when the main CPU 71 determines that the value stored in the number-of-bonus-games storage area is zero, the main CPU 71 completes the bonus game processing. When the bonus game processing has been completed, the processing is shifted to the processing of step S21 described with reference to FIG. 9.

<Slot Game: Normal Game Screen>

[0885] Next, a slot game image displayed on the lower image display panel 141 is described with reference to FIGS. 15 to 17.

[0886] FIGS. 15 to 17 are views each illustrating an example of the slot game image displayed on the lower image display panel 141.

[0887] FIG. 15 illustrates a state where a normal game image is displayed on the lower image display panel 141.

[0888] More specifically, a normal game screen is positioned at the center of the lower image display panel 141 and has a display window 150 including five dummy reels 151 to 155 and payline generating portions 65L and 65R positioned symmetrically on both sides of the display window 150. In the normal game screen of FIG. 15, the first to third dummy reels 151, 152, and 153 are not scrolled, while the fourth and fifth dummy reels 154 and 155 are scrolled.

[0889] Above the display window 150, an amount-of-credit display portion 400, a bet amount display portion 401, a number-of-wild-symbols display portion 415, a number-of-trigger-symbols display portion 416, and a payout display portion 402 are arranged. These portions 400, 401, 415, 416, and 402 are sequentially positioned from the left end to the right end as viewed from the player.

[0890] The amount-of-credit display portion 400 displays the amount of credit. The bet amount display portion 401 displays the bet amount in the current unit game. The number-of-wild-symbols display portion 415 displays the number of wild symbols 503a in the current unit game. This preliminary notifies the player of the presence of five wild symbols 503a in the normal game. The number-of-trigger-symbols 503b in the current unit game. This preliminary notifies the player of the presence of five trigger symbols 503b in the normal game. The payout display portion 402 displays the number of coins to be paid out when a winning combination is formed.

[0891] On the other hand, below the display window 150, a help button 410, a pay table button 411, a bet unit display portion 412, a stock display portion 413, a number-of-freegames display portion 414 are arranged. These portions 410, 411, 412, 413, and 414 are sequentially positioned from the left end to the right end as viewed from the player.

[0892] The help button 410 enables execution of a help mode when pressed by the player. The help mode refers to a

mode where information to solve questions related to the game is provided to the player. The pay table button **411** enables execution of a payout display mode for displaying detail of the payout when pressed by the player. The payout display mode refers to a mode where an information screen indicative of a relation between the winning combination and the payout odds is displayed to the player.

[0893] The bet unit display portion 412 displays a bet unit

(payout unit) at present. This display in the bet unit display portion 412 allows the player to recognize that he or she can participate in the game by placing a bet in cents, for example. [0894] The stock display portion 413 displays a continuation number of the bonus game. Here, "the continuation number" refers to the remaining number of bonus games that the player can play in succession after the current bonus game ends. Namely, when "3" is displayed in the stock display

portion 413, the player can play the bonus game for three consecutive times after the current bonus game ends. It is to be noted that "0" is displayed in the normal game.

[0895] The number-of-free-games display portion 414 displays the number of repeated bonus games and the total number of bonus games. Here, "0 of 0" displayed in the number-of-free-games display portion 414 indicates that the total number of free games is zero. Namely, the bonus game is not executed. Further, "5 cf 8" displayed in the number-of-free-games display portion 414 indicates that the 5<sup>th</sup> free game is executed now in eight free games as the bonus game. [0896] Between the bet unit display portion 412 and the stock display portion 413, an accumulation level display portion 421 and a timeout display portion 422 are arranged. The accumulation level display portion 421 is configured to display the accumulated value increased in each unit game of the slot game as a base game, in an analog fashion.

[0897] More specifically, the accumulation level display portion 421 has a circular shape as illustrated in FIG. 15 and is divided at angles of every 60 degrees into six accumulation display areas. It is to be noted that the shape is not limited to a circular shape, and it may be a polygonal shape or a shape of a character figure such as animals and gaming machines. The division is also not particularly limited to six-fold division, provided that it is divided into plural areas. The accumulation value ranges from zero as an initial value in an empty state to a participation-allowing value in a full state indicating that the participation in the common game is allowed. The range is divided by the number of divisions and each divided range is associated with an accumulation display area.

[0898] Display states of each accumulation display area can be individually changed in colors, luminance, and the like. The different display states of the accumulation display areas allow the player to identify whether or not the accumulation value has reached the range corresponding to that accumulation display area. Accordingly, when it is in the empty state, for example, all accumulation display areas are displayed in the display state indicating that the accumulation value is not in that divided range. Along with the increase in the accumulation value according to repetitive executions of the slot game, the display states of the accumulation display areas are sequentially changed when the accumulation value falls within the range corresponding thereto. Finally, when the accumulation value is increased to the participation-allowing value in the full state, the display states of all the accumulation display areas are switched to different states. This configuration of the accumulation level display portion 421 allows the player to be aware that the condition for participating in the common game is going to be satisfied, and therefore, it is possible to have the player always interested in the common game.

[0899] Once the accumulation level display portion 421 indicates the accumulation value in the full state, the display is reset irrespective of the participation in the common game, on condition that the common game starts. Namely, the accumulation value may be cleared. On the other hand, in a case where the common game starts before the accumulation value becomes in the full state, though the participation in the common game is not allowed, the display state may be carried over to the next common game. Namely, the accumulation value is not cleared and may be set as the initial value in the next base game after the current common game ends.

[0900] The timeout display portion 422 is configured to visually display the time left before timeout in an analog fashion. Here, "the time left before timeout" refers to the remaining time before the participation in the common game is rejected since a start operation has not been made by the player.

#### <Bonus-Winning Screen in Normal Game>

[0901] FIG. 16 illustrates a state displayed for a certain period after the player wins the bonus. More specifically, it illustrates a state where three trigger symbols 503b are rearranged so that the player wins the bonus. The trigger symbol 503b preferably includes legible characters of "FEATURE" so that the player easily recognizes that the symbol is related to winning of the bonus.

[0902] On the present screen, a bonus-winning image 420 notifying the winning of the bonus with use of the symbol image and the character image of "FEATURE IN" is displayed by pop up. Then, concurrently with or right after the display of the bonus-winning image 420, the total number displayed in the number-of-free-games display portion 414 is changed from "0" to "7". Accordingly, the player can recognize that he or she wins the bonus and the game is shifted to the bonus game including the seven free games.

<Slot Game: Bonus Game Screen>

[0903] FIG. 17 illustrates a state where a bonus game image is displayed on the lower image display panel 141.

[0904] More specifically, concurrently with display of the total number of the free games in the number-of-free-games display portion 414, the number of the present game is displayed. For example, an image indicating that the first game of the seven free games is now executed is displayed. Other operations are the same as those in the normal game.

[0905] Descriptions have been given on the slot game images displayed on the lower image display panel 141 with reference to FIGS. 15 to 17.

<Bet Amount Information Reception Processing>

[0906] Next, a description is given on bet amount information reception processing executed by the external control device according to the first embodiment of the present invention, with reference to FIG. 18.

[0907] FIG. 18 illustrates a flowchart of bet amount information reception processing executed by the external control device 200.

[0908] The main CPU 241 determines whether or not it has received bet amount information (step S251). The bet amount information is transmitted from the gaming machine 1 (see

step S51 of FIG. 10). When determining that it has not received the bet amount information from the gaming machine 1, the main CPU 241 ends the present subroutine. On the other hand, when determining that it has received the bet amount information from the gaming machine 1, the main CPU 241 executes bet-related amount update processing (step S252). The bet-related amount update processing is later described with reference to FIG. 19.

[0909] Next, the main CPU 241 determines whether or not the individual bet amount storage area provided in the RAM 243 has reached the event triggering amount (step S253). When determining that the individual bet amount storage area has not reached the event triggering amount, the main CPU 241 ends the present subroutine. On the other hand, when determining that the individual bet amount stored in the individual bet amount storage area has reached the event triggering amount, the main CPU 241 shifts the processing to step S254.

[0910] Here, a state where "the individual bet amount stored in the individual bet amount storage area has reached the event triggering amount" (see step S253 of FIG. 18) refers to the predetermined condition of the present invention.

[0911] In step S254, the main CPU 241 extracts a random value for determining the shooter gaming machine.

[0912] Next, the main CPU 241 determines one gaming machine out of all the gaming machines 1 based on the random value for determining the shooter gaming machine extracted in step S254 (step S255).

[0913] Then, the main CPU 241 determines whether or not the individual bet amount corresponding to the one gaming machine determined in step S255 is equal to or more than the setting amount for participation (1000) (step S256).

[0914] When determining that the individual bet amount corresponding to the one gaming machine determined in step S255 is less than the setting amount for participation (1000), the main CPU 241 shifts the processing to step S254. On the other hand, when determining that the individual bet amount corresponding to the one gaming machine determined in step S255 is equal to or more than the setting amount for participation (1000), the main CPU 241 shifts the processing to step S257

[0915] In step S257, the main CPU 241 transmits a shooter appointment signal to the gaming machine corresponding to the individual bet amount determined that it is equal to or more than the set for entry (1000) in step S256.

[0916] Herein after, the gaming machine 1 receiving the shooter appointment signal is also referred to as a shooter gaming machine.

[0917] Next, the main CPU 241 transmits a craps-game occurrence signal to the gaming machines other than the shooter gaming machine (step S258).

[0918] Next, the main CPU 241 executes participation determination processing (step S259). The participation determination processing is later described with reference to FIG. 21.

[0919] Then, the main CPU 241 executes craps game execution processing (step S260). The craps game execution processing is later described with reference to FIG. 22.

[0920] The main CPU 241 then executes total Hidden amount display processing (step S261). The total Hidden amount display processing is later described with reference to FIG. 26.

[0921] After the processing of step S261, the main CPU 241 ends the present subroutine.

[0922] As above, the bet amount information reception processing executed by the external control device 200 has been described with reference to FIG. 18.

<Bet-Related Amount Update Processing>

[0923] Now, with reference to FIGS. 19 and 20, the betrelated amount update processing (see step S252 of FIG. 18) executed by the external control device 200 according to the first embodiment of the present invention is described.

[0924] FIG. 19 is a view illustrating a flowchart of betrelated amount update processing executed by the external control device 200.

[0925] FIG. 20 is a view for explaining the bet-related amount.

[0926] The bet-related amount is updated based on the bet amount information transmitted from the gaming machine 1 in step S51 described with reference to FIG. 10. Here, the bet-related amount includes the individual bet amount, the total prize amount, the total bonus amount, and the total Hidden amount. The total bonus amount refers to an amount in which a part of the bet amount betted to the slot game is accumulated and used for calculating a special bet amount for shooter. The special bet amount for shooter is later described with reference to step S344 of FIG. 23.

[0927] The total prize amount is the amount of resource of the prizes in the craps game.

[0928] The main CPU 241 updates the individual bet amount in the gaming machine 1 as a transmission source of the bet amount information (step S271).

[0929] In the present embodiment, the amount corresponding to 100% of the bet amount indicated by the bet amount information is added to the individual bet amount indicated by the individual bet amount information stored in the individual bet amount storage area provided in the RAM 243 to update the individual bet amount.

[0930] In the case where the bet amount information indicative of the bet amount being 1000 is transmitted from the gaming machine 1 allocated with the terminal number 001 and having the individual bet amount of 79000, for example, the individual bet amount of that gaming machine 1 is updated to 80000 (see FIG. 20).

[0931] The individual bet amount information indicative of the updated individual bet amount is transmitted to the gaming machine 1 corresponding to that individual bet amount.

[0932] Next, the main CPU 241 updates the total bonus amount based on the bet amount information (step S272).

[0933] In the present embodiment, the amount corresponding to 4% of the bet amount indicated by the bet amount information is added to the total bonus amount indicated by the total bonus amount data stored in the total bonus amount storage area provided in the RAM 243 to update the total bonus amount.

[0934] In the case where the bet amount information indicative of the bet amount being 1000 is transmitted from any of the gaming machines 1 when the total bonus amount is 13560, for example, the total bonus amount is updated to 13600 (see FIG. 20).

[0935] Here, the total bonus amount is the value used for calculating the special bet amount for shooter which is specially set only for the shooter gaming machine in the craps game. The special bet amount for shooter is later described with reference to FIGS. 23 to 25.

[0936] After the processing of step S272, the main CPU 241 executes processing of adding the amount corresponding to 14% of the bet amount indicated by the bet amount information to the total prize amount indicated by the total prize amount data stored in the total prize amount storage area (step S273).

[0937] In the case where the bet amount information indicative of the bet amount being 1000 is transmitted from any of the gaming machines 1 when the total bonus amount is 47460, for example, the total bonus amount is updated to 47600 (see FIG. 20).

[0938] Next, the main CPU 241 transmits total prize amount information including the total prize amount data updated in step S273 to the gaming machine 1 (step S274). On receiving the total prize amount information from the external control device 200, the main CPU 71 in the gaming machine 1 executes processing of displaying the total prize amount indicated by the total prize amount data included in that total prize amount information, on the middle image display panel 650 (not illustrated). The total prize amount is displayed on the middle image display panel 650 in the gaming machine 1 in this processing (see FIG. 1A).

[0939] When the total prize amount indicated by the total prize amount data is 47600, for example, the value of 47600 is displayed on the middle image display panel 650 (see FIG. 1A).

[0940] Then, the main CPU 241 executes processing of adding the amount corresponding to 2% of the bet amount indicated by the bet amount information to the total Hidden amount indicated by the total Hidden amount data stored in the total Hidden amount storage area provided in the RAM 243 (step S275).

[0941] In the case where the bet amount information indicative of the bet amount being 1000 is transmitted from any of the gaming machines 1 when the total Hidden amount is 21980, for example, the total Hidden amount is updated to 22000 (see FIG. 20).

[0942] After the processing of step S275, the main CPU 241 ends the present subroutine.

[0943] As above, descriptions have been given on the betrelated amount update processing executed by the external control device 200 with reference to FIGS. 19 and 20.

# <Participation Determination Processing>

[0944] Now, descriptions are given on the participation determination processing (see step S259 of FIG. 18) executed by the external control device 200 according to the first embodiment of the present invention.

[0945] FIG. 21 is a view illustrating a flowchart of participation determination processing executed by the external control device 200.

[0946] In the participation determination processing, the gaming machine allowed to participate in the craps game is determined

[0947] The main CPU 241 determines whether or not the individual bet amount of each gaming machine other than the shooter gaming machine has reached the setting amount for participation (step S291). When determining that the individual bet amount is equal to or more than the setting amount for participation, the main CPU 241 transmits a non-shooter appointment signal to the gaming machine 1 corresponding to that individual bet amount (step S292). On the other hand, when determining that the individual bet amount is less than the setting amount for participation, the main CPU 241 trans-

mits a non-participant appointment signal to the gaming machine 1 corresponding to that individual bet amount (step S293).

[0948] After the processing of step S292 or step S293, the main CPU 241 ends the present subroutine.

[0949] As above, descriptions have been given on the participation determination processing executed by the external control device 200 with reference to FIG. 21.

## <Craps Game Execution Processing>

[0950] Now, descriptions are given on the craps game execution processing (see step S260 of FIG. 18) executed by the external control device 200 according to the first embodiment of the present invention with reference to FIGS. 22A and 22B.

[0951] FIGS. 22A and 22B are views each illustrating a flowchart of craps game execution processing executed by the external control device 200.

[0952] The main CPU 241 executes auto-bet amount determination processing (step S301). In this processing, the auto bet amount is determined with respect to each of the participating gaming machines. The auto-bet amount determination processing is later described with reference to FIGS. 23 to 25.

[0953] After the processing of step S301, the main CPU 241 executes processing of transmitting the auto bet amount information indicative of the auto bet amount determined in step S301 to the gaming machine 1 corresponding to that auto bet amount information (step S302).

[0954] Next, the main CPU 241 executes the processing of setting the number R of rolls indicated by number-of-rolls data stored in a number-of-rolls storage area provided in the RAM 243 to 1 (step S303).

[0955] Next, the main CPU 241 determines whether or not it has received a roll command signal (step S304). The roll command signal is a signal transmitted from the shooter gaming machine (see step S527 of FIG. 28). The roll command signal is later described with reference to step S527 of FIG. 28. When determining that it has not received the roll command signal from the shooter gaming machine, the main CPU 241 returns the processing to step S304. On the other hand, when determining that it has received the roll command signal from the shooter gaming machine, the main CPU 241 shifts the processing to step S305.

[0956] In step S305, the main CPU 241 extracts a random value for the craps game.

[0957] Next, the main CPU 241 determines two values in the value range of 1 to 6, based on the random value extracted in step S305 (step S306). In this processing, two values to be determined may be 1 and 1. Namely, the two values to be determined may be the same value.

[0958] Hereinafter, the total of the two values determined in this processing is also referred to as the outcome of the dice roll.

[0959] Next, the main CPU 241 determines whether or not the number R of roll indicated by the number-of-roll data stored in the number-of-roll storage area provided in the RAM 243 is 1 (step S307). When determining that the number of roll is not 1, the main CPU 241 shifts the processing to step S327. On the other hand, when determining that the number of roll is 1, the main CPU 241 shifts the processing to step S308.

[0960] In step S308, the main CPU 241 determines whether or not the outcome of dice roll determined in step S306 is 7 or 11. When determining that the outcome of the dice roll determines that the outcome of the dice roll determining that the outcome of the dice roll determining that the outcome of the dice roll determining that the outcome of the dice roll determines the dice roll determines

mined in step S306 is not 7 or 11, the main CPU 241 shifts the processing to step S321. On the other hand, when determining that the outcome of the dice roll determined in step S306 is 7 or 11, the main CPU 241 shifts the processing to step S309.

[0961] In step S309, the main CPU 241 transmits a winning signal to the gaming machine participating in the craps game (hereinafter, also referred to as participating gaming machine).

[0962] Next, the main CPU 241 determines whether or not the total prize amount is equal to or more than the total amount of the auto bet amounts in participating gaming machines (step S310). When determining that the total prize amount is less than the total amount of the auto bet amounts, the main CPU 241 shifts the processing to step S315. On the other hand, when determining that the total prize amount is equal to or more than the total amount of the auto bet amounts, the main CPU 241 shifts the processing to step S311.

[0963] In step S311, the main CPU 241 determines the auto bet amount for shooter as an amount of payout for shooter. The amount of payout for shooter is the amount to be paid out to the shooter gaming machine in the case of the shooter's winning. For example, when the auto bet amount for shooter is 50000, the main CPU 241 determines the amount of payout for shooter to be 50000 (see FIGS. 1I and 1J).

[0964] Next, the main CPU 241 determines each bet amount for non shooter as the amount of payout to the gaming machine corresponding to that bet amount for non shooter (step S312). Hereinafter, the amount of payout determined in this processing is referred to as an amount of payout for non shooter. The amount of payout for non shooter is the amount to be paid out to the non-shooter gaming machine in the case of the shooter's winning. For example, when the auto bet amount for non shooter is 8000, the main CPU 241 determines the amount of payout for non shooter to be 8000 (see FIGS. 1I and 1J).

[0965] Next, the main CPU 241 transmits amount-of-payout information indicative of the amount of payout for shooter to the shooter gaming machine and amount-of-payout information indicative of the amount of payout for non shooter to the non-shooter gaming machines (step S313).

[0966] Then, the main CPU 241 subtracts the total amount of the auto bet amounts in all participating gaming machines from the total prize amount (step S314).

[0967] After the processing of step S314, the main CPU 241 shifts the processing to step S303.

[0968] When determining in step S308 that the outcome of the dice roll determined in step S306 is not 7 or 11, the main CPU 241 determines whether or not the outcome of the dice roll determined in step S306 is any of 2, 3, and 12 (step S321). When determining that the outcome of the dice roll determined in step S306 is one of 2, 3, and 12, the main CPU 241 shifts the processing to step S322. On the other hand, when determining that the outcome of the dice roll determined in step S306 is not any of 2, 3, and 12, the main CPU 241 shifts the processing to step S324.

[0969] In step S324, the main CPU 241 determines the outcome of the dice roll (total of the two values determined in the processing of step S306) as a value of points.

[0970] Then, the main CPU 241 transmits a draw signal to the participating gaming machine (step S325).

[0971] Next, the main CPU 241 executes processing of adding 1 to the number R of rolls indicated by the number-

of-rolls data stored in the number-of-rolls storage area provided in the RAM 243 (step S326).

[0972] After the processing of step S326, the main CPU 241 shifts the processing to step S304.

[0973] When determining in step S321 that the outcome of the dice roll determined in step S306 is one of 2, 3, and 12, the main CPU 241 transmits a loss signal to the participating gaming machine (step S322).

[0974] After the processing of step S322, the main CPU 241 determines the total prize amount indicated by the total prize amount data stored in the total prize amount storage area provided in the RAM 243 as a new total bonus amount (step S323).

[0975] After the processing of step S323, the main CPU 241 shifts the processing to step S320.

[0976] When determining in step S310 that the total prize amount is Less than the total amount of the auto bet amounts, the main CPU 241 determines the total prize amount indicated by the total prize amount data stored in the total prize amount storage area provided in the RAM 243 as the amount of payout for shooter (step S315).

[0977] After the processing of step S315, the main CPU 241 determines the amount of payout for non shooter to be zero (step S315).

[0978] Next, the main CPU 241 executes the processing of transmitting amount-of-payout information indicative of the amount of payout for shooter to the shooter gaming machine and amount-of-payout information indicative of the amount of payout for non shooter to the non-shooter gaming machines (step S317).

[0979] Next, the main CPU 241 sets the total prize amount indicated by the total prize amount data stored in the total prize amount storage area provided in the RAM 243 to zero (step S318).

[0980] Then, the main CPU 241 sets the total bonus amount indicated by the total bonus amount data stored in the total bonus amount storage area provided in the RAM 243 to zero (step S319).

[0981] After the processing of step S319 or step S323, the main CPU 241 sets the individual auto bet amount indicated by the individual bet amount data stored in the individual bet amount storage area provided in the RAM 243 to zero (step S320).

[0982] In addition, the main CPU 241 sets the auto bet amount indicated by the auto bet amount data stored in the auto bet amount data storage area provided in the RAM 243 to zero.

[0983] After the processing of step S320, the main CPU 241 ends the present subroutine.

[0984] When determining in step S307 that the number R of rolls is not 1, the main CPU 241 shifts the processing to step S327.

[0985] In step S327, the main CPU 241 determines whether or not the outcome of the dice roll is the same value as the value of the points determined in step S324. When determining that the outcome of the dice roll is the same value as the value of the points, the main CPU 241 shifts the processing to step S309. On the other hand, when determining that the outcome of the dice roll is not the same value as the value of the points, the main CPU 241 shifts the processing to step S328.

[0986] In step S328, the main CPU 241 determines whether or not the outcome of the dice roll is 7. When determining that the outcome of the dice roll is 7, the main CPU 241 shifts the

processing to step S322. On the other hand, when determining that the outcome of the dice roll is not 7, the main CPU 241 shifts the processing to step S325.

[0987] As above, descriptions have been given on the craps game execution processing executed by the external control device 200 with reference to FIGS. 22A and 22B.

## < Auto-Bet Amount Determination Processing>

[0988] Now, descriptions are given on the auto-bet amount determination processing (see step S301 of FIG. 22) executed by the external control device 200 according to the first embodiment of the present invention.

[0989] FIG. 23 is a view illustrating a flowchart of the auto-bet amount determination processing executed by the external control device 200.

[0990] The main CPU 241 calculates a basic bet amount for each gaming machine (step S341). In the present embodiment, the basic bet amount refers to the auto bet amount to be set for all participating gaming machines. In the present embodiment, an amount corresponding to 10% of the individual bet amount is determined as the basic bet amount (see FIGS. 24 and 25).

[0991] Next, the main CPU 241 determines the basic bet amount in each non-shooter gaming machine as the auto bet amount in that non-shooter gaming machine (auto bet amount for non shooter) (step S342).

[0992] In this processing, data indicative of the basic bet amount is stored into the auto bet amount storage area provided in the RAM 243 in association with the corresponding non-shooter gaming machine.

[0993] FIG. 25 is a view for supplementary explaining the auto-bet amount determination processing.

[0994] A case is described where the gaming machines allocated with the terminal number 001, 003, 004, and 005 are non-shooter gaming machines in FIG. 25. In this case, the auto bet amounts are 8000 for the gaming machine of the terminal number 001, 6000 for the gaming machine of the terminal number 003, 6000 for the gaming machine of the terminal number 004, and 4000 for the gaming machine of the terminal number 005.

[0995] After the processing of step S342, the main CPU 241 calculates the degree of contribution of the shooter gaming machine (step S343). In the present embodiment, the degree of the contribution is obtained by multiplying the individual bet amount corresponding to the shooter gaming machine by the reciprocal of the maximum individual bet amount among the individual bet amounts of all gaming machines.

[0996] For example, the degree of contribution of the gaming machine corresponding to the maximum individual bet amount among the individual bet amounts of all gaming machines is 100% (see FIGS. 24 and 25).

[0997] After the processing of step S342, the main CPU 241 calculates the special bet amount for shooter based on the degree of contribution calculated in step S343 (step S344). In the present embodiment, the special bet amount for shooter is calculated by multiplying the total bonus amount indicated by the total bonus amount data stored in the total bonus amount storage area by the degree of contribution calculated in step S343. The special bet amount for shooter refers to the bet amount specially set only for the shooter.

[0998] Next, the main CPU 241 determines the total amount of the basic bet amount of the shooter gaming machine and the special bet amount for shooter calculated in

step S343, as the auto bet amount of the shooter gaming machine (auto bet amount for shooter) (step S345).

[0999] In this processing, data indicative of the total amount of the basic bet amount of the shooter gaming machine and the special bet amount for shooter is stored into an auto bet amount storage area provided in the RAM 243, in association with the shooter gaming machine.

[1000] For example, a case is described where the gaming machine allocated with the terminal number 002 in FIG. 25 is the shooter gaming machine. In this case, the auto bet amount for shooter is 50000 that is the total amount of 10000 of the basic bet amount and 40000 of the special bet amount for shooter.

[1001] After the processing of step S345, the main CPU 241 ends the present subroutine.

[1002] As above, descriptions have been given on the auto bet amount determination processing executed by the external control device 200.

## <Total Hidden Amount Display Processing>

[1003] Now, descriptions are given on the total Hidden amount display processing (see step S261 of FIG. 18) executed by the external control device 200 according to the first embodiment of the present invention.

[1004] FIG. 26 is a view illustrating a flowchart of the total Hidden amount display processing executed by the external control device 200.

[1005] The main CPU 241 determines whether or not the total prize amount stored in the total prize amount storage area provided in the RAM 243 is equal to or less than the predetermined amount (step S371). When determining that the total prize amount stored in the total prize amount storage area is more than the predetermined amount, the main CPU 241 ends the present subroutine. On the other hand, when determining that the total prize amount stored in the total prize amount storage area is equal to or less than the predetermined amount, the main CPU 241 shifts the processing to step S372.

[1006] In step S372, the main CPU 241 determines the sum of the total Hidden amount indicated by the total Hidden amount data stored in the total Hidden amount storage area provided in the RAM 243 and the total prize amount indicated by the total prize amount data stored in the total prize amount storage area provided in the RAM 243 as a new total prize amount and updates the total prize amount data.

[1007] Next, the main CPU 241 transmits total prize amount information including the total prize amount data updated in step S372 to the gaming machine 1 (step S373). On receiving the total prize amount information from the external control device 200, the main CPU 71 in the gaming machine 1 executes processing of displaying the total prize amount indicated by the total prize amount data included in that total prize amount information, on the middle image display panel 650 (not illustrated). The total prize amount is displayed on the middle image display panel 650 in the gaming machine 1 in this processing (see FIG. 1A).

[1008] When the total prize amount indicated by the total prize amount data is 47600, for example, the value of 47600 is displayed on the middle image display panel 650 (see FIG. 1A).

[1009] Next, the main CPU 241 determines the total prize amount indicated by the total prize amount data stored in the

total prize amount storage area provided in the RAM 243 as a new total bonus amount and updates the total bonus amount data (step S374).

[1010] Next, the main CPU 241 sets the total Hidden amount indicated by the total Hidden amount data stored in the total Hidden amount storage area to zero (step S375).

[1011] As above, descriptions have been given on the total Hidden amount display processing executed by the external control device 200 with reference to FIG. 26.

<Shooter Appointment Signal Reception Processing>

[1012] Now descriptions are given on shooter appointment signal reception processing executed by the gaming machine 1 according to the first embodiment of the present invention with reference to FIG. 27.

[1013] FIG. 27 is a view illustrating a flowchart of shooter appointment signal reception processing executed by the gaming machine 1.

[1014] The main CPU 71 determines at a predetermined timing whether or not it has received a shooter appointment signal (step S501). The shooter appointment signal is a signal transmitted from the external control device 200 (see step S257 of FIG. 18). When determining that it has not received the shooter appointment signal from the external control device 200, the main CPU 71 ends the present subroutine. On the other hand, when determining that it has received the shooter appointment signal from the external control device 200, the main CPU 71 sets a shooter appointment flag and executes a craps game-related processing (step S502). The craps game-related processing is described later with reference to FIG. 28.

[1015] After the processing of step S502, the main CPU 71 ends the present subroutine.

[1016] As above, descriptions have been given on the shooter appointment signal reception processing executed by the gaming machine 1 with reference to FIG. 27.

# <Craps Game-Related Processing>

[1017] Now, descriptions are given on craps game-related processing (see step S502 of FIG. 27) executed by the gaming machine 1 according to the first embodiment of the present invention with reference to FIG. 28.

[1018] FIG. 28 is a view of craps game-related processing executed by the gaming machine 1.

[1019] The main CPU 71 displays a craps game start image on the middle image display panel 650 (step S521). In this processing, an image as illustrated in FIG. 1H is displayed on the middle image display panel 650.

[1020] Next, the main CPU 71 receives auto bet amount information from the external control device 200 (step S522). The auto bet amount information is included in a signal transmitted from the external control device 200 (see step S302 of FIG. 22).

[1021] Next, the main CPU 71 displays the auto bet amount indicated by the auto bet amount information received in step S522 on the middle image display panel 650 (step S523).

[1022] Then, the main CPU 71 determines whether or not a shooter appointment flag is set (step S524). The shooter appointment flag is a flag to be set when the main CPU 71 has determined that it had received the shooter appointment signal in step S501 of FIG. 27.

[1023] When determining that the shooter appointment flag is not set, the main CPU 71 shifts the processing to step S528.

On the other hand, when determining that the shooter appointment flag is set, the main CPU 71 shifts the processing to step S525.

[1024] In step S525, the main CPU 71 determines whether or not it has received a roll command input signal. When the player has touched a portion on the touch panel 114 corresponding to a roll request image 902 displayed on the lower image display panel 141, the touch panel 141 transmits a toll command input signal to the main CPU 71 (see FIG. 30A).

[1025] When determining that it has received the roll command input signal, the main CPU 71 shifts the processing to step S527. On the other hand, when determining that it has not received the roll command input signal, the main CPU 71 shifts the processing to step S526.

[1026] In step S526, the main CPU 71 determines whether or not a predetermined time has elapsed after executing the processing of step S524. When determining that the predetermined time has not elapsed yet, the main CPU 71 shifts the processing to step S525. On the other hand, when determining that the predetermined time has elapsed, the main CPU 71 shifts the processing to step S527.

[1027] In step S527, the main CPU 71 transmits a roll command signal to the external control device 200. The external control device 200 extracts a random value for craps game on receiving the roll command signal (see step S305 of FIG. 22A).

[1028] Next, the main CPU 71 determines whether or not it has received a winning signal from the external control device 200 (step S528). The winning signal is a signal to be transmitted from the external control device 200 when the external control device 200 determines that the shooter has won in the craps game (see step S309 of FIG. 22B).

[1029] When determining that it has not received the winning signal from the external control device 200, the main CPU 71 shifts the processing to step S533. On the other hand, when determining that it has received the winning signal from the external control device 200, the main CPU 71 displays a winning image on the middle image display panel 650 (step S529). The winning image is an image indicating that the shooter has won in the craps game.

[1030] After the processing of step S529, the main CPU 71 receives amount-of-payout information from the external control device 200 (step S530).

[1031] When the gaming machine including that main CPU 71 is a non-shooter gaming machine, the external control device 200 transmits amount-of-payout information indicative of the amount of payout for non shooter (step S313 of FIG. 22B).

[1032] When the gaming machine including that main CPU 71 is a shooter gaming machine, the external control device 200 transmits amount-of-payout information indicative of the amount of payout for shooter (step S313 of FIG. 22B).

[1033] Next, the main CPU 71 displays the amount of payout indicated by the amount-of-payout information received instep S530 on the middle image display panel 650 (step S531).

[1034] Then, the main CPU 71 adds the value of the amount of payout indicated by the amount-of-payout information received in step S530 to the value stored in the amount-of-credit storage area provided in the RAM 73 (step S532).

[1035] After the processing of step S532, the main CPU 71 shifts the processing to step S524.

[1036] In step S533, the main CPU 71 determines whether or not it has received a loss signal from the external control

device 20C. The loss signal is a signal to be transmitted from the external control device 200 when the external control device 20C determines that the shooter has lost (the dealer has won) in the craps game (see step S322 of FIG. 22B).

[1037] When determining that it has not received the loss signal from the external control device 200, the main CPU 71 shifts the processing to step S535. On the other hand, when determining that it has received the loss signal from the external control device 200, the main CPU 71 displays a loss image on the middle image display panel 640 (step S534). The loss image is an image indicating that the shooter has lost in the craps game.

[1038] After the processing of step S534, the main CPU 71 ends the present subroutine.

[1039] In step S535, the main CPU 71 determines whether or not it has received a draw signal from the external control device 20C. The draw signal is a signal to be transmitted from the external control device 200 when the external control device 20C determines that neither the shooter nor the dealer has won in the craps game (see step S325 of FIG. 22).

[1040] When determining that it has not received the draw signal from the external control device 200, the main PCU 71 shifts the processing to step S528. On the other hand, when determining that it has received the draw signal from the external control device 200, the main CPU 71 displays a draw image on the middle image display panel 650 (step S536). The draw image is an image indicating that the result of the craps game is a draw.

[1041] After the processing of step S536, the main CPU 71 shifts the processing to step S524.

[1042] As above, descriptions are given on the craps gamerelated processing executed by the gaming machine 1 with reference to FIG. 28.

<Craps-Game Occurrence Signal Reception Processing>

[1043] Now, descriptions have been given on craps-game occurrence signal reception processing executed by the gaming machine 1 according to the first embodiment of the present invention with reference to FIG. 29.

[1044] FIG. 29 is a view illustrating a flowchart of crapsgame occurrence signal reception processing executed by the gaming machine 1.

[1045] The main CPU 71 determines at a predetermined timing whether or not it has received a craps game occurrence signal from the external control device 200 (step S551). The craps game occurrence signal is a signal to be transmitted from the external control device 200 (see step S258 of FIG. 18). When determining that it has not received the craps occurrence signal from the external control device 200, the main CPU 71 ends the present subroutine. On the other hand, when determining that it has received the craps game occurrence signal from the external control device 200, the main CPU 71 shifts the processing to step S552.

[1046] In step S552, the main CPU 71 determines whether or not it has received a non-shooter appointment signal from the external control device 200. The non-shooter appointment signal is a signal transmitted from the external control device 20C (see step S292 of FIG. 21). When determining that it has not received the non-shooter appointment signal from the external control device 200, the main CPU 71 shifts the processing to step S553. On the other hand, when determining that it has not received the non-shooter appointment signal from the external control device 200, the main CPU 71 shifts the processing to step S554.

[1047] In step S554, the main CPU 71 determines whether or not is has received a non-participant appointment signal from the external control device 200. The non-participant appointment signal is a signal transmitted from the external control device 20C (see step S293 of FIG. 21). When determining that it has not received the non-participant appointment signal from the external control device 200, the main CPU 71 shifts the processing to step S552. On the other hand, when determining that it has not received the non-participant appointment signal from the external control device 200, the main CPU 71 ends the present subroutine.

[1048] In step S553, the main CPU 71 executes the craps game-related processing.

[1049] The craps game-related processing has been already described with reference to FIG. 28.

[1050] After the processing of step S553, the main CPU 71 ends the present subroutine.

[1051] As above, descriptions have been given on the craps-game occurrence signal reception processing executed by the gaming machine 1.

<Roll Image>

[1052] Now, descriptions are given on an image to be displayed on the lower image display panel 131 provided in the gaming machine 1 according to the first embodiment of the present invention.

[1053] FIG. 30A is a view illustrating a roll image 1000 displayed on the lower image display panel 141 provided in the gaming machine selected as the shooter (shooter gaming machine).

[1054] More specifically, the roll image 1000 is an image displayed on the lower image display panel 141 provided in the gaming machine selected as the shooter (shooter gaming machine). The roll image 1000 includes a display area for a bet table image 901 for craps game, a display area for a roll button image 902 positioned under the bet table image 901, and a display area for a coin image 903.

[1055] The roll button image 92 displays characters of "Come out roll", when the current state of the craps game is a timing of the come out roll. On the other hand, the roll button image 92 displays characters of "Point roll", when the current state of the craps game is a timing of the point roll. The come out roll refers to the first roll and the point roll refers to the second or later rolls. A press of the roll button image 902 on the touch panel 114 (roll operation) enables a roll of dice images 905. The dice images 905 appear on the bet table image 901 when the roll operation has been made and are displayed as animated images of rolling dice until the result of the craps game is determined.

[1056] In addition, the roll image 1000 has a display area for a words-balloon image 904. In the words-balloon image 904, characters of "Roll Please" are displayed. The words-balloon image 904 appears only when that gaming machine is selected as the shooter. The words-balloon image 904 notifies the player that he or she has been selected as the shooter and signals the player to roll dice. Further, the roll image 1000 has a display area for the coin image 903 on the side of the roll button image 902. The number of the coin images 903 is increased or decreased in accordance with the bet amount. Here, a relation between the number of the coin images 903 and the bet amount may be one coin for one bet, or alternatively, one coin for N (natural number) bets.

[1057] As above, descriptions have been given on the roll image 1000 displayed on the lower image display panel 141 provided in the shooter gaming machine with reference to FIG. 30A.

[1058] As above, an example of the first embodiment of the present invention has been described with reference to FIGS. 1 to 30A. In this example, after the total prize amount data (first resource data) is updated to the data indicative of the sum of the amount indicated by the total prize amount data and the amount indicated by the total Hidden amount data (second resource data), the game media is provided to the gaming machine based on the updated total prize amount data

[1059] However, in the processing (E) of the inventions (1) and (4) and in the step (E) of the invention (11), after the total prize amount data (first resource data) is updated to the data indicative of the amount indicated by the total Hidden amount data (second resource data), the game media may be provided to the gaming machine based on the updated total prize amount data.

[1060] In the following, an example is described where, after the total prize amount data (first resource data) is updated to the data indicative of the amount indicated by the total Hidden amount data (second resource data), the game media is provided to the gaming machine based on the updated total prize amount data.

<Total Hidden Amount Display Processing>

[1061] Next, descriptions are given on total Hidden amount display processing (see step S261 of FIG. 18) executed by an external control device 200 according to another embodiment with reference to FIG. 30B.

[1062] FIG. 30B is a view illustrating a flowchart of total Hidden amount display processing executed by the external control device 200.

[1063] First, the main CPU 241 executes the processing of step S571. The processing is the same as the processing of step S371 of FIG. 26, and therefore, the descriptions thereof are omitted here.

[1064] After the processing of step S571, the main CPU 241 determines whether or not the total Hidden amount indicated by the total Hidden amount data stored in the total Hidden amount storage area provided in the RAM 243 is larger than the total prize amount indicated by the total prize amount data stored in the total prize amount storage area provided in the RAM 243 (step S572). When determining the total Hidden amount indicated by the total Hidden amount data stored in the total Hidden amount storage area is smaller than the total prize amount indicated by the total prize amount data stored in the total prize amount storage area, the main CPU 241 ends the present subroutine. On the other hand, when determining the total Hidden amount indicated by the total Hidden amount data stored in the total Hidden amount storage area is larger than the total prize amount indicated by the total prize amount data stored in the total prize amount storage area, the main CPU 241 determines the amount corresponding to the total Hidden amount indicated by the total Hidden amount data stored in the total Hidden amount storage area as a new total prize amount and updates the totalamount-prizes data (step S573).

[1065] Next, the main CPU 241 transmits total prize amount information including the total prize amount data updated in step S573 to the gaming machine 1 (step S574). On receiving the total prize amount information from the external

control device 200, the main CPU 71 provided in the gaming machine 1 executes the processing of displaying the total prize amount indicated by the total prize amount data included in that total prize amount information (not illustrated). In this processing, the total prize amount is displayed on the middle image display panel 650 (see FIG. 1A).

[1066] Next, the main CPU 241 determines the amount corresponding to the total Hidden amount indicated by the total Hidden amount data stored in the total Hidden amount storage area and updates the total bonus amount data (step S575).

[1067] Then, the main CPU 241 sets the total Hidden amount indicated by the total Hidden amount data stored in the total Hidden amount storage area to zero (step S576).

[1068] In the present embodiment, the processing (E) in the inventions of (1) and (4) and the step (E) in the invention of (11) are configured as described below.

[1069] Namely, when the total prize amount is reduced to the predetermined amount (15000) or less, the data indicative of the total Hidden amount is stored in the first storage area as total prize amount data. Then, a part (predetermined percentage=14%) of the bet amount betted to the slot game is added to that total Hidden amount so as to be accumulated. When a predetermined condition is satisfied, game media is provided based on the total prize amount data stored in the first storage

**[1070]** However, the processing (E) in the inventions of (1) and (4) and the step (E) in the invention of (11) may also be configured as described below.

[1071] Namely, when the total prize amount is reduced to the predetermined amount (15000) or less, a part (the above predetermined percentage) of the bet amount betted to the slot game is added to the total Hidden amount stored in the second storage area. When a predetermined condition is satisfied, game media is provided based on the data stored in the second storage area.

[1072] As above, descriptions have been given on the total Hidden amount display processing executed by the external control device 200.

[1073] As above, the first embodiment has been described with reference to FIGS. 1 to 30.

[1074] In the present embodiment, there has been described a case where the total prize amount storage area and the total Hidden amount storage area are provided in one memory device called RAM 243. However, in the present invention, the first storage area and the second storage area may be provided in different memory device separately.

[1075] In the present embodiment, there has been described a case where a part of the bet amount betted to the slot game is accumulated so as to form the total Hidden amount. However, the second resource data in the present invention is not limited to this case. For example, the second resource data may be overflow data in the inventions of (12) to (20).

[1076] Further, for example, data indicative of a fraction generated in exchanging money to another currency may be stored as the second resource data. For example, in the case of exchanging 100 yen into Dollars when the exchange rate is 90 yen to the dollar, 10 yen as a fraction may be accumulated as the total Hidden amount. In such a case, it is possible to employ a configuration where a currency converter capable of exchanging a predetermined currency to another currency is connected to the server or where such a currency converter is provided in the gaming machine.

38

[1077] In the present embodiment, there has been described a case where the predetermined condition of the present invention is that "the individual bet amount in any of the gaming machines has reached the event triggering amount" (see step S253 of FIG. 18). However, the predetermined condition of the present invention is not limited to this case. Namely, the predetermined condition of the present invention may be that "the total prize amount stored in the total prize amount storage area has reached the event triggering amount". Further, the predetermined condition of the present invention may be that "the total Hidden amount stored in the total Hidden amount storage area has reached the event triggering amount". Furthermore, the predetermined condition of the present invention may be that "the total bonus amount stored in the total bonus amount storage area has reached the event triggering amount". Moreover, the predetermined condition of the present invention may be that "a random number extracted at a predetermined timing (e.g. when the spin button is pressed in the gaming machine) falls within a predetermined numerical range".

[1078] In the present embodiment, a display (middle image display panel 650) capable of displaying an image is employed as an output device. However, the output device of the present invention may be a speaker capable of outputting sound. Alternatively, both a display and a speaker may be provided as output devices.

[1079] Further, in the present embodiment, there has been described a case where the output device is included in the gaffing machine. However, the output device of the present invention may be connected to the server. Alternatively, both the output device connected to the server and the output device included in the gaming machine may be employed.

[1080] In the present embodiment, there has been described a case where the accumulated bet amount of the present invention is the individual bet amount. Here, the individual bet amount refers to the accumulated amount of the bet amount betted to the slot game for each gaming machine. However, the individual bet amount of the present invention is not limited to this case. Namely, the individual bet amount of the present invention may be an amount formed by accumulating a part of the bet amount betted to the slot game for each gaming machine.

[1081] In the present embodiment, there has been described a case where the common game of the present invention is the craps game. However, the common game of the present invention is not limited to this case. Namely, the common game of the present invention may be any kind of game including a card game such as poker, or a game such as a shooting game and a fighting game, provided that it is a game in which a plurality of gaming machines can participate.

[1082] Further, in the present embodiment, a configuration may be employed in which a common game is not executed and game media is simply provided when a predetermined condition is satisfied.

[1083] According to the first embodiment of the present invention, a craps game is executed when the individual bet amount has reached the event triggering amount and game media is provided in the craps game. Accordingly, it is possible to have the player play a game having an expectation for an occurrence of the craps game.

[1084] In addition, even when the amount of game media indicated by the total prize amount data becomes small, a payout can be conducted with use of the game media indicated by the total Hidden amount data as the resource. Therefore, it is possible to maintain the player's expectation for the craps game.

Mar. 17, 2011

[1085] According to the first embodiment of the present invention, an image or sound notifies the player of the amount of game media indicated by the total prize amount data. This allows the player to know the amount of game media that may be provided when the predetermined condition is satisfied. A larger amount of game media indicated by the image or sound may normally increase the player's expectation for the satisfaction of the predetermined condition.

[1086] On the other hand, the reduced amount of game media indicated by the first resource data may reduce the player's expectation for the satisfaction of the predetermined condition. In this regard, according to the first embodiment of the present invention, the player is notified of the amount of game media indicated by the total Hidden amount data after the amount of gave media indicated by the total prize amount data is reduced to the predetermined amount or less. This allows the player to maintain his or her expectation for the satisfaction of the predetermined condition.

[1087] Further, according to the first embodiment of the present invention, the player is notified of the amount of game media indicated by the total prize amount data until the amount of game media indicated by the total prize amount data is reduced to the predetermined amount. Then, the player is suddenly notified of the amount of game media indicated by the total Hidden amount data when the amount of game media indicated by the total prize amount data is reduced to the predetermined amount or less. This may surprise the player and the player may feel as if he or she has found secret savings. As a result, it is possible to provide a more interesting game to allow the player to be absorbed in the game.

[1088] Furthermore, according to the first embodiment of the present invention, an amount corresponding to apart of the game media betted in the gaming machine is accumulated. The total prize amount data indicates the amount of game media thus accumulated. When the predetermined condition is satisfied, game media is provided based on the total prize amount data. Accordingly, the player having received the game media when the predetermined condition is satisfied may feel as if a part of the game media betted by other players is paid out to him or her. This may offer a sense of superiority and satisfaction to the player.

[1089] Moreover, according to the first embodiment of the present invention, a part of the amount of game media betted in the gaming machine is accumulated. The total Hidden amount data indicates the amount of game media thus accumulated. Accordingly, every time the player places a bet in the gaming machine, the amount of game media indicated by the total Hidden amount data is definitely increased. Consequently, the player can prepare for the case where the amount of the game media indicated by the total prize amount data becomes small.

## Second Embodiment

[1090] In a second embodiment, the inventions of (12) to (20) are described.

[1091] In the following, the same reference numerals are given to the components identical to the components of the gaming system 300 according to the first embodiment.

[1092] Descriptions are omitted for parts in the second embodiment to which descriptions in the first embodiment are applicable.

[1093] First, the outline of the second embodiment is described with reference to FIG. 31.

[1094] FIG. 31 is a conceptual view for explaining the outline of the present embodiment.

[1095] FIG. 31 is schematic view illustrating the state where the total prize amount has already reached the predetermined amount.

[1096] As illustrated in FIG. 31, a part of the bet amount is accumulated into the total prize amount until the total amount reaches a predetermined amount (99999) in the present embodiment. A part of the bet amount betted after reaching of the total prize amount to the predetermined amount (99999) is accumulated into the total overflowing amount.

[1097] In the present embodiment, the amount resulting from accumulating a part of the bet amount betted after reaching of the total prize amount to the predetermined amount (99999) is referred to as an overflowing amount.

[1098] As above, in the present embodiment, the overflowing amount is accumulated into the total overflowing amount. [1099] The data showing the total overflowing amount in the present embodiment corresponds to the overflow data in the inventions of (12) to (20). Further, the total overflowing amount storage area in the present embodiment corresponds

to the second storage area in the inventions of (12) to (20). [1100] In the above, the outline of the second embodiment has been described with reference to FIG. 31.

[1101] Hereinafter, the present embodiment is described in more detail.

<Bet: Amount Information Reception Processing>

[1102] Next, with reference to FIG. 32A, the bet amount information reception processing is described which is executed by the external control device 200 according to the second embodiment of the present invention.

[1103] FIG. 32A is a view illustrating a flowchart of the bet amount information reception processing executed by the external control device 200.

[1104] The main CPU 241 executes the processing of step S2251 to step S2260. The processing is the same as the processing of step S251 to step S260 of FIG. 18, and thus the descriptions thereof are omitted here.

[1105] After the processing of step S260, the main CPU 241 executes total overflowing amount display processing (step S2261). The total overflowing amount display processing will be described later with reference to FIG. 32D.

[1106] After the processing of step S2261, the main CPU 241 ends the present subroutine.

[1107] In the above, the bet amount information reception processing executed by the external control device 200 has been described with reference to FIG. 32A.

# <Bet-Related Amount Update Processing>

[1108] With reference to FIG. 32B, the bet-related amount update processing (see step S252 of FIG. 18) is described which is executed by the external control device 200 according to the second embodiment of the present invention.

[1109] FIG. 32B is a view illustrating a flowchart of the bet-related amount update processing executed by the external control device 200.

[1110] As described with reference to FIG. 19, the betrelated amount is updated based on the bet amount information transmitted from the gaming machine 1 in step S51 described with reference to FIG. 10. [1111] First, the main CPU 241 executes the processing of step S601 to step S602. The processing is the same as the processing of step S271 to step S272 of FIG. 19, and thus the descriptions thereof are omitted here.

[1112] After the processing of step S602, the main CPU 241 determines whether or not a full flag is set (step S603). The full flag shows that the total prize amount, shown by the total prize amount data stored in the total prize amount storage area provided in the RAM 243, has reached the predetermined amount (99999) (see step S608 to step S611).

[1113] When determining that the full flag is not set, the main CPU 241 shifts the processing to step S605.

[1114] In contrast, when determining that the full flag is set, the main CPU 241 executes the processing of adding the amount, corresponding to 14% of the bet amount shown by the bet amount information, to the total overflowing amount shown by the total overflowing amount data stored in the total overflowing amount storage area provided in the RAM 243 (step S604).

[1115] After the processing of step S604, the main CPU 241 ends the present subroutine.

[1116] In step S605, the main CPU 241 determines whether or not the sum of the total prize amount shown by the total prize amount data stored in the total prize amount storage area provided in the RAM 243 and the amount corresponding to 14% of the bet amount shown by the bet amount information is equal to or smaller than the predetermined amount (99999).

[1117] When determining that the sum of the total prize amount shown by the total prize amount data stored in the total prize amount storage area and the amount corresponding to 14% of the bet amount shown by the bet amount information is not equal to or smaller than the predetermined amount (99999), the main CPU 241 shifts the processing to step S608. On the other hand, when determining that the sum of the total prize amount shown by the total prize amount data stored in the total prize amount storage area and the amount corresponding to 14% of the bet amount shown by the bet amount information is equal to or smaller than the predetermined amount (99999), the main CPU 241 shifts the processing to step S606.

[1118] Next, the main CPU 241 executes the processing of step S605 to step S607. The processing is the same as the processing of step S273 to step S274 of FIG. 19, and thus the descriptions thereof are omitted here.

[1119] After the processing of step S607, the main CPU 241 ends the present subroutine.

[1120] In step S608, the main CPU 241 sets the total prize amount, shown by the total prize amount data stored in the total prize amount storage area provided in the RAM 243, to the predetermined amount.

[1121] Next, the main CPU 241 executes the processing of step S609. The processing is the same as the processing of step S274 of FIG. 19, and thus the descriptions thereof are omitted here.

[1122] After the processing of step S609, the main CPU 241 sets as the total overflowing amount an amount resulting from subtracting the predetermined amount (99999) from the sum of the total prize amount shown by the total prize amount data stored in the total prize amount storage area provided in the RAM 243 and the amount corresponding to 14% of the bet amount shown by the bet amount information (step S610).

[1123] Next, the main CPU 241 sets the full flag (step S611).

[1124] After the processing of step S611, the main CPU 241 ends the present subroutine.

[1125] In the above, the bet-related amount update processing executed by the external control device 200 according to the second embodiment of the present invention has been described with; reference to FIG. 32.

## <Craps Game Execution Processing>

[1126] With reference to FIG. 32C, the craps game execution processing (see step S260 of FIG. 18) is described which is executed by the external control device 200 according to the second embodiment of the present invention.

[1127] FIG. 32C is a view illustrating a flowchart of the craps game execution processing executed by the external control device 200.

[1128] The main CPU 241 executes the processing of steps S641 to S648, steps S650 to S653, and steps S655 to S664. The processing is the same as the processing of steps S307 to S314, steps S315 to S318, and steps S319 to S328 of FIG. 22B, and thus the descriptions thereof are omitted here.

[1129] Accordingly, only steps S649 and S654 of FIG. 32C are described here.

[1130] After the processing of step S648, the main CPU 241 clears the full flag (step S649). Here, the full flag is a flag that is set when the total prize amount has been set to the predetermined amount (see step S611 of FIG. 32B).

[1131] After the processing of step S653, the main CPU 241 clears the full flag (step S654).

[1132] In the above, with reference to FIG. 32C, the craps game execution processing has been described which is executed by the external control device 200 according to the second embodiment of the present invention.

#### <Total Overflowing Amount Display Processing>

[1133] Now, with reference to FIG. 32D, the total overflowing amount display processing (see step S2261 of FIG. 32A) is described which is executed by the external control device 200 according to the second embodiment of the present invention.

[1134] FIG. 32D is a view illustrating a flowchart of the total overflowing amount display processing executed by the external control device 200.

[1135] The main CPU 241 determines whether or not the total prize amount shown by the total prize amount data stored in the total prize amount storage area provided in the RAM 243 is equal to or smaller than the predetermined value (step S2371). When determining that the total prize amount shown by the total prize amount data stored in the total prize amount storage area provided in the RAM 243 is not equal to or smaller than the predetermined value, the main CPU 241 ends the present subroutine. On the other hand, when determining that the total prize amount shown by the total prize amount data stored in the total prize amount storage area is equal to or smaller than the predetermined value, the main CPU 241 shifts the processing to step S2372.

[1136] In step S2372, the main CPU 241 determines as a new total prize amount the sum of the total overflowing amount shown by the total overflowing amount data stored in the total overflowing amount storage area provided in the RAM 243 and the total prize amount shown by the total prize amount data stored in the total prize amount storage area provided in the RAM 243, and updates the total prize amount data.

[1137] Next, the main CPU 241 executes the processing of step S2373 to step S2374. The processing is the same as the processing of step S373 to step S374 of FIG. 26, and thus the descriptions thereof are omitted here.

[1138] Next, the main CPU 241 sets the total overflowing amount, shown by the total overflowing amount data stored in the total overflowing amount storage area, to 0 (step S2375).

[1139] After step S2375, the main CPU 241 ends the present subroutine.

[1140] In the above, the total overflowing amount display processing executed by the external control device 200 has been described with reference to FIG. 32D.

[1141] In the above, one example of the second embodiment of the present invention has been described with reference to FIG. 32A to FIG. 32D. The overflowing amount is accumulated into the total overflowing amount in this example. In the inventions of (12) to (20), the overflowing amount may be accumulated into the total Hidden amount described in the first embodiment as well as into the total overflowing amount.

[1142] Hereinafter, an example is given in which the total Hidden amount is accumulated, with reference to FIG. 33A and FIG. 33B.

[1143] With reference to FIG. 33A, the bet-related amount update processing (see step S252 of FIG. 18) is described which is executed by the external control device 200 according to another embodiment.

[1144] FIG. 33A is a view illustrating the bet-related amount update processing executed by the external control device 200.

[1145] As described with reference to FIG. 19, the betrelated amount is updated based on the bet amount information transmitted from the gaming machine 1 in step S51 described with reference to FIG. 10.

[1146] First, the main CPU 241 executes the processing of step S671 to step S681. The processing is the same as the processing of step S601 to step S611 of FIG. 32B, and thus the descriptions thereof are omitted here.

[1147] Accordingly, only step S682 is described here.

[1148] In step S682, the main CPU 241 executes processing of adding an amount, corresponding to 2% of the bet amount shown by the bet amount information, to the total Hidden amount shown by the total Hidden amount data stored in the total Hidden amount storage area provided in the RAM 243.

[1149] After the processing of step S682, the main CPU 241 ends the present subroutine.

[1150] In the above, with reference to FIG. 33A, the betrelated amount update processing has been described which is executed by the external control device 200 according to the other embodiment of the present invention.

## <Total Overflowing Amount Display Processing>

[1151] Now, with reference to FIG. 33B, the total overflowing amount display processing (see step S2261 of FIG. 32A) executed by the external control device 200 according to another embodiment of the present invention is described.

[1152] FIG. 33B is a view illustrating a flowchart of the total overflowing amount display processing executed by the external control device 200.

[1153] Next, the main CPU 241 executes the processing of step S700. The processing is the same as the processing of step S2371 of FIG. 32D, and thus the descriptions thereof are omitted here.

[1154] In step S701, the main CPU 241 determines as a new total prize amount the sum of the total overflowing amount shown by the total overflowing amount data stored in the total overflowing amount storage area provided in the RAM 243 and the total prize amount shown by the total prize amount data stored in the total prize amount storage area provided in the RAM 243, and updates the total prize amount data.

[1155] Next, the main CPU 241 sets the total overflowing amount, shown by the total overflowing amount data stored in the total overflowing amount storage area, to 0 (step S702).

[1156] Then, the main CPU 241 determines whether or not the total prize amount shown by the total prize amount data stored in the total prize amount storage area provided in the RAM 243 is equal to or smaller than the predetermined value (step S703). When determining that the total prize amount shown by the total prize amount data stored in the total prize amount storage area is not equal to or smaller than the predetermined value, the main CPU 241 shifts the processing to step S706. On the other hand, when determining that the total prize amount shown by the total prize amount data stored in the total prize amount storage area is equal to or smaller than the predetermined value, the main CPU 241 shifts the processing to step S704.

[1157] In step S704, the main CPU 241 determines as a new total prize amount the sum of the total Hidden amount shown by the total Hidden amount data stored in the total Hidden amount storage area provided in the RAM 243 and the total prize amount shown by the total prize amount data stored in the total prize amount storage area provided in the RAM 243, and updates the total prize amount data.

[1158] Next, the main CPU 241 sets the total Hidden amount, shown by the total Hidden amount data stored in the total Hidden amount storage area, to 0 (step S705).

[1159] When determining after step S705 or in step S703 that the total prize amount shown by the total prize amount data stored in the total prize amount storage area is not equal to or smaller than the predetermined value, the main CPU 241 shifts the processing to step S706.

[1160] The main CPU 241 executes the processing of step S706 to step S707. The processing is the same as the processing of step S2373 to step S2374 of FIG. 32D, and thus the descriptions thereof are omitted here.

[1161] After the processing of step S707, the main CPU 241 ends the present subroutine.

[1162] In the above, with reference to FIG. 33B, the total overflowing amount display processing (see step S2261 of FIG. 32A) has been described which is executed by the external control device 200 according to the other embodiment of the present invention.

[1163] Hereinbefore, the example has been described in which the total Hidden amount is accumulated, with reference to FIG. 33A and FIG. 33B.

[1164] In the above, the second embodiment has been described with reference to FIG. 31 to FIG. 33.

[1165] In the present embodiment, examples have been described in which the amount of game media shown by the overflow data in the inventions of (12) to (20) is not displayed together with the total prize amount (the first resource data), on the middle image display panel 650. However, the amount of game media shown by the overflow data in the inventions of (12) to (20) may be displayed together with the total prize amount (the first resource data).

[1166] According to the second embodiment of the present invention, when the individual bet amount reaches an event

triggering amount, the craps game is executed and game media is provided based on the total prize amount data, whereby the amount of game media indicated by the total prize amount data is reduced. Namely, the game media indicated by the total prize amount data is used as a resource of the payout. Further, when the individual bet amount reaches the amount of an event triggering amount and a craps game is executed after the amount of game media shown by the total prize amount data is reduced to the predetermined amount or less, game media is provided based on the total overflowing amount data (overflow data).

[1167] Accordingly, even when the amount of game media indicated by the total prize amount data becomes small, it is possible to pay out game media by using the game media indicated by the total overflowing amount data as a resource. Consequently, it is possible to maintain the player's expectation for the payout of game media to be conducted in the craps game.

[1168] Further, according to the second embodiment of the present invention, an image or a sound notifies the player of the amount of the game media shown by the total prize amount data. This allows the player to know the amount of game media that may be provided when the craps game is generated. A larger amount of game media indicated by the image or the sound may normally increase the player's expectation for the generation of the craps game.

[1169] On the other hand, when payout is conducted in the craps game to reduce the amount of game media indicated by total prize amount data, the player's expectation for the generation of the craps game may be reduced. In this regard, according to the second embodiment of the present invention, the player is notified of the amount of game media indicated by the total overflowing amount data after the amount of game media indicated by the total prize amount data has been reduced to the predetermined amount or less. This maintains the player's expectation for the generation of the craps game.

[1170] Further, according to the second embodiment of the present invention, the player is notified of the amount of game media indicated by the total prize amount data until the amount of game media indicated by the total prize amount data is reduced to the predetermined amount. Then, the player is suddenly notified of the amount of game media indicated by the total overflowing amount data when the amount of game media indicated by the total prize amount data is reduced to the predetermined amount or less. This may surprise the player and the player may feel as if he or she has found secret savings. As a result, it is possible to provide a more interesting game to allow the player to be absorbed in the game.

[1171] According to the second embodiment of the present invention, the amount in accordance with the amount of game media betted in the gaming machine is accumulated in the total prize amount storage area. The total prize amount data indicates the amount of game media thus accumulated. After the amount of game media indicated by the total prize amount data has reached the predetermined amount, the amount in accordance with the amount of game media betted in the gaming machine is accumulated in the total overflowing amount storage area. The total overflowing amount data indicates the amount of game media thus accumulated. Based on the total overflowing amount data, game media is provided in the craps game.

[1172] Accordingly, even after the amount of game media indicated by the total prize amount data has reached the predetermined amount, game media betted in the gaming

machine is accumulated ongoingly. The accumulated game media is used as a resource of the payout in the craps game. This can surprise the player who may think that the accumulation of game media has been terminated because the amount of game media indicated by the total prize amount data has reached the predetermined amount. As a result, it is possible to provide a more interesting game to allow the player to be absorbed in the game.

#### Third Embodiment

[1173] In a third embodiment, the inventions of (21) to (26) are described.

[1174] In the following, the same reference numerals are given to the components identical to the components of the gaming system 300 according to either of the above embodiments.

[1175] Descriptions are omitted for parts in the third embodiment to which descriptions in either of the above embodiments are applicable.

[1176] First, the outline of the third embodiment is described with reference to FIG. 34.

[1177] FIG. 34A is a view illustrating a management-side input device connected to an external control device according to the third embodiment of the present invention.

[1178] FIG. 34B to FIG. 34C are views illustrating an exemplary image displayed on the common display device included in the gaming system according to the third embodiment of the present invention.

[1179] As illustrated in FIG. 34A, a management-side input device 740 and an administrative display device 660 (see FIG. 34A; are connected to the external control device 200.

[1180] The administrator or the like of the game facility having the gaming system 300 constructed therein can input a command to change the settings of the accumulation percentage for the total prize amount (see FIG. 1B), a setting range of the event triggering amount, and a setting amount for participation, using the management-side input device 740.

[1181] Each of the accumulation percentage for the total prize amount (see FIG. 1B), the setting range of the event triggering amount, and the setting amount for participation corresponds to the "setting related to the common game" in the invention of (21).

[1182] The accumulation percentage for the total prize amount corresponds to the "accumulation percentage" in the invention of (22).

[1183] The setting range of the event triggering amount corresponds to "a range of the accumulated amount" in the invention of (23).

[1184] Further, each of the accumulation percentage for the total prize amount, the setting range of the event triggering amount, and the setting amount for participation correspond to the "common game-related value" in the invention of (25).

[1185] The management-side input device 740 is not specifically limited as long as being able to receive an input for configuring a setting related to a common game, and may be a keyboard input device, a touch-panel input device, or the like.

[1186] Each of the 1-bet button 34 and the maximum bet button 35 corresponds to the terminal-side input device in the present invention.

[1187] When an input is made for changing the accumulation percentage for the total prize amount, the setting range of the event triggering amount, or the setting amount for partici-

pation, the administrative display device 660 displays a setting changing image (see FIG. 34B) and a setting-changed image (see FIG. 34C).

[1188] As illustrated in FIG. 34B, the setting changing image includes a character image 3310 saying "please enter values to which you wish to change the displayed values."

[1189] The setting changing image also includes an image 3302 for changing accumulation percentage, an image 3303 for changing setting range of event triggering amount, and an image 3304 for changing setting amount for participation.

[1190] Further, the setting changing image includes a setting image 3305 showing the accumulation percentage, the setting range of the event triggering amount, and the setting amount for participation which are of before the change.

[1191] As illustrated in FIG. 34C, the setting-changed image includes a character image 3311 saying "the settings were changed."

[1192] The setting-changed image also includes the image 3302 for changing accumulation percentage, the image 3303 for changing setting range of event triggering amount, and the image 3304 for changing setting amount for participation.

[1193] Further, the setting-changed image includes the setting image 3305 showing the accumulation percentage, the setting range of the event triggering amount, and the setting amount for participation which are of after the change.

[1194] Hereinbefore, the third embodiment has been summarized with reference to FIG. 34A to FIG. 34C.

[1195] Hereinafter, the present embodiment is further described in detail.

[1196] Next, craps game value input processing is described with reference to FIG. 35.

[1197] FIG. 35 is a view illustrating a flowchart of the craps game value input processing executed by the external control device according to the third embodiment of the present invention.

[1198] Although not illustrated, the administrator or the like of the game facility can have the setting changing image (see FIG. 34B) displayed by making a predetermined operation using the management-side input device 740.

[1199] The processing shown in FIG. 35 is executed when the setting changing image (see FIG. 34B) is displayed.

[1200] First, the main CPU 241 determines whether or not it has received an accumulation percentage changing signal (step S3401). The accumulation percentage changing signal is transmitted when an input for changing the accumulation percentage is made via the management-side input device 740. The accumulation percentage changing signal carries accumulation percentage data showing the inputted accumulation percentage.

[1201] When the main CPU 241 determines that it has received the accumulation percentage changing signal, the main CPU 241 determines whether or not the accumulation percentage shown by the accumulation percentage data included in the accumulation percentage changing signal falls within the numerical range shown by an accumulation percentage threshold (step S3402).

[1202] The accumulation percentage threshold is the range within which the accumulation percentage can be changed. The accumulation percentage threshold data showing the accumulation percentage threshold is stored in the ROM 242.

[1203] The accumulation percentage threshold data corresponds to the threshold data in the invention of (25), and the ROM 242 corresponds to the memory device in the invention of (25).

[1204] When determining that the accumulation percentage shown by the accumulation percentage data included in the accumulation percentage changing signal falls within the numerical range shown by the accumulation percentage threshold, the main CPU 241 stores into the storage area of the RAM 243 the data showing the accumulation percentage as post-change accumulation percentage data (step S3403). The RAM 243 corresponds to the memory device in the invention of (25). The post-change accumulation percentage data corresponds to the post-setting common game-related value data in the present invention.

[1205] After execution of step S3403, when the main CPU 241 determines in step S3401 that it has not received the accumulation percentage changing signal, or when the main CPU 241 determines in step S3402 that the accumulation percentage shown by the accumulation percentage data included in the accumulation percentage changing signal does not fall within the numerical range shown by the accumulation percentage threshold, the main CPU 241 determines whether or not it has received a setting-amount-for-participation changing signal (step S3404). The setting-amount-for-participation changing signal is transmitted when an input for changing the setting amount for participation is made via the management-side input device 740. The setting-amount-for-participation changing signal carries accumulation percentage data showing the inputted setting amount for participation

[1206] When the main CPU 241 determines that it has received the setting-amount-for-participation signal, the main CPU 241 determines whether or not the setting amount for participation shown by the setting-amount-for-participation data included in the setting-amount-for-participation signal falls within the numerical range shown by the setting-amount-for-participation threshold (step S3405). The setting-amount-for-participation threshold is the range within which the setting amount for participation can be changed. The setting-amount-for-participation threshold data showing the setting-amount-for-participation threshold is stored in the ROM 242.

[1207] The setting-amount-for-participation threshold data corresponds to the threshold data in the invention of (25), and the ROM 242 corresponds to the memory device in the invention of (25).

[1208] When determining that the setting amount for participation shown by the setting-amount-for-participation data included in the setting-amount-for-participation changing signal falls within the numerical range shown by the setting-amount-for-participation threshold, the main CPU 241 stores the data showing the setting amount for participation as post-change setting-amount-for-participation data, into the storage area of RAM 243 (step S3406).

[1209] The RAM 243 corresponds to the memory device in the invention of (25).

[1210] The post-change setting-amount-for-participation data corresponds to the post-setting common game-related value data in the present invention.

[1211] After execution of step S3406, when the main CPU 241 determines in step S3404 that it has not received the setting-amount-for-participation signal, or when the main CPU 241 determines in step S3405 that the setting amount for participation shown by the setting-amount-for-participation data included in the setting-amount-for-participation changing signal does not fall within the numerical range shown by the setting-amount-for-participation threshold, the main CPU

241 determines whether or not it has received a signal for changing setting range of event triggering amount (step S3407). The signal for changing setting range of event triggering amount is transmitted when an input for changing the setting range of the event triggering amount is made via the management-side input device 740. The signal for changing setting range of event triggering amount carries data of setting range of event triggering amount showing the inputted setting range of the event triggering amount.

[1212] When the main CPU 241 determines that it has received the signal for changing the setting range of the event triggering amount, the main CPU 241 determines whether or not the setting range of the event triggering amount shown by the data of the setting range of the event triggering amount included in the signal for changing the setting range of the event triggering amount falls within the numerical range shown by the threshold of the setting range of the event triggering amount (step S3408). The threshold of the setting range of the event triggering amount is the range within which the setting range of the event triggering amount can be changed. The threshold data of the setting range of the event triggering amount showing the threshold of the setting range of the event triggering amount stored in the ROM 242.

[1213] The threshold data of the setting range of the event triggering amount corresponds to the threshold data in the invention of (25), and the ROM 242 corresponds to the memory device in the invention of (25).

[1214] When determining that the setting range of the event triggering amount shown by the data of the setting range of the event triggering amount included in the signal for changing the setting range of the event triggering amount falls within the numerical range shown by the threshold of the setting range of the event triggering amount, the main CPU 241 stores data showing the setting range of the event triggering amount as the post-change data of the setting range of the event triggering amount, into the storage area of the RAM 243 (step S3409). The RAM 243 corresponds to the memory device in the invention of (25). The post-change data of the setting range of the event triggering amount corresponds to the post-setting common game related value data in the present invention.

[1215] After execution of step S3409, when the main CPU 241 determines in step S3407 that it has not received the signal for changing the setting range of the event triggering amount, or when the main CPU 241 determines in step S3408 that the setting range of the event triggering amount shown by the data of the setting range of the event triggering amount included in the signal for changing the setting range of the event triggering amount does not fall within the numerical range shown by the threshold of the setting range of the event triggering amount, the main CPU 241 ends the present subroutine.

[1216] Next, with reference to FIG.  $36\mathrm{A}$  to FIG.  $36\mathrm{B}$ , the craps game execution processing (see step S260 of FIG. 18) is described.

[1217] FIG. 36 are views illustrating a flowchart of the craps game execution processing executed by the gaming system according to the third embodiment of the present invention.

[1218] First, the main CPU 241 executes the processing of step S3301 to step S3320, and step S3321 to step S3328. The processing is the same as the processing of step S301 to step

S320 and of step S321 to step S328 described with reference to FIG.  $22\mathrm{A}$  to FIG.  $22\mathrm{B}$ , and thus the descriptions thereof are omitted here.

[1219] After executing step S3320, the main CPU 241 executes event triggering amount determination processing (step S3330). In this step, the main CPU 241 extracts a random value and determines one event triggering amount from among the amounts in the range of the setting range of the event triggering amount shown by the post-change data of the setting range of the event triggering amount stored in the RAM 243.

[1220] The main CPU 241 stores the data showing the determined event triggering amount into the storage area of the RAM 243.

[1221] After executing step S3330, the main CPU 241 ends the present subroutine.

[1222] In the above, the third embodiment has been described with reference to FIG. 34 to FIG. 36.

[1223] Although the accumulation percentage for the total prize amount, the setting range of the event triggering amount, and the setting amount for participation are adopted as the settings related to the common game, the "setting related to a common game" in the invention of (21) is not limited to this example.

[1224] For example, the setting related to a common game may be the accumulated amount or a payout ratio in the common game.

[1225] Alternatively, the setting related to a common game may be setting related to acceptance of an input for an additional bet (see a fifth embodiment). For example, the setting accepting an input for an additional bet and the setting not accepting such an input may be switchable.

[1226] In the present embodiment, when the setting range of the event triggering amount is to be set to a desired numerical range (for example, \$200 to 300), a reference value (for example, 250) may be inputted via the management-side input device 740 (see FIG. 34B). However, in the invention of (23), input of a lower limit (for example, 200) and an upper limit (for example, 300) may change the setting range of the event triggering amount.

[1227] In the present embodiment, the setting amount for participation is common to all the gaming machines 1. However, the setting amount for participation may differ for each gaming machine. In the invention of (24), different setting amounts for participation may be set for the respective gaming machines by operation of the input device.

[1228] In the present embodiment, the memory device storing post-setting common game related value data and the memory device storing threshold data are different memory devices. However, in the invention of (25), the memory device storing post-setting common game related value data and the memory device storing threshold data may be the same memory device.

[1229] According to the third embodiment of the present invention, the amount of game media corresponding to the accumulation percentage (which is set with use of the management-side input device) of the amount of game media betted in the gaming machine is accumulated. In the craps game, game media is provided based on the amount of game media thus accumulated. Namely, the accumulated game media is used as a resource of the payout in the craps game.

[1230] A manager of a game facility can set the accumulation percentage by using the management-side input device. For example, at the time of the day or on the day of week,

when less gaming machines tend to be operated, it is possible to secure the resource for the payout in the craps game by setting a larger accumulation percentage. On the other hand, at the time of the day or on the day of week, when more gaming machines tend to be operated, it is possible to set a smaller accumulation percentage and increase the profit of the game facility by that amount.

[1231] Accordingly, the manager is allowed to maintain the game facility quickly and easily so that the best accumulation percentage corresponding to their management strategy is set. [1232] Further, according to the third embodiment of the present invention, the amount in accordance with the amount of game media betted in each of the gaming machines is accumulated in association with the gaming machine. Then, the craps game is executed when any of the individual bet amounts corresponding to the amounts of game media each accumulated for one of the gaming machines has reached the event triggering amount. The event triggering amount is specified within the range set with use of the management-side input device by a lottery.

[1233] A manager of a game facility can set the range of the event triggering amount by using the management-side input device.

[1234] For example, in accordance with various factors such as the day of week, a time period, a season, and an economic trend, the manager can set the setting range of the event triggering amount so as to allow a smaller event triggering amount to be easily specified to produce a situation that the craps game is more likely to be executed. Alternatively, the manager can set the setting range of the event triggering amount so as to allow a larger event triggering amount to be easily specified to produce a situation that the craps game is less likely to be executed.

[1235] Accordingly, the manager is allowed to maintain the game facility quickly and easily so that the best setting range of the event triggering amount corresponding to their management strategy is set.

[1236] Furthermore, according to the third embodiment of the present invention, the event triggering amount is specified within the range set with use of the management-side input device by a lottery at the end of the craps game. This may provide a craps game that is different every time in the event triggering amount within the set range. As a result, a craps game may be generated earlier than the timing expected by the player to surprise the player, or a craps game may not be generated after the timing expected by the player to worry the player. In this manner, it is possible to provide a game that swats the player emotionally.

[1237] According to the third embodiment of the present invention, the amount in accordance with the amount of game media betted in the gaming machine is accumulated in association with a the gaming machine. The gaming machine allowed to participate in the craps game is a gaming machine in which the individual bet amount corresponding to the amount of game media accumulated in association with that gaming machine has reached the setting amount for participation set with use of the management-side input device or more

[1238] A manager of a game facility can set the setting amount for participation by using the management-side input device.

[1239] For example, at the time of the day or on the day of week, when less gaming machines tend to be operated, the manager can set a smaller setting amount for participation to

secure the number of players participating in the craps game, resulting in the exciting craps game. On the other hand, at the time of the day or on the day of week, when more gaming machines tend to be operated, the manager can set a larger setting amount for participation to encourage the players that want to participate in the craps game to bet more game media. Further, it is possible to provide the players allowed to participate in the craps game with a sense of superiority.

[1240] Accordingly, the manager is allowed to maintain the game facility quickly and easily so that the best setting amount for participation corresponding to their management strategy is set.

[1241] According to the third embodiment of the present invention, the common game-related value indicated by the data included in the setting change signal is used as a new common game-related value, on condition that the common game-related value falls within the range indicated by the threshold data. Then, the common game is executed based on that common game-related value.

[1242] Accordingly, it is impossible to set the common game-related value not falling within the range indicated by the threshold data. Therefore, it is possible to avoid the case where the value not intended by the management of the game facility is set as the common game-related value by cheating, mistake, or the like. For example, it is possible to avoid the case where an unexpectedly large amount of game media is paid out in the craps game. As a result, it is possible to secure the sound operation and the credibility of the casino.

#### Fourth Embodiment

[1243] In a fourth embodiment, the inventions of (27) to (30) are described.

[1244] In the following, the same reference numerals are given to the components identical to the components of the gaming system 300 according to any of the above embodiments.

[1245] Descriptions are omitted for parts in the fourth embodiment to which descriptions in any of the above embodiments are applicable.

[1246] The fourth embodiment is described with reference to FIG. 37A and FIG. 37B.

[1247] FIG. 37A is an exemplary image displayed on the upper image display panel 131.

[1248] As a game explanation image 4410 of FIG. 37A shows, a larger bet amount on a slot game leads to a larger auto bet amount in the present embodiment. That is, the auto bet amount is increased along with the increase in the individual bet amount. This has been described with reference to FIG. 1G to FIG. 1I.

[1249] Further, as described with reference to FIG. 1G and FIG. 1I, the auto bet amount is a bet amount determined in accordance with the individual bet amount and set for the pass line bet in the gaming machine participating in the craps game. Also, description has been already given that the amount of game media to be paid out when the shooter wins in the craps game is increased in accordance with the increase in the auto bet amount (see FIG. 1G).

[1250] As the game explanation image 4410 of FIG. 37A shows, the prize amount paid in the craps game is increased along with the increase in the individual bet amount in the present embodiment. This has been described with reference to FIG. 1G to 1J.

[1251] In this manner, the auto bet amount determined in accordance with the individual bet amount is increased along

with the increase in the individual bet amount in the present embodiment. Further, the amount of game media to be paid out when the shooter wins in the craps game is increased in accordance with the increase in the auto bet amount.

[1252] FIG. 37B is a schematic view illustrating a relation between gaming machines and auto bet amounts indicated by the auto bet amount data stored in the auto bet amount storage area provided in the RAM 243.

[1253] In the example illustrated in FIG. 37B, pieces of auto bet amount data are stored in association with respective terminal numbers 001, 002, and 005.

[1254] In the present embodiment, the auto bet amount data is determined with respect to each participating gaming machine after the participating gaming machines are determined (see step S259 to step 260 of FIG. 18, and step S301 of FIG. 22A). Hence, in the example shown in FIG. 37B, a craps game is executed in which the gaming machines 1 allocated with the respective terminal numbers 001, 002, and 005 participate.

[1255] That is, when the auto bet amount data corresponding to one gaming machine is stored, the next craps game is executed in which the one gaming machine participates.

[1256] As described above, apiece of stored auto bet amount data corresponding to one gaming machine shows that the one gaming machine has the right to participate in the craps game.

[1257] When the shooter wins the craps game, the auto bet amount set for the craps game is maintained when the next craps game is executed (see FIG. 22A and FIG. 22B).

[1258] In this manner, the same auto bet amount is maintained until the shooter loses the craps game.

[1259] The main CPU 241 provided in the external control device 200 sets the auto bet amount indicated by the auto bet amount data to 0 in step S320 (in the end of the craps game) (see step S320 of FIG. 22B). That is, when the shooter loses a craps game, the auto bet amount set for the craps game is set to 0. Accordingly, when the shooter loses the craps game, the auto bet amount set for the craps game is not carried over to the next craps game. Further, the processing for determining the auto bet amount as the amount of payout is not executed in step S320 (in the end of the craps game) (see FIG. 22B). That is, when a series of craps games ends, the auto bet amount set for the last craps game in the series of craps games cannot be the amount of payout. Accordingly, the auto bet amount set for the last craps game of the series of craps games is not paid out to the player.

[1260] After transmitting a winning signal to the gaming machine 1 in step S309 of FIG. 22B, the main CPU 241 provided in the external control device 200 determines that the auto bet amount is the amount of payout (see step S311 to step S312 of the FIG. 22B). That is, when the shooter wins a craps game, the auto bet amount set for the craps game is set as the amount of payout. On the other hand, the main CPU 241 does not execute the processing of determining that the auto bet amount is the amount of payout, after transmitting a loss signal to the gaming machine 1 in step S322 of FIG. 22B. That is, when the shooter loses a craps game, the auto bet amount set for the craps game is not set as the amount of payout.

[1261] In this manner, when the shooter loses a craps game, the auto bet amount set for the craps game is not paid out to the player.

[1262] In the above, the fourth embodiment has been described with reference to FIG. 37A to FIG. 37B.

[1263] In the present embodiment, the amount of game media betted on the craps game is determined as the auto bet amount even when the player has not betted game media. However, the processing (C) in the invention of (27) is not limited to this example. For example, an input for betting game media may be accepted up to the upper limit amount (for example, 100) corresponding to the amount of game media (for example, 1000) accumulated.

[1264] Further, in the present embodiment, the amount of the game media to be betted on the craps game is determined based on the amount of individual bet (accumulated bet amount). However, the processing (C) in the invention of (27) is not limited to this example. For example, in the processing (C) in the invention of (27), the amount of game media to be betted on the common game may be determined based on the total amount of game media betted at each gaming machine.

[1265] According to the fourth embodiment of the present invention, the amount in accordance with the amount of game media betted in each of the gaming machines is accumulated. Then, the amount of game media (bet amount for craps game) to be betted on the craps game is determined based on the amount of game media thus accumulated. In the craps game, game media in an amount based on the bet amount for craps game thus determined and the result of the craps game is provided.

[1266] Accordingly, the amount of game media which may be provided in the craps game is increased along with the increase in the amount of game media stored by accumulation. Therefore, the player may be greatly interested in the amount of stored game media. On the other hand, the result of the craps game makes a difference in whether or not the player actually gets game media in an amount in accordance with the amount of stored game media. Therefore, the player may be glued on the craps game.

[1267] This makes the craps game more exciting.

[1268] Further, according to the fourth embodiment of the present invention, the amount in accordance with the amount of game media betted in each of the gaming machines is accumulated in association with that gaming machine. Then, the bet amount for craps game is determined with respect to each of the gaming machines, based on the accumulated bet amount corresponding to the amount of game media thus accumulated for each of the gaming machines.

[1269] Accordingly, the player can bet a larger amount of game media to increase the bet amount for craps game in the gaming machine on which he or she plays a game. As a result, a situation may be produced where he or she may get a larger amount of game media. Accordingly, it is possible to encourage the player to bet more game media.

[1270] In addition, the player having betted a larger amount of game media may have a stronger expectation for the good result that he or she desires in the craps game. Therefore, such players may be absorbed in the craps game.

[1271] Further, it is possible to give the players the competition with regard to the amount of game media that may be provided in the craps game. Accordingly, it is possible to provide the player who has received a larger amount of game media in the craps game with a strong satisfaction and a sense of superiority.

[1272] According to the fourth embodiment of the present invention, the amount of game media to be betted on the craps game is determined even when game media has not been betted.

[1273] Namely, the player can enjoy the craps game without further consuming game media. Accordingly, the player may be greatly satisfied with an occurrence of the craps game. In addition, since the player needs not to make an operation for placing a bet on the craps game, the player is allowed to concentrate on the craps game.

Mar. 17, 2011

## Fifth Embodiment

[1274] In a fifth embodiment, the inventions of (31) to (35) are described.

[1275] In the following, the same reference numerals are given to the components identical to the components of the gaming system 300 according to any of the above embodiments.

[1276] Descriptions are omitted for parts in the fifth embodiment to which descriptions in any of the above embodiments are applicable.

[1277] First, the outline of the fifth embodiment is described with reference to FIG. 38.

[1278] FIG. 38A and FIG. 38B are views illustrating an exemplary image displayed on the middle image display device included in the gaming machine according to the fifth embodiment of the present invention.

[1279] A character image 5320 shown in FIG. 38A notifies the player that he or she can participate in a craps game by placing an additional bet.

[1280] In the first embodiment, any of the gaming machines 1 with the individual bet amount equal to or more than the setting amount for participation is selected as a gaming machine participating in the craps game, and any of the gaming machines 1 with the individual bet amount less than the setting amount for participation cannot participate in the craps game (see FIG. 21).

[1281] In contrast, in the fifth embodiment, even a gaming machine 1 with the individual bet amount less than the setting amount for participation can participate in the craps game by placing an additional bet.

[1282] "The individual bet amount equal to or more than the setting amount for participation" corresponds to the specific condition in the present invention.

[1283] When an input for placing an additional bet is made in the gaming machine 1, the gaming machine 1 is selected as a gaming machine participating in the craps game, and a craps game start image 5340 is displayed on the lower image display panel 141 provided in the gaming machine 1 (FIG. 38B).

[1284] In the fifth embodiment, the player can input an additional bet by pressing the 1-bet button 34 or the maximum bet button 35. Each of the 1-bet button 34 and the maximum bet button 35 corresponds to the input device in the present invention.

[1285] Hereinbefore, the fifth embodiment has been summarized with reference to FIG. 38.

[1286] Hereinafter, the present embodiment is described in detail.

[1287] Next, with reference to FIG. 39A and FIG. 39B, participating determination processing (see step S259 of FIG. 18) is described.

[1288] FIG. 39A is a view illustrating a flowchart of the participation determination processing executed by the external control device according to the fifth embodiment of the present invention.

[1289] First, the main CPU 241 determines whether or not the individual bet amount corresponding to each of the gam-

ing machines other than the shooter gaming machine is equal to or more than the setting amount for participation (step \$5501).

[1290] When determining that the individual bet amount corresponding to each of the gaming machines other than the shooter gaming machine is not equal to or more than the setting amount for participation, the main CPU 241 transmits an additional bet request signal to the gaming machine 1 determined as not having the individual bet amount equal to or more than the setting amount for participation (step \$5303)

[1291] Here, the additional bet request signal includes the additional bet amount information showing the difference between the setting amount for participation and the individual bet amount of the gaming machine 1 as the transmission source of the additional bet request signal.

[1292] Next, the main CPU 241 determines whether or not it has received the additional bet signal from the gaming machine 1 to which the main CPU 241 has transmitted the additional bet request signal (step S5304). When the main CPU 241 determines that it has not received the additional bet signal, the main CPU 241 transmits a non-participant appointment signal to the gaming machine 1 from which the main CPU 241 has not received the additional bet signal (step S5305).

[1293] When the main CPU 241 determines in step S5301 that the individual bet amount corresponding to each of the gaming machines other than the shooter gaming machine is equal to or more than the setting amount for participation, or when the main CPU 241 determines in step S5304 that it has received the additional bet signal from the gaming machine 1 to which the main CPU 241 has transmitted the additional bet request signal, the main CPU 241 transmits a non-shooter appointment signal to the gaming machine 1 from which the main CPU 241 has received the additional bet signal or to the gaming machine 1 with the corresponding individual bet amount of equal to or more than the setting amount for participation (step S5302).

[1294] After executing step S5302 or step S5305, the main CPU 241 ends the present subroutine.

[1295] According to FIG. 39A, an additional bet request signal is always transmitted to the gaming machine 1 determined as not having the individual bet amount equal to or more than the setting amount for participation. However, the additional bet request signal does not need to be always transmitted, and may be transmitted only when a predetermined condition is satisfied. With reference to FIG. 39B, the participation determination processing (see step S259 of FIG. 18) is described in which the additional bet request signal is transmitted to the gaming machine 1 with the corresponding individual bet amount less than the setting amount for participation only when the number of gaming machines 1 with the corresponding individual bet amount equal to or more than the setting amount for participation is less than a predetermined number.

[1296] FIG. 39B is a view illustrating a flowchart of participation determination processing executed by the external control device according to another embodiment of the present invention.

[1297] First, the main CPU 241 executes the processing of step S5291 to step S5292. The processing is the same as the processing of step S291 to step S292 described with reference to FIG. 21, and thus the descriptions thereof are omitted here.

[1298] When determining in step S5291 that the individual bet amount corresponding to each of the gaming machines other than the shooter gaming machine is not equal to or more than the setting amount for participation, the main CPU 241 determines whether or not there are the predetermined number or more gaming machines 1 with the individual bet amount equal to or more than the setting amount for participation (step S5293).

[1299] When determining that there are the predetermined number or more gaming machines 1 with the individual bet amount equal to or more than the setting amount for participation, the main CPU 241 transmits a non-participant appointment signal to the gaming machine 1 determined as not having the individual bet amount equal to or more than the setting amount for participation (step S5297).

[1300] On the other hand, when determining that there are the predetermined number or more gaming machines 1 with the individual bet amount equal to or more than the setting amount for participation, the main CPU 241 transmits an additional bet request signal to the gaming machine 1 determined as not having the individual bet amount equal to or more than the setting amount for participation (step S5294). Here, the additional bet request signal includes the additional bet amount information showing the difference between the setting amount for participation and the individual bet amount of the gaming machine 1 as the transmission source of the additional bet request signal.

[1301] Next, the main CPU 241 determines whether or not it has received the additional bet signal from the gaming machine 1 to which the main CPU 241 has transmitted the additional bet request signal (step S5295). When the main CPU 241 determines that it has not received the additional bet signal, the main CPU 241 shifts the processing to step S5297. [1302] On the other hand, when the main CPU 241 determines that it has not received the additional bet signal, the main CPU 241 shifts the processing to step S5297.

mines that it has received the additional bet signal, the main CPU 241 executes the processing of transmitting a non-shooter appointment signal to the gaming machine 1 as the transmission source of the additional bet signal (step S5296).

[1303] After executing step S5292, step S5296, or step S5297, the main CPU 241 ends the present subroutine.

[1304] Next, craps-game occurrence signal reception processing is described with reference to FIG. 40.

[1305] FIG. 40 is a view illustrating a flowchart of the craps-game occurrence signal reception processing executed by the gaming machine according to the fifth embodiment of the present invention.

[1306] First, the main CPU 71 determines whether or not it has received the craps-game occurrence signal (see step S258 of FIG. 18) from the external control device 200 (step S5551). When the main CPU 71 determines that it has not received the craps-game occurrence signal, the main CPU 71 ends the present subroutine.

[1307] On the other hand, when the main CPU 71 determines that it has received the craps-game occurrence signal, the main CPU 71 determines whether or not it has received the additional bet request signal (see step S5294 of FIG. 39) (step S5555).

[1308] When the main CPU 71 determines that it has not received the additional bet request signal, the main CPU 71 shifts the processing to step S5552.

[1309] On the other hand, when the main CPU 71 determines that it has received the additional bet request signal, the main CPU 71 determines whether or not an input for an additional bet is made (step S5556). In this step, the main

CPU 71 determines whether or not it has received the signal transmitted upon pressing of the 1-bet button 34 or the signal transmitted upon pressing of the maximum bet button 35.

[1310] When determining that the input for an additional bet is not made, the main CPU 71 shifts the processing to step \$5552

[1311] On the other hand, when determining that the input for an additional bet is made, the main CPU 71 subtracts the value corresponding to the amount indicated by the additional bet amount information included in the additional bet request signal from the value stored in the amount-of-credit storage area provided in the RAM 73. Then, the main CPU 71 transmits the additional bet signal to the external control device 200 (step S5557). When determining that the value corresponding to the amount indicated by the additional bet amount information included in the additional bet request signal is larger than the value stored in the amount-of-credit storage area provided in the RAM 73, the main CPU 71 shifts the processing to step S5552.

[1312] Thereafter, the main CPU 71 executes the processing of step S5552 to step S5554. The processing is the same as the processing of step S552 to step S554 described with reference to FIG. 29, and thus the descriptions thereof are omitted here.

[1313] In the above, the fifth embodiment has been described with reference to FIG. 38 to FIG. 40.

[1314] In the present embodiment, both the normal bet and the additional bet can be placed via the input devices of the 1-bet button 34 and the maximum bet button 35. However, the normal-bet input device and the additional-bet input device may be different input devices in the present invention.

[1315] For example, an additional bet button as the additional-bet input device may be provided separately from the normal-bet button.

[1316] Alternatively, a touch panel may be adopted as the input device for an additional bet. For example, an additional bet may be placed by touching the touch panel on the place corresponding to the character "YES" illustrated in FIG. 38A.

[1317] Further, in the present embodiment, game media in an amount corresponding to the difference amount between the individual bet amount and the setting amount for participation is placed as an additional bet. However, in the present invention, the amount of game media to be placed as an additional bet is not limited to this example. For example, the amount of game media to be placed as an additional bet may be larger than the amount corresponding to the difference amount between the individual bet amount and the setting amount for participation (that is, the amount may be double the difference amount between the individual bet amount and the setting amount for participation, for example).

[1318] In the present embodiment, the player cannot select the amount of game media to be placed as an additional bet. However, a desired amount of game media may be inputted as an additional bet via the input device. In this case, it is preferable that only the gaming machine with the largest amount of game media as an additional bet, among the gaming machines at which an additional bet has been placed, can participate in the common game. This is because such a configuration encourages the player to bet a larger amount of game media as an additional bet.

[1319] In the present embodiment, the specific condition is that "the individual bet amount is equal to or more than the setting amount for participation". However, the specific condition in the present invention is not limited to this example.

The specific conditions in the present invention may be that "the individual bet amount ranks in the top N", or that "the cumulative number of games, cumulatively counted every time a game is executed, is equal to or more than a prescribed number", for example.

[1320] According to the fifth embodiment of the present invention, the condition for participation in the craps game is that the total amount of the betted game media (individual bet amount) is equal to or more than the predetermined amount (setting amount for participation).

[1321] It is highly possible that the individual bet amount has not reached the setting amount for participation in the gaming machine on which a game is played only for a short time. Such a gaming machine is less likely to satisfy the condition for participation in the craps game. In this regard, according to the fifth embodiment of the present invention, even a player playing a game only for short time can participate in the craps game by placing an additional bet. Accordingly, the player can start playing a game any time he or she wants.

[1322] According to the fifth embodiment of the present invention, a condition that the individual bet amount in any of the gaming machines has reached the event triggering amount is employed as the condition for craps game occurrence. The event triggering amount is larger than the setting amount for participation.

[1323] Namely, according to the fifth embodiment of the present invention, the gaming machine having the largest individual bet amount triggers an occurrence of the craps game. The player on the gaming machine having the individual bet amount that has reached the setting amount for participation is allowed to participate in the craps game without an additional bet, while the player on the gaming machine having the individual bet amount that is smaller than the setting amount for participation needs to place an additional bet to participate in the craps game.

[1324] Accordingly, an occurrence of the craps game, approval to participate in the craps game, and a need to place an additional bet are determined based on the individual bet amount. Therefore, it is possible to give the players a competition with regard to the amount of the individual bet amount, resulting in a more exciting game.

[1325] According to the fifth embodiment of the invention, only when the number of gaming machines satisfying the condition for participation in the craps game is equal to or smaller than the predetermined number, the player on the gaming machine not satisfying the condition for participation in the craps game is allowed to participate in the craps game by placing the additional bet.

[1326] Accordingly, when the number of gaming machines satisfying the condition for participation in the craps game is larger than the predetermined number, the player on the gaming machine not satisfying the condition for participation in the craps game cannot participate in the craps game. Therefore, it is possible to provide the player on the gaming machine satisfying the condition for participation in the craps game with a sense of superiority.

[1327] On the other hand, a craps game is more exciting when a certain number of people participate. Accordingly, when the number of gaming machines satisfying the condition for participation in the craps game is equal to or smaller than the predetermined number, the additional bet to participate in the craps game is encouraged so that the number of

gaming machines participating in the craps game is increased. As a result, it is possible to provide an active craps game.

[1328] According to the fifth embodiment of the present invention, when participation in the craps game is enabled by an additional bet, the upper image display panel provided in the gaming machine displays that an additional bet enables participation in the craps game, and the amount of game media required as the additional bet.

[1329] This allows the player to easily recognize the amount of game media required for participation in the craps game. The player can decide if the player should place an additional bet based on the amount of game media required as the additional bet in order to participate in the craps game, or should not place an additional bet and refrains from participating in the craps game.

## Sixth Embodiment

[1330] In a sixth embodiment, the inventions of (36) to (41) are described.

[1331] In the following, the same reference numerals are given to the components identical to the components of the gaming system 300 according to any of the above embodiments.

[1332] Descriptions are omitted for parts in the sixth embodiment to which descriptions in any of the above embodiments are applicable.

[1333] First, the outline of the sixth embodiment is described with reference to FIG. 41.

[1334] FIG. 41 is a conceptual view for explaining the outline of the present embodiment.

[1335] FIG. 41A is a view illustrating an exemplary image displayed on the lower image display panel 141 provided in the gaming machine 1.

[1336] FIG. 41A illustrates a state where a mode select image 6001 is displayed.

[1337] As illustrated in FIG. 41A, a mode selection button image 6001 includes an easy-mode selection button image 6210 and a professional-mode selection button image 6220.

[1338] In this manner, the common game (craps game) according to the present embodiment has the easy mode and the professional mode.

[1339] In the easy mode, only a bet of the auto bet amount is placed in the craps game. As described above, the auto bet amount is determined in accordance with the individual bet amount and set for the pass line bet in the gaming machine participating in the craps game.

[1340] On the other hand, in the professional mode, the player can place a bet of a bet amount different from the auto bet amount in the craps game.

[1341] Each of the easy mode and the professional mode correspond to the mode of the common game in the inventions of (36) to (41).

[1342] Here, the easy mode corresponds to the first mode in the inventions of (36) to (41). The professional mode corresponds to the second mode in the inventions of (36) to (41). Also, the pass line bet corresponds to the predetermined bet target in the inventions of (36) to (41).

[1343] FIG. 41B is a view illustrating an exemplary image displayed on the lower image display panel 141 provided in the gaming machine 1.

[1344] FIG. 41B shows the state where the easy-mode determination image 6002 is displayed.

[1345] The easy-mode determination image 6002 of FIG. 41B illustrates a state where the easy mode has been selected.

[1346] FIG. 41C is a view illustrating an exemplary image displayed on the lower image display panel 141 provided in the gaming machine 1.

[1347] FIG. 41C illustrates a state where the professional-mode determination image 6003 is displayed.

[1348] The professional-mode determination image 6003 of FIG. 41C illustrates a state where the professional mode has been selected.

[1349] FIG. 41D is a view illustrating an exemplary image displayed on the lower image display panel 141 provided in the gaming machine 1.

[1350] FIG. 41D illustrates a state where the professional-mode bet input image 6004 is displayed on the lower image display panel 141 provided in the gaming machine 1.

[1351] As illustrated in FIG. 41D, the professional-mode bet input image 6004 includes betting method selection images 6250 (come bet selection image 6250a, place bet selection image 6250b, and field bet selection image 6250c).

[1352] Here, how to bet in the craps game is described. Examples of the betting methods in the craps game, other than the pass line bet, include the come bet, the place bet, and the field bet

[1353] For example, the field bet is a betting method of betting on an outcome of 2, 3, 4, 9, 10, 11, or 12 when the shooter rolls dice. The field bet can be placed on the outcome of each roll of dice.

[1354] As illustrated in FIG. 41D, the player can select a "betting method such as the come bet, the place bet, and the field bet", i.e., a "different betting method from the pass line bet" when the professional mode is selected.

[1355] Note that the "different betting method from the pass line bet" (betting method such as the come bet, the place bet, and the field bet) corresponds to the specific bet target in (36) to (41).

[1356] In the present embodiment, the player can place a field bet of 200 (see FIG. 41D) in the following way. The player touches with a fingertip the touch panel 114 on the position corresponding to the position of a bet amount selection button image 6270c displayed on the lower image display panel 141, and moves his or her fingertip from the position on the touch panel 114, corresponding to the position of the bet amount selection button image 6270c, to the position on the touch panel 114 corresponding to the position of the field bet selection images 6250c while touching the touch panel 114.

[1357] An image 6005 of FIG. 41D illustrates a state where a field bet coin image 6100 is displayed on the display area of the bet table image 901. That is, the image 6005 of FIG. 41D illustrates a state where 200 is betted on the field bet.

[1358] FIG. 41E is a view illustrating an exemplary image displayed on the lower image display panel 141 provided in the gaming machine 1.

[1359] FIG. 41E also illustrates a state where the lower image display panel 141 provided in the gaming machine 1 displays a field bet winning image 6010 showing that the field bet is won and that a prize is to be paid out for the winning of the field bet.

[1360] Here, "the field bet is won" or "winning of field bet" means that "a bet has been placed on the field bet (e.g., 200 has been bet) and the outcome of the dice roll by the shooter (the outcome displayed by the dice images 905) is 2, 3, 4, 9, 10, 11, or 12". Further, as illustrated in the field bet winning image 6010 of FIG. 41E, a prize for winning of the field bet is paid out when the field bet is won.

[1361] Hereinbefore, the sixth embodiment has been summarized with reference to FIG. 41A to FIG. 41E.

[1362] Hereinafter, the present embodiment is further described in detail.

<Bet Amount Information Reception Processing>

[1363] With reference to FIG. 42, the bet amount information reception processing (see step S51 of FIG. 10) is described which is executed by the external control device 200 according to the sixth embodiment of the present invention.

[1364] FIG. 42 is a view illustrating a flowchart of the bet amount information reception processing executed by the external control device 200.

[1365] First, the main CPU 241 executes the processing of step S6001 to step S6009. The processing is the same as the processing of step S251 to step S259 of FIG. 18, and thus the descriptions thereof are omitted here.

[1366] After executing the processing of step S6009, the main CPU 241 executes mode selection processing (step S6010). The mode selection processing will be described later with reference to FIG. 43.

[1367] Next, the main CPU 241 executes the processing of step S6011 to step S6012. The processing is the same as the processing of step S260 to step S261 of FIG. 18, and thus the descriptions thereof are omitted here.

 $\cite{Model}$  After executing the processing of step S6012, the main CPU 241 ends the present subroutine.

[1369] As above, with reference to FIG. 42, the bet amount information reception processing has been described which is executed by the external control device 200 according to the sixth embodiment of the present invention.

#### <Mode Selection Processing>

[1370] With reference to FIG. 43, the mode selection processing is described which is executed by the external control device 200 according to the sixth embodiment of the present invention

[1371] FIG. 43 is a view illustrating a flowchart of the mode selection processing executed by the external control device 200.

[1372] First, the main CPU 241 transmits a mode selection signal to each participating gaming machine (step S6701).

[1373] When receiving the mode selection signal, each participating gaming machine displays the mode selection image for selection of the easy mode or the professional mode on the lower image display panel 141 provided therein (see FIG. 41A, and step S6201 to step S6202 of FIG. 46).

[1374] Next, the main CPU 241 determines whether or not it has received an easy-mode selection signal or a professional mode selection signal from every participating gaming machine (step S6702). Here, the easy-mode selection signal is transmitted from the gaming machine 1 when the player inputs a command to select the easy mode (see FIG. 41B and step S6209 of FIG. 46). Further, the professional mode selection signal is transmitted from the gaming machine 1 when the player inputs a command to select the professional mode (see FIG. 41C and step S6205 of FIG. 46).

[1375] When the main CPU 241 determines that it has not received the easy-mode selection signal or the professional-mode selection signal from every participating gaming machine, the main CPU 241 returns the processing to step S6702.

[1376] On the other hand, when the main CPU 241 determines that it has received the easy-mode selection signal or the professional-mode selection signal from every participating gaming machine, the main CPU 241 ends the present subroutine.

[1377] When receiving the easy-mode selection signal, the main CPU 241 determines that the gaming machine 1 as the transmission source of the easy-mode selection signal is an easy-mode-selecting gaming machine. Further, when receiving the professional-mode selection signal, the main CPU 241 determines that the gaming machine 1 as the transmission source of the professional-mode selection signal is a professional-mode-selecting gaming machine.

[1378] With reference to FIG. 43, the mode selection processing has been described which executed by the external control device 200 according to the sixth embodiment of the present invention.

<Shooter Appointment Signal Reception Processing>

[1379] With reference to FIG. 44, shooter appointment signal reception processing executed by the gaming machine 1 according to the sixth embodiment of the present invention is described.

[1380] FIG. 44 is a view illustrating a flowchart of the shooter appointment signal reception processing executed by the gaming machine 1.

[1381] Next, the main CPU 71 executes the processing of step S6101. The processing is the same as the processing of step S501 of FIG. 27, and thus the descriptions thereof are omitted here.

[1382] After the processing of step S6101, the main CPU 71 executes mode selection processing (step S6102).

[1383] The mode selection processing will be described later with reference to FIG. 46.

[1384] Next, the main CPU 71 executes the processing of step S6103. The processing is the same as the processing of step S502 of FIG. 27, and thus the descriptions thereof are omitted here.

[1385]  $\,$  After step S6103, the main CPU 71 ends the present subroutine.

[1386] In the above, with reference to FIG. 44, the shooter appointment signal reception processing has been described which is executed by the gaming machine 1 according to the sixth embodiment of the present invention.

<Craps Game Occurrence Signal Reception Processing>

[1387] With reference to FIG. 45, the craps game occurrence signal reception processing is described which is executed by the gaming machine 1 according to the sixth embodiment of the present invention.

[1388] FIG. 45 is a view of craps-game occurrence signal reception processing executed by the gaming machine 1.

[1389] The main CPU 71 executes the processing of step S6151 to step S6152 and step S6154 to step S6155. The processing is the same as the processing of step S551 to step S552 and step S553 to step S554 of FIG. 29, and thus the descriptions thereof are omitted here.

[1390] Accordingly, only step S6153 is described here.

[1391] In step S6153, the main CPU 71 executes the mode selection processing.

[1392] The mode selection processing will be described later with reference to FIG. 46.

[1393] In the above, with reference to FIG. 45, the craps game occurrence signal reception processing has been described which is executed by the gaming machine 1 according to the sixth embodiment of the present invention.

## <Mode Selection Processing>

[1394] With reference to FIG. 46, the mode selection processing is described which is executed by the gaming machine 1 according to the sixth embodiment of the present invention.

[1395] FIG. 46 is a view illustrating a flowchart of the mode selection processing executed by the gaming machine 1.

[1396] First, the main CPU 71 determines whether or not it has received the mode selection signal (step S6201). The mode selection signal is transmitted from the external control device 200 (step S6701 of FIG. 43).

[1397] When the main CPU 71 determines that it has not received the mode selection signal, the main CPU 71 returns the processing to step S6201. On the other hand, when the main CPU 71 determines that it has received the mode selection signal, the main CPU 71 executes the processing of displaying the mode selection image 6001 on the lower image display panel 141 (step S6202). The mode selection image 6001 has already been described with reference to FIG. 41A. [1398] After the processing of step S6202, the main CPU 71 determines whether or not it has received the professionalmode selection command signal from the touch panel 114 (step S6203). In the present embodiment, the touch panel 114 transmits the professional-mode selection command signal to the main CPU 71 when the player touches the touch panel 114 on the position corresponding to the position of the professional-mode selection button image 6220 displayed on the lower image display panel 141 (see FIG. 41C).

[1399] When the main CPU 71 determines that it has not received the professional-mode selection command signal, the main CPU 71 shifts the processing to step S6206. On the other hand, when the main CPU 71 determines that it has received the professional-mode selection command signal, the main CPU 71 sets a professional-mode flag (step S6204). [1400] After the processing of step S6204, the main CPU 71 transmits the professional-mode selection signal to the external control device 200 (step S6205).

[1401] After the processing of step S6205, the main CPU 71 ends the present subroutine.

[1402] In step S6206, the main CPU 71 determines whether or not it has received the easy-mode selection command signal from the touch panel 114 (step S6206). In the present embodiment, the touch panel 114 transmits the easy-mode selection command signal to the main CPU 71 when the player touches the touch panel 114 on the position corresponding to the position of the easy-mode selection button image 6210 displayed on the lower image display panel 141 (see FIG. 41B).

[1403] When the main CPU 71 determines that it has received the easy-mode selection command signal, the main CPU 71 shifts the processing to step S6208. On the other hand, when the main CPU 71 determines that it has not received the easy-mode selection command signal, the main CPU 71 shifts the processing to step S6207.

[1404] In step S6207, the main CPU 71 determines whether or not predetermined time has elapsed since execution of the processing of step S6202. When determining that predetermined time has not elapsed, the main CPU 71 shifts the processing to step S6203. On the other hand, when determin-

ing that predetermined time has elapsed, the main CPU 71 shifts the processing to step S6208.

[1405] In step S6208, the main CPU 71 sets the easy-mode flag.

[1406] After the processing of step S6208, the main CPU 71 transmits the easy-mode selection signal to the external control device 200 (step S6209).

[1407] After the processing of step S6209, the main CPU 71 ends the present subroutine.

[1408] With reference to FIG. 46, the mode selection processing has been described which is executed by the gaming machine 1 according to the sixth embodiment of the present invention.

#### <Craps Game-Related Processing>

[1409] With reference to FIG. 47, the craps game-related processing (see step S502 of FIG. 27 and step S553 of FIG. 29) is described which is executed by the gaming machine 1 according to the sixth embodiment of the present invention. [1410] FIG. 47 is a view illustrating a flowchart of the craps game-related processing executed by the gaming machine 1. [1411] The main CPU 71 executes the processing of step S6301 to step S6303. The processing is the same as the processing of step S521 to step S523 of FIG. 28, and thus the descriptions thereof are omitted here.

[1412] After the processing of step S6303, the main CPU 71 executes professional-mode bet input processing (step S6304). The professional-mode bet input processing will be described later with reference to FIG. 48.

[1413] Next, the main CPU 71 executes the processing of step S6305 to step S6308. The processing is the same as the processing of step S524 to step S527 of FIG. 28, and thus the descriptions thereof are omitted here.

[1414] In step S6309, the main CPU 71 determines whether or not the professional-mode flag is set. The professional-mode flag is set in the processing of step S6204 described with reference to FIG. 46.

[1415] When determining that the professional-mode flag is not set, the main CPU 71 shifts the processing to step S6311. On the other hand, when determining that the professional-mode flag is set, the main CPU 71 shifts the processing to step S6310.

[1416] In step S6310, the main CPU 71 determines whether or not it has received a signal showing the professional-mode game result. Here, the signal showing the professional-mode game result is transmitted from the external control device 200 (see step S6458 of FIG. 49).

[1417] The professional-mode game result is determined by the external control device 200 (see step 6457 of FIG. 49). Determination of the professional-mode game result is described later in step S6457 of FIG. 49.

[1418] When the main CPU 71 determines that it has not received the signal showing the professional-mode game result, the main CPU 71 returns the processing to step S6310. On the other hand, when the main CPU 71 determines that it has received the signal showing the professional-mode game result, the main CPU 71 shifts the processing to step S6311. [1419] Next, the main CPU 71 executes the processing of

step S6311 to step S6314. The processing is the same as the processing of step S528 to step S531 of FIG. 28, and thus the descriptions thereof are omitted here.

[1420] After the processing of step S6314, the main CPU 71 executes payout processing based on the easy mode (step S6315). In this processing, the main CPU 71 adds the amount

of payout indicated by the amount-of-payout information received from the external control device 200 in step S6313, to the value stored in the amount-of-credit storage area provided in the RAM 73.

[1421] After the processing of step S6315, the main CPU 71 executes the payout processing based on the professional mode (step S6316). In this processing, the main CPU 71 adds the amount of payout corresponding to the professional-mode game result received from the external control device 200 in step S6310, to the value stored in the amount-of-credit storage area provided in the RAM 73.

[1422] After the processing of step S6316, the main CPU 71 shifts the processing to step S6304.

[1423] When the main CPU 71 determines in step S6311 that it has not received the winning signal from the external control device 200, the main CPU 71 shifts the processing to step S6317.

[1424] The main CPU 71 executes the processing of step S6317 to step S6318. The processing is the same as the processing of step S533 to step S534 of FIG. 28, and thus the descriptions thereof are omitted here.

[1425] After the processing of step S6318, the main CPU 71 executes the payout processing based on the professional mode (step S6319). In this processing, the main CPU 71 adds the amount of payout corresponding to the professional-mode game result received from the external control device 200 in step S6310, to the value stored in the amount-of-credit storage area provided in the RAM 73.

[1426] After the processing of step S6319, the main CPU 71 ends the present subroutine.

[1427] When the main CPU 71 determines in step S6317 that it has not received the loss signal from the external control device 200, the main CPU 71 shifts the processing to step S6320.

[1428] The main CPU 71 executes the processing of step S6320 to step S6321. The processing is the same as the processing of step S535 to step S536 of FIG. 28, and thus the descriptions thereof are omitted here.

[1429] After the processing of step S6321, the main CPU 71 executes the payout processing based on the professional mode (step S6322). In this processing, the main CPU 71 adds the amount of payout corresponding to the professional-mode game result received from the external control device 200 in step S6320, to the value stored in the amount-of-credit storage area provided in the RAM 73.

[1430] After the processing of step S6322, the main CPU 71 shifts the processing to step S6304.

[1431] In the above, with reference to FIG. 47, the craps game-related processing has been described which is executed by the gaming machine 1 according to the sixth embodiment of the present invention.

<Input Processing of Professional-Mode Bet>

[1432] With reference to FIG. 48, the bet input processing of professional-mode bet (see step S6304 of FIG. 47) is described which is executed by the gaming machine 1 according to the sixth embodiment of the present invention.

[1433] FIG. 48 is a view illustrating a flowchart of the input processing of professional-mode bet executed by the gaming machine 1.

[1434] The main CPU 71 determines whether or not the professional-mode flag is set (step S6721). The professional-mode flag is set in the processing of step S6204 described with reference to FIG. 46.

[1435] When determining that the professional-mode flag is not set, the main CPU 71 ends the present subroutine. On the other hand, when determining that the professional-mode flag is set, the main CPU 71 shifts the processing to step S6722.

[1436] In step S6722, the main CPU 71 executes the processing of displaying an input image of professional-mode bet on the lower image display panel 141.

[1437] In the present embodiment, the professional-mode bet input image 6004 is displayed on the lower image display panel 141 (see FIG. 41D).

[1438] Next, the main CPU 71 determines whether or not it has received the professional-mode bet command signal from the touch panel 114 (step S6723)

[1439] Here, the professional-mode bet command signal is transmitted from the touch panel 114 to the main CPU 71 (see FIG. 41D) for example in the following case. That is, the player "touches with a fingertip the touch panel 114 on the position corresponding to the position of the bet amount selection button image 6270c displayed on the lower image display panel 141, and moves his or her fingertip to the position (position A) on the touch panel 114 corresponding to the position of the field bet selection image 6250c while touching the touch panel 114". Then, the player "removes his or her fingertip from the touch panel 114 at the position A". In this example, the professional-mode bet command signal includes information showing the bet amount (200) corresponding to the bet amount selection button image 6270c (hereinafter, also referred to as 200-bet command information) and information showing the betting method (field bet) corresponding to the field bet selection image 6250c (hereinafter, also referred to as field bet command information).

[1440] Hereinafter, the information showing the bet amount is also referred to as bet amount command information. Further, the information showing the betting method is also referred to as betting method command information.

[1441] The bet amount command information in the present embodiment includes information showing the bet amount (10) corresponding to the bet amount selection button image 6270a (hereinafter also referred to as 10-bet command information), information showing the bet amount (50) corresponding to the bet amount selection button image 6270b (hereinafter also referred to as 50-bet command information), and information showing the bet amount (200) corresponding to the bet amount selection button image 6270c (hereinafter also referred to as 200-bet command information).

[1442] Further, the betting method command information in the present embodiment includes information showing the betting method (come bet) corresponding to the come bet selection image 6250a (hereinafter also referred to as comebet command information), information showing the betting method (place bet) corresponding to the place bet selection image 6250b (hereinafter also referred to as place-bet command information), and information showing the betting method (field bet) corresponding to the field-bet selection image 6250c (hereinafter also referred to as field-bet command information).

[1443] When the main CPU 71 determines in step S6723 that it has received the professional-mode bet command signal, the main CPU 71 shifts the processing to step S6725.

[1444] When the bet amount command information included in the processional-mode bet command signal is 10-bet command information in the processing, the main CPU 71 adds 10 to the value stored in the bet amount storage

area provided in the RAM 73, and subtracts 10 from the value stored in the amount-of-credit storage area. In this manner, when the professional-mode bet command signal is received in the processing, the main CPU 71 makes addition to the value stored in the bet amount storage area provided in the RAM 73, and makes subtraction from the value stored in the amount-of-credit storage area.

[1445] When the main CPU 71 determines instep S6723 that it has not received the professional-mode bet command signal, the main CPU 71 shifts the processing to step S6724. [1446] In step S6724, the main CPU 71 determines whether or not predetermined time has elapsed since execution of the processing of step S6722. When determining that predetermined time has not elapsed, the main CPU 71 shifts the processing to step S6723. On the other hand, when determining that predetermined time has elapsed, the main CPU 71 ends the present subroutine.

[1447] In step S6725, the main CPU 71 transmits the professional-mode bet information to the external control device 200

[1448] Here, the professional-mode bet information includes information shown by the professional-mode bet command signal that the main CPU 71 has received from the touch panel 114 in step S6723. For example, when the professional-mode bet command signal received by the main CPU 71 in step S6723 includes the 200-bet command information and the field bet command information, the professional-mode bet information transmitted to the external control device 200 in step S6725 includes the information showing that the bet amount is 200 and that the betting method is the field bet.

[1449] After the processing of step S6725, the main CPU 71 ends the present subroutine.

[1450] In the above, with reference to FIG. 48, the professional-mode bet input processing has been described which is executed by the gaming machine 1 according to the sixth embodiment of the present invention.

## <Craps Game Execution Processing>

[1451] With reference to FIG. 49, the craps game execution processing (see step S260 of FIG. 18) is described which is executed by the external control device 200 according to the sixth embodiment of the present invention.

[1452] FIG. 49 is a view illustrating a flowchart of the craps game execution processing executed by the external control device 200.

[1453] The main CPU 241 executes the processing of step S6451 to step S6453. The processing is the same as the processing of step S301 to step S303 of FIG. 22A, and thus the descriptions thereof are omitted here.

[1454] After the processing of step S6453, the main CPU 241 receives the professional-mode bet information from the gaming machine (step S6454). The professional-mode bet information is information transmitted from the professional-mode-selecting gaming machine (see the step S6725 of FIG. 48).

[1455] Next, the main CPU 241 executes the processing of step S6455 to step S6456. The processing is the same as the processing of step S304 to step S305 of FIG. 22A, and thus the descriptions thereof are omitted here.

[1456] After the processing of step S6456, the main CPU 241 determines the professional-mode game result based on the game program stored in the ROM 242 and the random value for craps game extracted in step S6456, for each gaming

machine as the transmission source of the professional-mode bet information (step S6457). The game program is a program for determining the result of a craps game based on the craps game rules.

[1457] Here, the case is described in which the main CPU 241 determines the professional-mode game result for each gaming machine as a transmission source of "professional-mode bet information showing that the main CPU 71 has received the professional-mode command signal including 200-bet command information and field-bet command information from the external control device 200 (see step S6723 of FIG. 48)".

[1458] In the processing, the outcome of the roll of dice is determined based on the random value for craps game extracted in step S6456. If the determined outcome is 2, 3, 4, 9, 10, 11, or 12, the professional-mode game result is winning of the field bet.

[1459] The professional-mode game result corresponds to the result of a common game in the inventions of (36) to (41). [1460] Next, the main CPU 241 transmits the professional-mode game result determined in step S6457, to each gaming machine as the transmission source of the professional-mode bet information (step S6458).

[1461] Next, the main CPU 241 executes the processing of step S6459. The processing is the same as the processing of step S306 of FIG. 22A, and thus the descriptions thereof are omitted here.

[1462] In the above, with reference to FIG. 49, the craps game execution processing has been described which is executed by the external control device 200 according to the sixth embodiment of the present invention.

## < Auto-Bet Amount Determination Processing>

[1463] With reference to FIG. 50, the auto-bet amount determination processing (see step S301 of FIG. 22A) is described which is executed by the external control device 200 according to the sixth embodiment of the present invention.

[1464] FIG. 50 is a view illustrating a flowchart of the auto-bet amount determination processing executed by the external control device 200.

[1465] The main CPU 241 executes the processing of step S6501 to step S6502. The processing is the same as the processing of step S341 to step S342 of FIG. 23, and thus the descriptions thereof are omitted here.

[1466] After executing the processing of step S6502, the main CPU 241 executes determination processing of distribution amount in each mode (step S6503). The determination processing of distribution amount in each mode will be described later with reference to FIG. 51A.

[1467] Next, the main CPU 241 executes the processing of step S6514. The processing is the same as the processing of step S343 of FIG. 23, and thus the descriptions thereof are omitted here.

[1468] Next, the main CPU 241 calculates the special bet amount for shooter, based on the degree of contribution calculated in step S6504 (step S6505). As described in step S344 of FIG. 23, the special bet amount for shooter refers to the bet amount specially set only for the shooter gaming machine.

[1469] Here, with reference to FIG. 51B, calculation of the special bet amount for shooter is described.

[1470] In the example shown in FIG. 51B, the degree of contribution corresponding to the gaming machine allocated with the terminal number 002 is 100%. The professional-

mode distribution amount corresponding to the gaming machine allocated with the terminal number **002** is 16000.

[1471] In this example, the amount calculated by multiplying the professional-mode distribution amount (16000) by the degree of contribution (100%), i.e., 16000, is calculated as the special bet amount for shooter. In this manner, if the shooter gaming machine is a professional-mode-selecting gaming machine in the present embodiment, the special bet amount for shooter can be determined by multiplying the professional-mode distribution amount determined in step S6603 of FIG. 51A by the degree of contribution calculated in step S6504

[1472] On the other hand, if the shooter gaming machine is an easy-mode-selecting gaming machine, the special bet amount for shooter can be determined by multiplying the easy-mode distribution amount determined in step S6604 of FIG. 51A by the degree of contribution calculated in step S6504 (see FIG. 51B).

[1473] The professional-mode distribution amount and the easy-mode distribution amount will be described later with reference to FIG. 51A.

[1474] Next, the main CPU 241 executes the processing of step S6506. The processing is the same as the processing of step S345 of FIG. 23, and thus the descriptions thereof are omitted here.

[1475] After executing the processing of step S6506, the main CPU 241 ends the present subroutine.

[1476] As above, with reference to FIG. 50, the auto-bet amount determination processing has been described which is executed by the external control device 200 according to the sixth embodiment of the present invention.

<Determination Processing of Distribution Amount in Each Mode>

[1477] With reference to FIG. 51A, the determination processing of distribution amount in each mode is described which is executed by the external control device 200 according to the sixth embodiment of the present invention.

[1478] FIG. 51A is a view illustrating determination processing of distribution amount in each mode executed by the external control device 200.

[1479] The main CPU 241 determines the number of gaming machines determined as the professional-mode-selecting gaming machine in step S6702 of FIG. 43 (step S6601).

[1480] Next, the main CPU 241 determines a professional-mode distribution rate (step S6602). In the present embodiment, the value resulting from dividing the number of professional-mode-selecting gaming machines by the number of participating gaming machines is determined as a professional-mode distribution rate.

[1481] Here, the professional-mode distribution rate is described with reference to FIG. 51B.

[1482] In the example shown in FIG. 51B, the professional-mode-selecting gaming machines are allocated with the terminal numbers 001 and 002. The participating gaming machines are of the terminal numbers 001 to 005. In this case, the number of professional-mode selecting gaming machines is 2. The number of participating gaming machines is 5. Therefore, the professional-mode distribution rate in this case is the value resulting from dividing 2 by 5, that is, 0.4.

[1483] After the processing of step S6602, the main CPU 241 determines a professional-mode distribution amount (step S6603). In the present embodiment, the amount resulting from multiplying the total bonus amount by the profes-

sional-mode distribution rate determined in step S6602 is determined as the professional-mode distribution amount.

[1484] Here, the professional-mode distribution amount is described with reference to FIG. 51B.

[1485] In the example shown in FIG. 51B, the total bonus amount is 40000. Therefore, the professional-mode distribution amount in this case is the amount resulting from multiplying 40000 by the professional-mode distribution rate 0.4, that is, 16000.

[1486] After the processing of step S6603, the main CPU 241 determines an easy-mode distribution amount (step S6604). In the present embodiment, the amount resulting from subtracting the professional-mode distribution amount from the total bonus amount determined in step S6603 is determined as an easy-mode distribution amount.

[1487] Here, the easy-mode distribution amount is described with reference to FIG. 51B.

[1488] In the example shown in FIG. 51B, the total bonus amount is 40000. Accordingly, the easy-mode distribution amount in this case is the amount resulting from subtracting the professional-mode distribution amount 16000 from 40000, that is, 24000.

[1489] After the processing of step S6604, the main CPU 241 ends the present subroutine.

[1490] As above, with reference to FIG. 51A, the determination processing of distribution amount in each mode has been described which is executed by the external control device 200 according to the sixth embodiment of the present invention.

[1491] In the above, one example of the sixth embodiment of the present invention has been described with reference to FIG. 41 to FIG. 51. In this example, the minimum number of participants is not set for each mode in the processing (c) in the inventions of (37) and (40).

[1492] However, the processing (c) in the inventions of (37) and (40) is not limited to this example. That is, the minimum number of participants may be set for each mode in the processing (c) in the inventions of (37) and (40).

[1493] Hereinafter, with reference to FIG. 52A and FIG. 52B, the example will be described in which the minimum number of participants is set for each mode of the common game.

<Mode Selection Processing>

[1494] With reference to FIG. 52A, the mode selection processing is described which is executed by the external control device 200 according to another embodiment of the present invention.

[1495] FIG. 52A is a view illustrating a flowchart of the mode selection processing executed by the external control device 200.

[1496] First, the main CPU 241 determines whether or not the number N of participating gaming machines is equal to or more than a predetermined number (step S6051). When determining that the number N of participating gaming machines is equal to or more than the predetermined number, the main CPU 241 shifts the processing to step S6052. On the other hand, when determining that the number N of participating gaming machines is not equal to or more than the predetermined number, the main CPU 241 transmits an easy-mode forcing signal to the participating gaming machines (step S6066). In this processing, the main CPU 241 determines that

the participating gaming machine as the transmission destination of the easy-mode forcing signal is an easy-modeselecting gaming machine.

[1497] When the gaming machine 1 has received the easy-mode forcing signal, the main CPU 71 of the gaming machine 1 sets an easy-mode flag (see step S6760 to step S6761 of FIG. 52B).

[1498] After the processing of step S6066, the main CPU 241 ends the present subroutine.

[1499] In step S6052, the main CPU 241 executes the processing of setting the mode selection order M to 1 in the RAM 243. The mode selection order M is a value which associates the transmission order of a mode selection signal with the order of the individual bet amount. The mode selection order M is described in detail with reference to step S6053.

[1500] Next, the main CPU 241 transmits the mode selection signal to the participating gaming machine corresponding to the  $M^{th}$  largest individual bet amount (step S6053). For example, when the mode selection order M is set to 1, the mode selection signal is transmitted to the participating gaming machine with the largest individual bet amount. Then, 1 is added to the mode selection order M (see step S6059 and the step S6065). As a result of addition of 1 to the mode selection order M (=1), the mode selection order M is set to 2. Subsequently, the mode selection signal is transmitted to the participating gaming machine with the second largest individual bet amount (step S6033). In this way, the transmission order of the mode selection signal and the order of individual bet amount are associated in the present embodiment.

[1501] When the participating gaming machines receive the mode selection signal, the lower image display panel 141 of each of the participating gaming machine displays the mode selection image for selecting the easy mode or the professional mode (see FIG. 41A and step S6201 to step S6202 of FIG. 46).

[1502] Next, the main CPU 241 determines whether or not it has received the professional-mode selection signal (step S6054). The professional-mode selection signal is transmitted from the gaming machine 1 when the player makes a command to select the professional mode (see FIG. 41C and step S6205 of FIG. 46).

[1503] When the main CPU 241 determines that it has not received the professional-mode selection signal, the main CPU 241 shifts the processing to step S6060.

[1504] On the other hand, when the main CPU 241 determines that it has received the professional-mode selection signal, the mail CPU 241 shifts the processing to step S6055. Note that the main CPU 241 determines that the gaming machine 1 as the transmission source of the professional-mode selection signal is a professional-mode-selecting gaming machine, when the main CPU 241 determines that it has received the professional-mode selection signal.

[1505] In step S6055, the main CPU 241 adds 1 to the number  $N_{\mathcal{P}}$  of professional-mode-selecting gaming machines in the RAM 243.

[1506] Next, the main CPU 241 determines whether or not a number resulting from subtracting the number  $N_{\mathcal{P}}$  of professional-mode-selecting gaming machines from the number N of participating gaming machines is equal to the a minimum number L of participants (step S6056). The minimum number L of participants is the lower limit of the number of gaming machines which participate in one mode. In the present embodiment, the easy mode or the professional mode is also referred to simply as a mode.

[1507] In the present embodiment, the minimum number L of participants is 3. That is, in the present embodiment, the lower limit of the number of gaming machines participating in one mode is set to 3.

[1508] When determining that the number resulting from subtracting the number  $N_P$  of professional-mode-selecting gaming machines from the number N of participating gaming machines is equal to the minimum number L of participants, the main CPU 241 shifts the processing to step S6057. On the other hand, when determining that the number resulting from subtracting the number N<sub>P</sub> of professional-mode-selecting gaming machines from the number N of participating gaming machines is not equal to the minimum number L of participants, the main CPU 241 shifts the processing to step S6058. [1509] In step S6058, the main CPU 241 determines whether or not the mode selection order M and the number N of participating gaming machines are equal. When determining that the mode selection order M and the number N of participating gaming machines are equal, the main CPU 241 ends the present subroutine. On the other hand, when determining that the mode selection order M and the number N of participating gaming machines are not equal, the main CPU **241** adds 1 to the mode selection order M (step S6059).

[1510] After the processing of step S6059, the main CPU 241 shifts the processing to step S6053.

[1511] In step S6057, the main CPU 241 transmits the easy-mode forcing signal to a no-mode-selecting gaming machine.

[1512] In the present embodiment, the no-mode-selecting gaming machine is a participating gaming machine which is not determined as neither the professional-mode-selecting gaming machine nor the easy-mode selecting gaming machine. In the processing, the main CPU 241 determines that the no-mode-selecting gaming machine as the transmission destination of the easy-mode forcing signal is an easy-mode-selecting gaming machine.

[1513] After the processing of step S6057, the main CPU 241 ends the present subroutine.

[1514] In step S6060, the main CPU 241 determines whether or not it has received the easy-mode selection signal. The easy-mode selection signal is transmitted from the gaming machine 1 when the player makes a command to select the easy mode (see FIG. 41B and step S6209 of FIG. 46).

[1515] When the main CPU 241 determines that it has not received the easy-mode selection signal, the main CPU 241 shifts the processing to step S6054.

[1516] On the other hand, when the main CPU 241 determines that it has received the easy-mode selection signal, the main CPU 241 shifts the processing to step S6061. Note that the main CPU 241 determines that the gaming machine 1 as the transmission source of the easy-mode selection signal is an easy-mode-selecting gaming machine, when the main CPU 241 determines that it has received the easy-mode selection signal.

[1517] In step S6061, the main CPU 241 adds 1 to the number  $N_{\rm E}$  of easy-mode selecting gaming machines in the RAM 243.

[1518] Next, the main CPU 241 determines whether or not a number resulting from subtracting the number  $N_E$  of easy-mode-selecting gaming machines from the number N of participating gaming machines is equal to the a minimum number L of participants (step S60152).

[1519] When determining that the number resulting from subtracting the number  $N_E$  of easy-mode-selecting gaming

machines from the number N of participating gaming machines is equal to the minimum number L of participants, the main CPU 241 shifts the processing to step S6063. On the other hand, when determining that the number resulting from subtracting the number  $N_E$  of easy-mode-selecting gaming machines from the number N of participating gaming machines is not equal to the minimum number L of participants, the main CPU 241 shifts the processing to step S6064. [1520] In step S6064, the main CPU 241 determines whether or not the mode selection order M and the number N of participating gaming machines are equal. When determining that the mode selection order M and the number N of participating gaming machines are equal, the main CPU 241 ends the present subroutine. On the other hand, when determining that the mode selection order M and the number N of participating gaming machines are not equal, the main CPU 241 adds 1 to the mode selection order M (step S6065).

[1521] After the processing of step S6065, the main CPU 241 shifts the processing to step S6053.

[1522] In step S6063, the main CPU 241 transmits the professional-mode forcing signal to each no-mode-selecting gaming machine. In the processing, the main CPU 241 determines that the no-mode-selecting gaming machine as the transmission destination of the professional-mode forcing signal is a professional-mode-selecting gaming machine.

[1523] When the gaming machine 1 has received the professional-mode forcing signal, the main CPU 71 of the gaming machine 1 sets a professional-mode flag (see step S6762 to step S6763 of FIG. 52B).

[1524] After the processing of step S6063, the main CPU 241 ends the present subroutine.

[1525] With reference to FIG. 52A, the mode selection processing has been described which is executed by the external control device 200 according to the another embodiment of the present invention.

#### <Mode Selection Processing>

[1526] Now, with reference to FIG. 52B, the mode selection processing is described which is executed by the gaming machine 1 according to the another embodiment of the present invention.

[1527] FIG. 52B is a view illustrating a flowchart of the mode selection processing executed by the gaming machine 1.

[1528] First, the main CPU 71 determines whether or not it has received the mode selection signal (step S6751). The mode selection signal is a signal transmitted from the external control device 200 (step S6053 of FIG. 52A).

[1529] When the main CPU 71 determines that it has not received the mode selection signal, the main CPU 71 shifts the processing to step S6760. On the other hand, when the main CPU 71 determines that it has received the mode selection signal, the main CPU 71 executes the processing of displaying the mode selection image 6001 on the lower image display panel 141 (step S6752). The mode selection image 6001 has already been described with reference to FIG. 41A. [1530] After the processing of step S6752, the main CPU 71 determines whether or not it has received the professional-mode selection command signal from the touch panel 114 (step S6753). In the present embodiment, when the player touches the touch panel 114 on the position corresponding to the position of the professional-mode selection button image 6220 displayed on the lower image display panel 141, the

touch panel 114 transmits a professional-mode selection command signal to the main CPU 71 (see FIG. 41C).

[1531] When the main CPU 71 determines that it has not received the professional-mode selection command signal, the main CPU 71 shifts the processing to step S6756. On the other hand, when the main CPU 71 determines that it has received the professional-mode selection command signal, the main CPU 71 sets a professional-mode flag (step S6754). [1532] After the processing of step S6754, the main CPU 71 transmits the professional-mode selection signal to the external control device 200 (step S6755).

[1533] After the processing of step S6755, the main CPU 71 ends the present subroutine.

[1534] In step S6756, the main CPU 71 determines whether or not it has received the easy-mode selection command signal from the touch panel 114. In the present embodiment, when the player touches the touch panel 114 on the position corresponding to the position of the easy-mode selection button image 6210 displayed on the lower image display panel 141, the touch panel 114 transmits an easy-mode selection command signal to the main CPU 71 (see FIG. 41B).

[1535] When the main CPU 71 determines that it has received the easy-mode selection command signal, the main CPU 71 shifts the processing to step S6758. On the other hand, when the main CPU 71 determines that it has not received the easy-mode selection command signal, the main CPU 71 shifts the processing to step S6757.

[1536] In step S6757, the main CPU 71 determines whether or not predetermined time has elapsed since execution of the processing of step S6752. When determining that predetermined time has not elapsed, the main CPU 71 shifts the processing to step S6753. On the other hand, when determining that predetermined time has elapsed, the main CPU 71 shifts the processing to step S6758.

[1537] In step S6758, the main CPU 71 sets the easy-mode flag.

[1538] After the processing of step S6758, the main CPU 71 transmits the easy-mode selection signal to the external control device 200 (step S6759).

[1539] After the processing of step S6759, the main CPU 71 ends the present subroutine.

[1540] In step S6760, the main CPU 71 determines whether or not it has received the easy-mode forcing signal. The easy-mode forcing signal is transmitted from the external control device 200 (see step S6057 and step S6066 of FIG. 52A).

[1541] When the main CPU 71 determines that it has not received the easy-mode forcing signal, the main CPU 71 shifts the processing to step S6762. On the other hand, when the main CPU 71 determines that it has received the easy-mode forcing signal, the main CPU 71 sets an easy-mode flag (step S6761).

[1542] After the processing of step S6761, the main CPU 71 ends the present subroutine.

[1543] In step S6762, the main CPU 71 determines whether or not it has received a professional-mode forcing signal. The professional-mode forcing signal is transmitted from the external control device 200 (step S6063 of FIG. 52A).

[1544] When the main CPU 71 determines that it has not received the professional-mode forcing signal, the main CPU 71 shifts the processing to step S6751. On the other hand, when the main CPU 71 determines that it has received the professional-mode forcing signal, the main CPU 71 sets a professional-mode flag (step S6763).

[1545] After the processing of step S6763, the main CPU 71 ends the present subroutine.

[1546] With reference to FIG. 52B, the mode selection processing has been described which is executed by the gaming machine 1 according to the another embodiment of the present invention.

[1547] In the above, an example of the present invention have been described with reference to FIG. 41 to FIG. 52B. In this example, the betting method and the bet amount are selected by the player at the same timing in the processing (b-1) in (39) (see FIG. 41D and step S6723 of FIG. 48). However, the processing (b-1) in (39) is not limited to this case. That is, the betting method and the bet amount may be selected by the player at different timings in the processing (b-1) in (39).

[1548] In the following, a case will be described in which the betting method and the bet amount are selected by the player at different timings, with reference to FIG. 52C.

<Professional-Mode Bet Input Processing>

[1549] With reference to FIG. 52C, the professional-mode bet input processing (see step S6304 of FIG. 47) is described which is executed by the gaming machine 1 according to another embodiment of the present invention.

[1550] FIG. 52C is a view illustrating the professional-mode bet input processing executed by the gaming machine

[1551] The main CPU 71 determines whether or not the professional-mode flag is set (step S6401). The professional-mode flag is set in the processing of step S6754 or step S6763 described with reference to FIG. 52B.

[1552] When determining that the professional-mode flag is not set, the main CPU 71 ends the present subroutine. On the other hand, when determining that the professional-mode flag is set, the main CPU 71 shifts the processing to step S6402.

[1553] In step S6402, the main CPU 71 executes the processing of displaying the professional-mode bet input image on the lower image display panel 141. In the present embodiment, the professional-mode bet input image 6004 is displayed as the professional-mode bet input image on the lower image display panel 141 (see FIG. 410).

[1554] Next, the main CPU 71 determines whether or not it has received the betting method command information from the touch panel 114 (step S6403).

[1555] In the present embodiment, when the player touches the touch panel 114 on the position corresponding to the position of the field bet selection image 6250c displayed on the lower image display panel 141, the touch panel 114 transmits the betting method command information corresponding to the field bet selection image 6250c to the main CPU 71 (see FIG. 41D).

[1556] The betting method command information in the present embodiment includes information showing the betting method (come bet) corresponding to the come bet selection image 6250a (hereinafter also referred to as come-bet command information), information showing the betting method (place bet) corresponding to the place bet selection image 6250b (hereinafter also referred to as place-bet command information), and information showing the betting method (field bet) corresponding to the field-bet selection image 6250c (hereinafter also referred to as field-bet command information).

[1557] When the main CPU 71 determines instep S6403 that it has received the betting method command information, the main CPU 71 sets a reception completion flag for the betting method command information and shifts the processing to step S6406. In the present embodiment, the reception completion flag for the betting method command information includes a reception completion flag for the come-bet command information, a reception completion flag for the place-bet command information, and a reception completion flag for the field-bet command information.

[1558] On the other hand, when the main CPU 71 determines that it has not received the betting method command information, the main CPU 71 shifts the processing to step S6404.

[1559] In step S6404, the main CPU 71 determines whether or not predetermined time has elapsed since execution of the processing of step S6402. When determining that predetermined time has not elapsed, the main CPU 71 shifts the processing to step S6403. On the other hand, when determining that predetermined time has elapsed, the main CPU 71 sets a reception completion flag for the field-bet command information and shifts the processing to step S6406.

[1560] In step S6406, the main CPU 71 determines whether or not it has received the bet amount command information from the touch panel 114 (step S6406).

[1561] In the present embodiment, when the player touches the touch panel 114 on the position corresponding to the position of the bet amount selection button 6270c displayed on the lower image display panel 141, the touch panel 114 transmits information showing the bet amount (200) corresponding to the bet amount selection button image 6270c to the main CPU 71 (see FIG. 41F).

[1562] The bet amount command information in the present embodiment includes information showing the bet amount (10) corresponding to the bet amount selection button image 6270a (hereinafter also referred to as 10-bet command information), information showing the bet amount (50) corresponding to the bet amount selection button image 6270b (hereinafter also referred to as 50-bet command information), and information showing the bet amount (200) corresponding to the bet amount selection button image 6270c (hereinafter also referred to as 200-bet command information).

[1563] When the main CPU 71 determines in step S6406 that it has received the bet amount command information, the main CPU 71 sets the reception completion flag for the bet amount command information and shifts the processing to step S6409. In the present embodiment, the reception completion flag for the bet amount command information includes a reception completion flag for the 10-bet command information, a reception completion flag for the 50-bet command information, and a reception completion flag for the 200-bet command information.

[1564] When the reception completion flag for the 10-bet command information is set in the processing, the main CPU 71 adds 10 to the value stored in the bet amount storage area provided in the RAM 73, and subtracts 10 from the value stored in the amount-of-credit storage area. In this manner, when the reception completion flag for the bet amount command information is set in the processing, the main CPU 71 makes addition to the value stored in the bet amount storage area provided in the RAM 73, and makes subtraction from the value stored in the amount-of-credit storage area.

[1565] On the other hand, when the main CPU 71 determines that it has not received the bet amount command information, the main CPU 71 shifts the processing to step S6407.
[1566] In step S6407, the main CPU 71 determines whether or not predetermined time has elapsed since setting the reception completion flag for the betting method command information in step S6403 or step S6405. When determining that the predetermined time has not elapsed, the main CPU 71 shifts the processing to step S6406.

[1567] On the other hand, when determining that the predetermined time has elapsed, the main CPU 71 sets the reception completion flag for the 200-bet command information (step S6408). After the processing of step S6407, the main CPU 71 shifts the processing to step S6409.

[1568] In step S6409, the main CPU 71 transmits the professional-mode bet information to the external control device 200

[1569] The professional-mode bet information includes information showing the reception completion flag for the betting method command information having been set in step S6403 or step S6405. For example, when the reception completion flag for the field-bet command information is set in step S6403 or step S6405, the professional-mode bet information includes the information showing that the reception completion flag for the field-bet command information has been set.

[1570] The professional-mode bet information also includes information showing the reception completion flag for the bet amount command information having been set in step S6406 or step S6408. For example, when the reception completion flag for the 200-bet command information is set in step S6404 or step S6408, the professional-mode bet information includes the information showing that the reception completion flag for the 200-bet command information has been set.

[1571] After the processing of step S6409, the main CPU 71 ends the present subroutine.

[1572] With reference to FIG. 52C, the professional-mode bet input processing has been described which is executed by the gaming machine 1 according to the other embodiment of the present invention.

[1573] In the above, the sixth embodiment has been described with reference to FIG. 41 to FIG. 52.

[1574] In the present embodiment, the mode of the common game in the inventions of (36) to (41) includes two modes, namely the easy mode and the professional mode. However, the number of the modes of the common game in the inventions of (36) to (41) is not limited to two. That is, the modes of the common game in the inventions of (36) to (41) may include a third mode different from the easy mode and the professional mode.

[1575] In the present embodiment, the specific bet target in the inventions of (36) to (41) is a "different betting method from the pass line bet" (betting methods such as the come bet, the place bet, and the field bet). However, the specific bet target in the inventions of (36) to (41) is not limited to this example. That is, the specific bet target in (36) to (41) may be a betting method increasing the bet amount set for the pass line bet (a betting method called an odds bet).

[1576] Further, in the present embodiment, only the field bet is made in the processing (b) in the inventions of (36) to (40) and in the step (b) of the invention of (41). However, both the field bet and the come bet may be made for one roll of dice in the processing (b) in the inventions of (36) to (40) and the

step (b) in the invention of (41). That is, a bet may be placed on multiple specific bet targets for one roll of dice in the processing (b) in the inventions of (36) to (40) and the step (b) in the invention of (41).

[1577] In the present embodiment, the touch panel 114 is adopted as the input device for selecting the easy mode or the professional mode, and as the input device for making a bet on the come bet, the place bet, the field bet, or the like in the professional mode. The input device (input device in the invention of (37)) for selecting the mode of the common game, and the input device (input device in the invention of (39)) for placing a bet in the common game may be the same input device as described above, or may be different input devices

[1578] The input device is not limited to a touch panel, and known input devices such as a button, for example, may be suitably adopted. For example, a bet may be placed in the common game by operating a bet button for placing a bet in the normal game (for example, slot game).

[1579] In the present embodiment, the mode of the common game is determined according to the operation of the touch panel 114 provided in each participating gaming machine by the player. However, in the inventions of (36) to (41), the mode of the common game may be determined in all the participating gaming machines when the player operates the touch panel 114 provided in one participating gaming machine.

[1580] Further, the mode of the common game may be determined in each participating gaming machine according to the extracted random value.

[1581] In the present embodiment, an input for selecting the mode of the common game is accepted in the order from the gaming machine 1 with the largest individual bet amount to the gaming machine 1 with the N<sup>th</sup> largest individual bet amount (see FIG. 52A).

[1582] When an input for selecting the mode of the common game is accepted in the order from the gaming machine 1 with the largest individual bet amount to the gaming machine 1 with the  $N^{th}$  largest individual bet amount in the invention of (40), the following configuration is preferably adopted.

[1583] That is, as described in the present embodiment, the minimum number of participants is preferably set for each mode of the common game.

[1584] In this case, a player with a larger accumulated bet amount has a higher possibility of selecting a mode that he or she desires. This may offer a deeper sense of superiority and satisfaction to the player, and encourage the player, wishing to select the mode he or she desires, to bet a larger amount of game media.

[1585] According to the sixth embodiment of the present invention, when the craps game is in the professional mode, a payout in the craps game is determined based on both the bet on the pass line bet and the bet on a different betting method from the pass line bet (a betting method such as the come bet, the place bet, the field bet, or an any craps bet). Accordingly, the player is allowed to be interested in the result of the craps game. As a result, the player may be absorbed in the craps

[1586] According to the sixth embodiment of the present invention, a bet by the pass line bet is determined even without a bet of game media, when the craps game is in the easy mode. Namely, the player needs not to make an operation for

placing a bet on the craps game, and therefore, the player is allowed to be concentrated on the craps game.

[1587] On the other hand, the player needs to select a bet target to bet out of a plurality of bet targets (such as the come bet, the place bet, the field bet, or the any craps bet), when the craps game is in the professional mode. Accordingly, the player can play a more challenging craps game.

[1588] As above described, it is possible to provide the players with a more amusing game by varying the bet in the craps game.

[1589] According to the sixth embodiment of the present invention, the amount in accordance with the amount of game media betted in each of the gaming machines is accumulated in association with that gaming machine. The input for selecting the mode of the craps game is accepted based on the individual bet amount corresponding to the amount of game media accumulated in each of the gaming machines.

[1590] The input for selecting the mode of the craps game may be sequentially accepted in an order starting from the gaming machine with the largest accumulated bet amount.

[1591] Accordingly, the player having betted a larger amount of game media may be provided with a chance to select the mode of the craps game preferentially. This provides the player with a sense of superiority. In addition, it is possible to encourage the player who wants to select the mode of the craps game to bet more game media.

[1592] According to the sixth embodiment of the present invention, when the player needs to select the mode of the craps game, the lower image display panel provided in the gaming machine displays an image for selecting the mode. When the professional mode is selected, the lower image display panel displays an image for selecting a bet target to bet out of multiple bet targets (such as the come bet, the place bet, or the field bet). The lower image display panel is provided with the touch panel, and the player can select the mode of the craps game and the bet target by touching the button image included in the displayed image. Thereby, the player can easily select the mode of the craps game and the bet target, and therefore can greatly enjoy the game.

#### Seventh Embodiment

[1593] In a seventh embodiment, the inventions of (42) to (48) are described.

[1594] In the following, the same reference numerals are given to the components identical to the components of the gaming system 300 according to any of the above embodiments.

[1595] Descriptions are omitted for parts in the fourth embodiment to which descriptions in any of the above embodiments are applicable.

[1596] The lower image display panel 141 notifies the accumulated bet situation and the timeout situation in the seventh embodiment.

[1597] The accumulated bet situation indicates the contrast between the individual bet amount in each gaming machine 1 and the setting amount for participation.

[1598] In the present embodiment, as described in the first embodiment, the gaming machine 1 with the individual bet amount being equal to or more than the setting amount for participation is selected as the gaming machine 1 participating in the common game when the predetermined condition is satisfied.

[1599] The accumulated bet situation indicates the relation between the current individual bet amount and the setting amount for participation.

[1600] The timeout situation shows predetermined time from the predetermined measuring start time.

[1601] In the present embodiment, whether or not a game is played on the gaming machine 1 (whether or not the number of credits is 0) is determined at a predetermined timing after the individual bet amount has reached the setting amount for participation. When determination is made that a game is not played continuously for predetermined time, the gaming machine 1 loses the qualification for participating in the common game. In the following, the gaming machine 1's loss of the qualification for participating in the common game is also referred to as timeout.

[1602] The timeout situation indicates the time left before timeout.

[1603] First, the outline of the seventh embodiment is described with reference to FIG. 53.

[1604] FIG. 53A to FIG. 353B are views illustrating an exemplary image displayed on the lower image display panel included in the gaming machine according to the seventh embodiment of the present invention.

[1605] FIG. 53A is a view showing an individual bet amount situation display image 7421.

[1606] The individual bet amount situation display image 7421 displayed on the lower image display panel 141 notifies the player of the accumulated bet situation.

[1607] The individual bet amount situation display image 7421 consists of six regions which constitute a pie chart.

[1608] When the individual bet amount is 0, the individual bet amount situation display image 7421 shows the regions all in white. As the individual bet amount is accumulated, the number of the meshed regions in the individual bet amount situation display image 7421 is increased. When the individual bet amount reaches the setting amount for participation, the individual bet amount situation display image 7421 shows the regions all in the mesh pattern.

[1609] FIG. 53B is a view illustrating a timeout level display image 7422.

[1610] The timeout level display image 7422 displayed on the lower image display panel 141 notifies the player of a timeout situation.

[1611] The timeout level display image 7422 consists of 15 regions which serve as scales.

[1612] When determination is made that the number of accumulated credits in the gaming machine 1 is not 0, the timeout level display image 7422 shows all the regions in the mesh pattern. On the other hand, when the number of accumulated credits remains to be 0 for a while, the timeout level display image 7422 shows more regions in white as a certain period of time elapses. When predetermined time elapses with the number of credits remaining to be 0, the timeout level display image 7422 shows all the regions in white. At this time, a display image 7423 of the loss of common game participation qualification, which notifies that the player cannot participate in the next craps game, is then displayed instead of the individual bet amount situation display image 7421.

[1613] With the individual bet amount situation display image 7422, the player can determine the individual bet amount in comparison with the setting amount for participation

[1614] With the timeout level display image 7422, the player can determine how much time is left before timeout.

[1615] In the above, the seventh embodiment has been summarized with reference to FIG. 53.

[1616] Next, individual bet amount display processing is described with reference to FIG. 54.

[1617] FIG. 54 is a view illustrating the flowchart of the individual bet amount display processing executed by the external control device according to the seventh embodiment of the present invention.

[1618] First, the main CPU 241 determines whether or not the individual bet amount associated with each of the gaming machines 1 is equal to or more than the amount resulting from multiplying the setting amount for participation by ½, based on the setting amount for participation data stored in the ROM 242 (the memory device in the invention of (43)), and the individual bet amount data for each gaming machine stored in the RAM 243 (the memory device in the invention of (42)) (step S7332).

[1619] When determining that the individual bet amount is less than the amount resulting from multiplying the setting amount for participation by ½, the main CPU 241 displays an empty image on the gaming machine 1 associated with the individual bet amount (step S7303). In this processing, the main CPU 241 transmits an empty image display signal to the gaming machine 1. On receiving the empty image display signal, the main CPU 71 displays an empty image on the lower image display panel 141 using the empty image data stored in the ROM 72.

[1620] The empty image shows all the six regions constituting the individual bet amount situation display image 7421 in white.

[1621] After executing the processing of step S7303, the main CPU 241 ends the present subroutine.

[1622] When determining that the individual bet amount is equal to or more than the amount resulting from multiplying the setting amount for participation by ½, the main CPU 241 determines whether or not this individual bet amount is equal to or more than the amount resulting from multiplying the setting amount for participation by ½ (step S7304).

[1623] When determining that the individual bet amount is less than the amount resulting from multiplying the setting amount for participation by 1/3, the main CPU 241 displays a 1/6 image on the gaming machine 1 associated with the individual bet amount (step S7305). In this processing, the main CPU 241 transmits a 1/6 image display signal to the gaming machine 1. On receiving the 1/6 image display signal, the main CPU 71 displays the 1/6 image on the lower image display panel 141 using 1/6 image data stored in the ROM 72.

[1624] The ½ image shows one of the six regions constituting the individual bet amount situation display image 7421 in the meshed pattern and shows the remaining five regions in white.

[1625] After executing the processing of step S7305, the main CPU 241 ends the present subroutine.

[1626] When determining that the individual bet amount is equal to or more than the amount resulting from multiplying the setting amount for participation by ½, the main CPU 241 determines whether or not this individual bet amount is equal to or more than the amount resulting from multiplying the setting amount for participation by ½ (step S7306).

[1627] When determining that the individual bet amount is less than the amount resulting from multiplying the setting amount for participation by ½, the main CPU 241 displays a

% image on the gaming machine 1 associated with the individual bet amount (step S7307). In this processing, the main CPU 241 transmits a % image display signal to the gaming machine 1. On receiving the % image display signal, the main CPU 71 displays the % image on the lower image display panel 141 using % image data stored in the ROM 72.

[1628] The ½ image shows two of the six regions constituting the individual bet amount situation display image 7421 in the meshed pattern and shows the remaining four regions in white.

[1629] After executing the processing of step S7307, the main CPU 241 ends the present subroutine.

[1630] When determining that the individual bet amount is equal to or more than the amount resulting from multiplying the setting amount for participation by ½, the main CPU 241 determines whether or not this individual bet amount is equal to or more than the amount resulting from multiplying the setting amount for participation by ⅓ (step S7308). When determining that the individual bet amount is less than the amount resulting from multiplying the setting amount for participation by ⅓, the main CPU 241 displays a ⅓ image on the gaming machine 1 associated with the individual bet amount (step S7309). In this processing, the main CPU 241 transmits a ⅓ image display signal to the gaming machine 1. On receiving the ⅓ image display signal, the main CPU 71 displays the ⅓ image on the lower image display panel 141 using ⅓ image data stored in the ROM 72.

[1631] The 3/6 image shows three of the six regions constituting the individual bet amount situation display image 7421 in the meshed pattern and shows the remaining three regions in white

[1632] After executing the processing of step S7309, the main CPU 241 ends the present subroutine.

[1633] When determining that the individual bet amount is equal to or more than the amount resulting from multiplying the setting amount for participation by ½, the main CPU 241 determines whether or not this individual bet amount is equal to or more than the amount resulting from multiplying the setting amount for participation by ½ (step S7310).

[1634] When determining that the individual bet amount is less than the amount resulting from multiplying the setting amount for participation by 5%, the main CPU 241 displays a % image on the gaming machine 1 associated with the individual bet amount (step S7311). In this processing, the main CPU 241 transmits a % image display signal to the gaming machine 1. On receiving the % image display signal, the main CPU 71 displays the % image on the lower image display panel 141 using % image data stored in the ROM 72.

[1635] The  $\frac{4}{5}$  image shows four of the six regions constituting the individual bet amount situation display image 7421 in the meshed pattern and shows the remaining two regions in white.

[1636] After executing the processing of step S7311, the main CPU 241 ends the present subroutine.

[1637] When determining that the individual bet amount is equal to or more than the amount resulting from multiplying the setting amount for participation by 5%, the main CPU 241 determines whether or not this individual bet amount is equal to or more than the setting amount for participation (step S7312).

[1638] When determining that the individual bet amount is less than the setting amount for participation, the main CPU 241 displays a % image on the gaming machine 1 associated with the individual bet amount (step S7313). In this process-

ing, the main CPU **241** transmits a <sup>5</sup>/<sub>6</sub> image display signal to the gaming machine **1**. On receiving the <sup>5</sup>/<sub>6</sub> image display signal, the main CPU **71** displays the <sup>5</sup>/<sub>6</sub> image on the lower image display panel **141** using <sup>5</sup>/<sub>6</sub> image data stored in the ROM **72**.

[1639] The 5% image shows five of the six regions constituting the individual bet amount situation display image 7421 in the meshed pattern and shows the remaining one region in white

[1640] After executing the processing of step S7313, the main CPU 241 ends the present subroutine.

[1641] When determining that the individual bet amount is equal to or more than the setting amount for participation, the main CPU 241 displays a full image on the gaming machine 1 associated with the individual bet amount (step S7314). In this processing, the main CPU 241 transmits a full image display signal to the gaming machine 1. On receiving the full image display signal, the main CPU 71 displays the full image on the lower image display panel 141 using full image data stored in the ROM 72.

[1642] The full image shows six regions constituting the individual bet amount situation display image 7421 in the meshed pattern.

[1643] After the processing of step S7314, the main CPU 241 ends the present subroutine.

[1644] Next, timeout display processing is described with reference to FIG. 55A and FIG. 55B. The timeout display processing is repeatedly executed in each gaming machine every minute. "Every minute" corresponds to "the predetermined timing" in the inventions of (45), (46), and (48).

[1645] FIG. 55A is a view illustrating a flowchart of the timeout display processing executed by the gaming machine according to the seventh embodiment of the present invention.

[1646] First, the main CPU 71 determines whether or not the individual bet amount is equal to or more than the setting amount for participation (step S7420). When determining that the individual bet amount is less than the setting amount for participation, the main CPU 71 ends the present subroutine.

[1647] On the other hand, when determining that the individual bet amount is equal to or more than the setting amount for participation, the main CPU 71 determines whether or not the number of credits is 0 (step S7421). In this processing, the main CPU 71 determines whether or not the value stored in the amount-of-credit storage area provided in the RAM 73 is 0.

[1648] When determining that the number of credits is 0, the main CPU 71 subtracts 1 from a timeout value T stored in a predetermined region provided in the RAM 73 (step S7422). In this processing, the main CPU 71 stores again the value resulting from subtracting 1 from the timeout value T into the predetermined region.

[1649] Next, the main CPU 71 displays a timeout level display image based on the timeout value T (step S7423). In this processing, the main CPU 71 displays in the meshed pattern the regions constituting the timeout level display image 7422 in number according to the timeout value T. For example, when T=10, the timeout level display image 7422 shows 10 regions in the meshed pattern and shows 5 regions in white.

[1650] Next, the main CPU 71 determines whether or not T is 0 (step S7424). When determining that T is not 0, the main CPU 71 ends the present subroutine.

[1651] On the other hand, when determining that T is 0, the main CPU 71 stores a timeout flag in the predetermined region provided in the RAM 73 (step S7425).

[1652] Then, the main CPU 71 transmits a timeout signal to the external control device 200. When receiving the timeout signal, the main CPU 241 provided in the external control device 200 stores the timeout flag into the RAM 243, in association with the gaming machine 1 as the transmission source of the timeout signal.

[1653] After executing the processing of step S7425, the main CPU 71 ends the present subroutine.

[1654] The processing that the main CPU 71 stores the timeout flag into the RAM 73 and the processing that the main CPU 71 transmits the timeout signal to the external control device 200 constitute "a processing not to execute a common game to be started" in the processing (b) of the invention of (45).

[1655] On the other hand, when determining in step S7421 that the number of credits is not 0, the main CPU 71 sets timeout value T to 15 (step S7426). In this processing, the main CPU 71 stores 15 in the predetermined region provided in the RAM 73.

[1656] Next, the main CPU 71 displays a timeout level display image based on the time out value T (step S7427). In this processing, the main CPU 71 displays in the meshed pattern the regions constituting the timeout level display image 7422 in number according to the timeout value T. At this time, T=15, and thus the timeout level display image 7422 having 15 meshed regions is displayed.

[1657] Next, the main CPU 71 determines whether or not the timeout flag is stored in the predetermined region provided in the RAM 73 (step S7428). When determining that the timeout flag is not stored, the main CPU 71 ends the present subroutine.

[1658] On the other hand, when determining that the timeout flag is stored, the main CPU 71 clears the timeout flag (step S7429). The main CPU 71 then transmits a timeout cancellation signal to the external control device 200. When receiving the timeout cancellation signal, the main CPU 241 provided in the external control device 200 clears the timeout flag in the RAM 243, in association with the gaming machine 1 as the transmitting source of the timeout cancellation signal.

[1659] After executing the processing of step S7429, the main CPU 71 ends the present subroutine.

[1660] According to the timeout display processing described with reference to FIG. 55A, addition to the credits after setting of the timeout flag leads to clearance of the timeout flag. The gaming machine 1 with the timeout flag is set cannot participate in the craps game (this will be described in detail later). That is, according to FIG. 55A, the timeout flag is set if the number of credits remains to be 0 for predetermined time (15 minutes after the individual bet amount has reached the setting amount for participation), which disables the gaming machine 1 to participate in the craps game. However, addition to the number of credits after setting of the timeout flag leads to clearance of the timeout flag, which enables again the gaming machine 1 to participate in the craps game.

[1661] However, the timeout display processing does not need to be executed in the above manner. For example, once a timeout flag is set, the gaming machine 1 may be disabled to participate in the craps game regardless of the operation thereafter, as described below with reference to FIG. 55B.

[1662] FIG. 55B is a view illustrating a flowchart of the timeout display processing executed by the gaming machine according to another embodiment of the present invention.

[1663] First, the main CPU 71 determines whether or not the timeout flag is stored in the predetermined region provided in the RAM 73 (step S7401). The timeout flag shows that the gaming machine 1 has lost the qualification for participating in the craps game. The timeout flag is described later in more detail. When determining that the timeout flag is stored, the main CPU 71 ends the present subroutine.

[1664] On the other hand, when determining that the timeout flag is not stored, the main CPU 71 determines whether or not the individual bet amount is equal to or more than the setting amount for participation (step S7402). When determining that the individual bet amount is less than the setting amount for participation, the main CPU 71 ends the present subroutine.

[1665] On the other hand, when determining that the individual bet amount is equal to or more than the setting amount for participation, the main CPU 71 determines whether or not the number of credits is 0 (step S7403). In this processing, the main CPU 71 determines whether or not the value stored in the amount-of-credit storage area provided in the RAM 73 is

[1666] When determining that the number of credits is 0, the main CPU 71 subtracts 1 from the timeout value T stored in the predetermined region provided in the RAM 73 (step S7404). In this processing, the main CPU 71 stores again the value resulting from subtracting 1 from timeout value T into the predetermined region.

[1667] Next, the main CPU 71 displays a timeout level display image based on the time out value T (step S7405). In this processing, the main CPU 71 displays in the meshed pattern the regions constituting the timeout level display image 7422 in number according to the timeout value T. For example, when T=10, the timeout level display image 7422 shows 10 regions in the meshed pattern and shows 5 regions in white.

[1668] Next, the main CPU 71 determines whether or not T is 0 (step S7406). When determining that T is not 0, the main CPU 71 ends the present subroutine.

[1669] On the other hand, when determining that T is 0, the main CPU 71 stores the timeout flag into the predetermined region provided in the RAM 73 (step S7407).

[1670] The main CPU 71 then transmits a timeout signal to the external control device 200. When receiving the timeout signal, the main CPU 241 provided in the external control device 200 stores the timeout flag in the RAM 243, in association with the gaming machine 1 as the transmitting source of the timeout signal.

[1671] After executing the processing of step S7407, the main CPU 71 ends the present subroutine.

[1672] On the other hand, when determining in step S7403 that the number of credits is not 0, the main CPU 71 sets the timeout value T to 15 (step S7408). In this processing, the main CPU 71 stores 15 in the predetermined region provided in the RAM 73.

[1673] Next, the main CPU 71 displays a timeout level display image based on the timeout value T (step S7409). In this processing, the main CPU 71 displays in the meshed pattern the regions constituting the timeout level display image 7422 in number according to the timeout value T. At this time, T=15, and thus the timeout level display image 7422 shows 15 regions in the meshed pattern.

[1674] After executing the processing of step S7409, the main CPU 71 ends the present subroutine.

[1675] According to the above timeout display processing, the maximum value for the timeout value T is 15. When the number of credits remains to be 0 for a while after the individual bet amount has reached the setting amount for participation in the gaming machine 1, the value of T decreases by one every minute. That is, when the number of credits remains to be 0 for 15 minutes after the individual bet amount has reached the setting amount for participation in the gaming machine 1, craps game will not be executed in the gaming machine 1. "For 15 minutes" corresponds to "the predetermined time" in the inventions of (45), (46), and (48).

[1676] Next, participating determination processing is described with reference to FIG. 56.

[1677] The participating determination processing is executed by the external control device 200 in order to select the gaming machine 1 participating in the craps game, when execution of the craps game is determined (see step S259 of FIG. 18).

[1678] FIG. 56 is a view illustrating a flowchart of the participation determination processing executed by the external control device according to the seventh embodiment of the present invention.

[1679] First, the main CPU 241 determines whether or not the timeout flag is stored in the RAM 243 for every gaming machine 1 (step S7294).

[1680] Next, the main CPU 241 determines whether or not each individual bet amount corresponding to gaming machines 1 other than the shooter gaming machine, which have been determined as having the timeout flag not stored, is equal to or more than the setting amount for participation (step S7291).

[1681] Next, the main CPU 241 transmits a non shooter specification signal to the gaming machine 1 determined as having the corresponding individual bet amount equal to or more than the setting amount for participation (step S7292).

[1682] After executing the processing of step S7292, the main CPU 241 ends the present subroutine.

[1683] On the other hand, the main CPU 241 transmits a non participant appointment signal to the gaming machine 1 determined in step S7294 as having the timeout flag stored and to the gaming machine 1 determined in step S7291 as having the individual bet amount less than the setting amount for participation (step S7293). No craps game is executed in the gaming machine 1 having received the non-participant appointment signal. When the gaming machine 1 receives the non-participant appointment signal, the main CPU 241 is to clear the timeout flag stored in the RAM 243.

[1684] Next, the main CPU 241 clears the timeout flag stored in association with the gaming machine 1 to which the non-participant appointment signal has been transmitted in step S7293 (step S7295).

[1685] After executing the processing of step S7295, the main CPU 241 ends the present subroutine.

[1686] In the present embodiment, the individual bet amount is set to 0 after a craps game has been executed (see step S320 of FIG. 22B). However, the individual bet amount does not need to be always 0. The setting amount for participation may be subtracted from the individual bet amount, as described below in detail with reference to FIG. 57A and FIG. 57B.

[1687] FIG. 57A and FIG. 57B are views illustrating a flowchart of the craps game processing executed by the external control device according to another embodiment of the present invention.

[1688] First, the main CPU 241 executes the processing of step S7301 to step S7319, and the processing of step S7321 to step S7328. The processing is the same as the processing of step S301 to step S319 and step S321 to step S328 described with reference to FIG. 22A and FIG. 22B, and thus the descriptions thereof are omitted here.

[1689] The main CPU 241 subtracts setting amount for participation from the individual bet amount shown by the individual bet amount data stored in the individual bet amount storage area provided in the RAM 243 after executing the processing of step S7319 or the processing of step S7323 (step S7320). In this processing, the excess amount of the individual bet amount over the setting amount for participation after the end of the craps game in this processing is carried over to the next game. The carried-over individual bet amount is displayed in the individual bet amount display processing (see FIG. 54).

[1690] After the processing of step S7320, the main CPU 241 ends the present subroutine.

[1691] In the above, the craps game execution processing executed by the external control device 200 has been described with reference to FIG. 57A and FIG. 57B.

[1692] In the above, the seventh embodiment has been described with reference to FIG. 53 to FIG. 57B.

[1693] In the present embodiment, the individual bet amount situation display image 7421 and the timeout level display image 7422 are separately displayed on the lower image display panel 141 provided in the gaming machine 1.

[1694] The lower image display panel 141 corresponds to the output device in the inventions of (42) to (48).

[1695] The output device in the inventions of (42) to (48) is not limited to image display devices such as the lower image display panel 141. For example, notification may be made to the player by sound via a speaker, or by an effect of light via lamps.

[1696] The output device in the inventions of (42) to (48) may be an output device connected to the server. In this case, the individual bet amount situation display images and the timeout level display images corresponding to all the gaming machines 1 can be displayed on a display device such as the common display device.

[1697] In the present embodiment, the condition is adopted that "the individual bet amount is equal to or more than the setting amount for participation". However, the common game participation condition in the present invention is not limited to this example. The common game participation condition in the present invention may for example be that "the individual bet amount ranks in the top Nth".

[1698] Further, in the present embodiment, the processing of comparing the individual bet amount and the setting amount for participation in each gaming machine 1 is executed by the external control device 200 (see FIG. 54). However, in the present invention, the processing of comparing the individual bet amount and the setting amount for participation in each gaming machine 1 may be executed in each gaming machine 1.

[1699] Further, in the present embodiment, the memory device in the inventions of (42) and (43) consists of memory

devices of the ROM **242** and the RAM **243**. However, the memory device in the inventions of (42) and (43) may consist of one memory device.

[1700] In the present embodiment, the specific condition is that "the individual bet amount is equal to or more than the setting amount for participation". However, the specific condition in the present invention is not limited to this example. The specific condition in the present invention may for example be that "the cumulative number of games, cumulatively counted every time a game is executed, is equal to or more than a predetermined number".

[1701] Further, in the present embodiment, whether or not the number of credits is 0 is determined in order to determine whether or not a game is executed in the gaming machine 1. However, the processing (a) in the invention of (45) is not limited to such processing. For example, the gaming machine may have a sensor capable of detecting existence of a player, and may adopt the processing (a) of "determining whether or not a detection signal is received which is outputted from the sensor upon detection of existence of a player".

[1702] In the present embodiment, timeout occurs when determination is made that the number of credits is 0 for a predetermined time (for 15 minutes) after the individual bet amount has reached the setting amount for participation. "When determination is made that the number of credits is 0 after the individual bet amount has reached the setting amount for participation" corresponds to the predetermined start-up time of measuring in the invention of (45). However, the predetermined start-up time of measuring in the invention of (45) is not limited to this example, and may be, for example, "when a predetermined condition (event triggering condition) is satisfied".

[1703] According to the seventh embodiment of the present invention, a condition is employed that the individual bet amount is equal to or more than the setting amount for participation, as the condition to participate in the craps game. The accumulated bet condition indicates the contrast between the individual bet amount at present and the setting amount for participation.

[1704] This allows the player to know the amount of game media he or she needs to bet so that the individual bet amount in the gaming machine on which he or she plays a game reaches the setting amount for participation.

[1705] As a result, when the accumulated bet situation shows that the condition to participate in the craps game is likely to be satisfied, the player can reduce the amount of game media to bet. In contrast, when the accumulated bet situation shows that the condition to participate in the craps game is not likely to be satisfied, the player can increase the amount of game media to bet. Further, when the accumulated bet situation shows that the condition to participate in the craps game cannot be satisfied, the player can quit the game. As above, the player can select his or her next action in accordance with the accumulated bet situation.

[1706] According to another embodiment of the present invention, the setting amount for participation is subtracted from the individual bet amount determined as being equal to or more than the setting amount for participation. Then, after the craps game, the amount corresponding to the amount of the betted game media is added to the amount of game media corresponding to the individual bet amount after subtraction.

[1707] Namely, the balance of the individual bet amount

[1707] Namely, the balance of the individual bet amount and the setting amount for participation is carried over to the next craps game. Then, the accumulated bet situation is noti-

fied based on the carried-over individual bet amount. Accordingly, when a large amount of game media have been betted such that the individual bet amount is in great excess of the setting amount for participation in a gaming machine, it is possible to notify the player on that gaming machine of the state where the individual bet amount is still at a certain level even right after the craps game. As a result, it is possible to provide such a player with satisfaction and a sense of superiority.

[1708] In addition, it is possible to encourage the player playing a game on the gaming machine in which the individual bet amount is sufficient even right after the craps game, to continue playing the game. Consequently, it may reduce the case where the player stops playing a game without knowing that the sufficient individual bet amount is left, so that the player is allowed to enjoy a game with ease. On the other hand, when the carried-over individual bet amount is not so much, it is possible to give a chance to quit the game to the player.

[1709] According to another embodiment of the present invention, when it is determined that the number of credits has been zero for a predetermined time period after measuring is started at a predetermined start-up time of measuring, that gaming machine is not allowed to participate in the craps game even it satisfies the condition to participate in the craps game. Namely, the gaming machine is ineligible to participate in the craps game in the craps game.

[1710] In this regard, according to the seventh embodiment of the present invention, the output device notifies the time elapsed from a predetermined start-up time of measuring until the predetermined time has elapsed and it may give an index of the time in which the player can be away from the gaming machine.

[1711] According to the seventh embodiment of the present invention, the condition to participate in the craps game is that the individual bet amount in the gaming machine is equal to or more than the setting amount for participation. Accordingly, it is required to increase the individual bet amount by playing games for a long time in order to satisfy the specific condition.

[1712] In this regard, according to the seventh embodiment of the present invention, the output device notifies the time elapsed from a predetermined start-up time of measuring until the predetermined time has elapsed to give an index of the time in which the player can be away from the gaming machine. Accordingly, it may avoid the case where the player becomes ineligible to participate in the craps game while he or she is making a pause, though the player has betted a large amount of game media for a long time. As a result, the player is allowed to play games for a long time with ease.

[1713] Further, it may also prevent the case as described below. On the gaming machine that has become available after the individual bet amount had been stored to the extent satisfying the condition to participate in the craps game, a player who has scarcely contributed to the individual bet amount starts playing a game to get a profit provided in the craps game. Accordingly, it is possible to avoid giving a sense of unfairness to the player having played games for a long time, namely the player having contributed to the individual bet amount so much.

[1714] According to the seventh embodiment of the present invention, the accumulated bet situation and the timeout situation are respectively shown by the pie chart of the individual bet amount situation display image and the scales of the

timeout level display image. This allows a player to instinctively know the accumulated bet situation and the timeout situation.

[1715] Although the embodiments of the present invention were described above, they were just illustrations of specific examples, and hence do not particularly restrict the present invention. A specific configuration of each step and the like is appropriately changeable in terms of design. Further, the effects described in the embodiments of the present invention are just recitations of the most suitable effects generated from the present invention. The effects of the present invention are thus not limited to those described in the embodiments of the present invention.

[1716] Further, the foregoing detailed descriptions centered the characteristic parts of the present invention in order to facilitate understanding of the present invention. The present invention is not limited to the embodiments in the foregoing specific descriptions but applicable to other embodiments with a variety of application ranges. Further, terms and phrases in the present specification were used not for restricting interpretation of the present invention but for precisely describing the present invention. It is considered easy for the skilled in the art to conceive other configurations, systems, methods and the like included in the concept of the present invention from the concept of the invention described in the specification. Therefore, it should be considered that recitations of the claims include uniform configurations in a range not departing from the range of technical principles of the present invention. Moreover, an object of the abstract is to enable a patent office, a general public institution, an engineer belonging to the technical field who is unfamiliar with patent, technical jargon or legal jargon, and the like, to smoothly determine technical contents and an essence of the present application with simple investigation. Accordingly, the abstract is not intended to restrict the scope of the invention which should be evaluated by recitations of the claims. Furthermore, for thorough understanding of an object of the present invention and an effect specific to the present invention, it is desired to make interpretation in full consideration of documents already disclosed and the like.

[1717] The foregoing detailed descriptions include processing executed on a computer or a computer network. Explanations and expressions above are described with the aim of being most efficiently understood by the skilled person in the art. In the specification, each step for use in deriving one result should be understood as the self-consistent processing. Further, in each step, transmission/reception, recording or the like of an electrical or magnetic signal is performed. While such a signal is expressed by using a bit, a value, a symbol, a letter, a term, a number or the like in processing of each step, it should be noted that those are used simply for the sake of convenience in description. While there are cases where processing in each step may be described using an expression in common with that of action of a human, processing described in the specification is essentially executed by a variety of devices. Further, another configuration requested for performing each step should become apparent from the above descriptions.

[1718] In DESCRIPTION OF THE EMBODIMENT, the embodiment was divided into the first embodiment to the seventh embodiment. The configurations according to the respective embodiments can be combined so that it is possible to provide a server, a gaming system, and a control method of the server which are even more highly entertaining.

What is claimed as new and desired to be secured by Letters Patent of the United States is:

- 1. A server comprising
- a processor and a memory device provided with a first storage area and a second storage area and

being capable of communicating with a gaming machine, the processor programmed to execute the processing of:

- (A) storing a data in accordance with an amount of game media betted in the gaming machine as a first resource data into the first storage area provided in the memory device:
- (B) storing a second resource data indicative of an amount of game media and being different from the first resource data, into the second storage area provided in the memory device;
- (C) providing game media to the gaming machine when a predetermined condition is satisfied, based on the first resource data stored in the first storage area, and reducing an amount of game media indicated by the first resource data stored in the first storage area;
- (D) determining whether or not the amount of game media indicated by the first resource data stored in the first storage area has been reduced in the processing (C) to a predetermined amount or less; and
- (E) providing game media to the gaming machine when the predetermined condition is satisfied after determining in the processing (D) that the amount of game media has been reduced to the predetermined amount or less, based on the second resource data stored in the processing (B) into the second storage area.
- 2. The server according to claim 1,

wherein

the processing (C) includes

providing game media to the gaming machine in a common game to be executed when the predetermined condition is satisfied, based on the first resource data stored in the first storage area, and reducing the amount of game media indicated by the first resource data stored in the first storage area, and

the processing (E) includes

providing game media to the gaming machine in the common game, when the predetermined condition is satisfied after determining in the processing (D) that the amount of game media has been reduced to the predetermined amount or less, based on the second resource data stored in the processing (B) into the second storage area.

3. The server according to claim 1,

wherein

the processor is further programmed to execute the processing of

(F) outputting an image or sound for notifying a player only of the amount of game media indicated by the first resource data, out of the amounts of game media indicated by the first resource data and the amounts of game media indicated by the second resource data, from an output device connected to the server or an output device provided in the gaming machine,

the processing (E) includes

(E-1) outputting an image or sound for notifying the player of the amount of game media based on the second resource data stored in the processing (B) into the second storage area from the output device instead of executing the processing (F), when determining in the

- processing (D) that the amount of game media has been reduced to the predetermined amount or less, and
- (E-2) providing game media to the gaming machine when the predetermined condition is satisfied after executing the processing (E-1), based on the second resource data stored in the processing (B) into the second storage area.
- 4. A gaming system comprising:
- a plurality of gaming machines;
- a server including a processor and a memory device provided with a first storage area and a second storage area; and
- a network enabling communication between the gaming machines and the server,

the processor programmed to execute the processing of:

- (A) storing a data in accordance with an amount of game media betted in each of the gaming machines as a first resource data, into the first storage area provided in the memory device;
- (B) storing a second resource data indicative of an amount of game media and being different from the first resource data into the second storage area provided in the memory device:
- (C) providing game media to each of the gaming machines when a predetermined condition is satisfied, based on the first resource data stored in the first storage area, and reducing an amount of game media indicated by the first resource data stored in the first storage area;
- (D) determining whether or not the amount of game media indicated by the first resource data stored in the first storage area has been reduced in the processing (C) to a predetermined amount or less; and
- (E) providing game media to each of the gaming machines when the predetermined condition is satisfied after determining in the processing (D) that the amount of game media has been reduced to the predetermined amount or less, based on the second resource data stored in the processing (B) into the second storage area.
- **5**. The gaming system according to claim **4**, wherein

each of the gaming machines comprises an input device and a controller,

the controller is programmed to execute the processing of:
(a) accepting an input made with use of the input device for

betting game media; and
(b) transmitting bet information indicative of an amount of

(b) transmitting bet information indicative of an amount of the game media betted in the processing (a) to the processor.

the processor is further programmed to execute the processing of

(F) receiving the bet information transmitted in the processing (b), and

the processing (A) includes

- storing a data indicative of an amount of game media obtained by adding a part of the amount of game media indicated by the bet information received in the processing (F) to the amount of game media indicated by the first resource data stored in the first storage area provided in the memory device, as a new first resource data into the first storage area.
- **6**. The gaming system according to claim **4**, wherein

each of the gaming machines comprises an input device and a controller,

the controller is programmed to execute the processing of:
(a) accepting an input made with use of the input device for betting game media;

(b) transmitting bet information indicative of an amount of the game media betted in the processing (a) to the processor.

the processor is further programmed to execute the processing of

(F) receiving the bet information transmitted in the processing (b), and

the processing (B) includes

storing a data indicative of an amount of game media obtained by adding a part of the amount of game media indicated by the bet information received in the processing (F) to the amount of game media indicated by the second resource data stored in the second storage area provided in the memory device, as a new second resource data into the second storage area.

7. The gaming system according to claim 5, wherein

the processing (A) includes

storing a data indicative of the amount of game media obtained by adding a predetermined percentage of the amount of game media indicated by the bet information received in the processing (F) to the amount of game media indicated by the first resource data stored in the first storage area provided in the memory device, as a new first resource data into the first storage area, and

the processing (B) includes

storing a data indicative of an amount of game media obtained by adding a specific percentage, which is different from the predetermined percentage, of the amount of game media indicated by the bet information received in the processing (F) to the amount of game media indicated by the second resource data stored in the second storage area provided in the memory device, as a new second resource data into the second storage area.

**8**. The gaming system according to claim **4**, wherein

each of the gaming machines comprises an input device and a controller,

the controller is programmed to execute the processing of:
(a) accepting an input made with use of the input device for betting game media; and

(b) transmitting bet information indicative of an amount of the game media betted in the processing (a) to the processor.

the processor is further programmed to execute the processing of:

(F) receiving the bet information transmitted in the processing (b); and

(G) accumulating an amount in accordance with the amount of game media indicated by the bet information received in the processing (F), in association with a gaming machine as a transmission source of the bet information, and

the processing (C) includes

providing game media to each of the gaming machines when the predetermined condition is satisfied, in an amount corresponding to an accumulated bet amount in the corresponding gaming machine among the accumulated bet amounts corresponding to the amounts of game media each accumulated in the processing (G) in association with one of the gaming machines, and subtract-

ing the amount corresponding to the accumulated bet amount from the amount of game media indicated by the first resource data stored in the first storage area.

9. The gaming system according to claim 4, wherein

the processing (C) includes

providing game media to each of the gaming machines in a common game to be executed when the predetermined condition is satisfied, based on the first resource data stored in the first storage area, and reducing the amount of game media indicated by the first resource data stored in the first storage area,

the processing (E) includes

providing game media to each of the gaming machines in the common game, when the predetermined condition is satisfied after determining in the processing (D) that the amount of game media has been reduced to the predetermined amount or less, based on the second resource data stored in the processing (B) into the second storage area.

10. The gaming system according to claim 4, wherein

the gaming system further includes an output device connected to the server or an output device provided in each of the gaming machines,

the processor is further programmed to execute the processing of

(F) outputting an image or sound for notifying a player only of the amount of game media indicated by the first resource data, out of the amounts of game media indicated by the first resource data and the amounts of game media indicated by the second resource data, from the output device,

the processing (E) includes

- (E-1) outputting an image or sound for notifying the player of the amount of game media based on the second resource data stored in the processing (B) into the second storage area from the output device instead of executing the processing (F), when determining in the processing (D) that the amount of game media has been reduced to the predetermined amount or less, and
- (E-2) providing game media to each of the gaming machines when the predetermined condition is satisfied after executing the processing (E-1), based on the second resource data stored in the second storage area in the processing (B).
- 11. A control method of a server comprising a processor and a memory device provided with a first storage area and a second storage area and being capable of communicating with a gaming machine,

the method comprising:

- (A) the processor storing a data in accordance with an amount of game media betted in the gaming machine as a first resource data into the first storage area provided in the memory device;
- (B) the processor storing a second resource data indicative of an amount of game media and being different from the first resource data, into the second storage area provided in the memory device;
- (C) the processor providing game media to the gaming machine when a predetermined condition is satisfied, based on the first resource data stored in the first storage area, and reducing the amount of game media indicated by the first resource data stored in the first storage area;

- (D) the processor determining whether or not the amount of game media indicated by the first resource data stored in the first storage area has been reduced in the step (C) to a predetermined amount or less; and
- (E) the processor providing game media to the gaming machine when the predetermined condition is satisfied

after determining in the step (D) that the amount of game media has been reduced to the predetermined amount or less, based on the second resource data stored in the second storage area in the step (B).

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