

Server Device, Control Method of Same, and Control Program

Technical Field

[0001]

The present invention relates to a server device, a control method of same, and a control program.

Background Technology

[0002]

Conventionally, a gaming device prepared in a store (including event venues) was used to hold competitions between a plurality of players based on a competition game executed by the gaming device, and hold a game event that decides results of the players and the like.

[0003]

For example, Patent Document 1 discloses a gaming system provided with: a gaming device for a plurality of players participating in a game event to compete against each other; and a server connected to the gaming device through a network. The server provided by the gaming system has: a matching processing part that selects players as opponents from a plurality of players; and an event game progress information generating part that determines an order of competitions conducted between players selected by the matching processing part.

[0004]

The gaming device provided by the gaming system displays only a name of a player associated with a subsequent competition based on information related to a competition order transmitted from the server. Furthermore, when all displayed players related to the subsequent competition are authenticated by the server through the gaming device, the server transmits a game start permission to the gaming device, and the competition is

started in the gaming device.

Prior Technology Documents

Patent Documents

[0005]

Patent Document 1: JP 2015-36008 A

Summary of the Invention

Problem to be Solved by the Invention

[0006]

However, if the gaming device only displays player names associated with a subsequent competition, and when any of the displayed players is at a location separated from the gaming device, the subsequent competition cannot be started. Not only that, but all game events will be delayed as a result of the start of a succeeding competition being sequentially delayed. Therefore, a host of a game event must put a great deal of effort into managing the movement of players so as to not cause as much as possible a period of time where a subsequent competition cannot be started, and thus a game event cannot be efficiently advanced.

[0007]

In view of the foregoing, an object of the present invention is to efficiently advance a game event where a plurality of players is participating.

Means for Solving Problems

[0008]

A server device according to the present invention is a server device connected through a network to a plurality of gaming devices that execute a competition game, containing: a storing part that stores a competition table of a game event where a plurality of players participate; a competition match assigning part that assigns a plurality of competition matches included in the competition table to a predetermined gaming device of the

plurality of gaming devices; a transmitting part that transmits information related to the plurality of competition matches assigned by the competition match assigning part to the predetermined gaming device; and a game controlling part that transmits a start permission of a competition game related to the competition match to the predetermined gaming device if an authentication request of all players related to the competition match selected in the predetermined gaming device of the plurality of competition matches is received from the predetermined gaming device.

[0009]

According to this aspect, players associated with a plurality of competitions are displayed on the gaming device, and therefore, game progress can be started from a competition where all the players are present based on a judgment of a player. Therefore, a period of time where a subsequent competition cannot be started can be suppressed. Thereby, a game event can be efficiently advanced without requiring a great deal of effort in managing the movement of the players.

Effect of the Invention

[0010]

According to the present invention, a game event can be efficiently advanced.

Brief Description of the Drawings

[0011]

FIG. 1 is a network configuration diagram illustrating an example of a gaming system 1.

FIG. 2 is a block diagram illustrating a functional configuration of a server 10.

FIG. 3(a) is a diagram showing an example of an event table, (b) is a diagram showing an example of a competition table, and (c) is a diagram showing an example of a competition order table.

FIG. 4 is a schematic external view of a gaming device 20A.

FIG. 5 is a block diagram illustrating a functional configuration of a gaming device 20A.

FIG. 6 is a block diagram illustrating a functional configuration of a store terminal 30.

FIG. 7 is a block diagram illustrating a functional configuration of a player terminal 40.

FIG. 8 is a block diagram illustrating a functional configuration of a host terminal 60.

FIG. 9 is a diagram showing an operation sequence related to an event registering process of the gaming system 1.

FIG. 10 is a diagram showing an operation sequence related to a player registering process of the gaming system 1.

FIG. 11 is a diagram showing an operation sequence related to a competition table generating process of the gaming system 1.

FIG. 12 is a diagram showing an operation sequence related to a check-in process of the gaming system 1.

FIG. 13 is a diagram showing an operation sequence related to a competition order table generating process of the gaming system 1.

FIG. 14 is a diagram showing an operation sequence related to a game initiating process of the gaming system 1.

FIG. 15(a) is a diagram illustrating an example of a competition order screen, (b) is a diagram illustrating an example of a narrowing-down screen, and (c) is a diagram illustrating an example of a game progress screen.

FIG. 16 is a diagram illustrating another example of a competition order screen.

Description of the Preferred Embodiments

[0012]

Various embodiments of the present invention will be described below while referring to the drawings. However, a technical scope of the present invention is not limited to the embodiments, but extends to an invention described in the scope of the claims and equivalents thereof.

[0013]

(1) Configuration of Gaming System 1

FIG. 1 is a network configuration diagram illustrating an example of a gaming system 1.

[0014]

The gaming system 1 has: a server 10; a plurality of gaming devices 20A to 20C; a store terminal 30; a player terminal 40; and a host terminal 60. The plurality of gaming devices 20A to 20C and the store terminal 30 are installed in a store 3A in a mutually communicable manner. Furthermore, the plurality of gaming devices 20A to 20C and the store terminal 30 are mutually connected through a store network in the store 3A. The store network in the store 3A is connected with the server 10 in a communicable manner through a communication network 2 such as the Internet or the like. Note that stores 3b and 3c are also provided with a store network similar to the store network of the store 3A. Furthermore, the player terminal 40 can be connected to the communication network 2 and store network of the store 3A by wired or wireless communication. Furthermore, the host terminal 60 can be connected to the communication network 2.

[0015]

(2) Configuration of Each Device

(2-1) Configuration of Server 10

FIG. 2 is a block diagram illustrating a functional configuration of the server 10.

[0016]

The server 10 has a server communicating part 11, a server storing part 12, and a server processing part 13. The server 10 is an information processing device (such as a workstation, personal computer, or the like) that is used when a system administrator or the like operates and manages a gaming service.

[0017]

The server communicating part 11 is provided with a communication interface circuit

for connecting the server 10 to the communication network 2, and communicates with the communication network 2. Furthermore, the server communicating part 11 supplies data received from the gaming devices 20A to 20C, store terminal 30, player terminal 40, host terminal 60, and the like to the server processing part 13. Furthermore, the server communicating part 11 transmits the data supplied from the server processing part 13 to the gaming devices 20A to 20C, store terminal 30, player terminal 40, host terminal 60, and the like.

[0018]

The server storing part 12 is provided with at least one of a magnetic tape device, magnetic disk device, or optical disk device. The server storing part 12 stores an operating system program, driver program, application program, data, and the like used for processing in the server processing part 13. For example, the server storing part 12 stores a gaming program or the like that advances a game and creates display data related to a result thereof as an application program. The computer program may be installed in the server storing part 12 using a conventionally known setup program or the like from a portable computer-readable recording medium such as a CD-ROM, DVD-ROM, or the like for example.

[0019]

Furthermore, the server storing part 12 stores an event table shown in FIG. 3(a), a competition table shown in FIG. 3(b), competition order table shown in FIG. 3(c), and the like as data. Furthermore, the server storing part 12 may temporarily store temporary data related to a predetermined process.

[0020]

FIG. 3(a) shows an event table. The event table Includes items such as an "event name", "game condition", "participating player (card ID)", "competition table", and the like associated with each event ID. An "event ID" is identification information for identifying a

game event where a plurality of players competes against each other in a competition game. An "event name" is information indicating a name assigned to each game event such as "tournament T1" or the like for example. A "game condition" is information indicating various rules of a competition game, such as the number of players per team (for example, singles, doubles, triples, and the like), number of rounds, and the like. A "participating player (card ID)" is information indicating a player participating in a game event and a card ID of a game card 50 provided by the player. Note that the game card 50 is an IC card for recording various information (such as user ID, score, and the like) related to a competition game of an owner (player) of the game card 50.

[0021]

FIG. 3(b) shows a competition table. A competition table is an example of a competition table of a game event. The competition table contains items such as a "game ID", "round", "team/player", "check-in", "wins/losses", "score", "status", and the like. A "game ID" is identification information for identifying individual competitions configuring a game event. "Round" is information indicating a number of rounds in a tournament. "Team/player" is a team name and/or player name related to a player competing in the game competition. "Check-in" is information indicating whether or not players have performed check-in as described later at a game event venue. For example, "completed" indicates that check-in is completed, and "incomplete" indicates that check-in has not been completed. "Wins/losses" is information indicating results of the game competition. The "score" is information indicating a score acquired by players in the game competition. The "status" is information indicating a progress related to the game competition.

[0022]

The competition table shown in FIG. 3(b) is a competition table for a tournament-format game event. In other words, in a game event of the present embodiment, game competitions are conducted in order from a first competition (game ID: "E01-G01") in a

first round and ends with a seventh competition (game ID: "E01-G07") in a third round (final round). Note that the competition table is not limited to a tournament format, and may be a round-robin format or the like for example.

[0023]

FIG. 3(c) shows a competition order table. The competition order table is a list of a plurality of competition matches scheduled to be executed by the gaming device assigned by a competition order table processing part 133 described later the gaming devices. FIG. 3(c) shows a competition order table assigned to the gaming device 20A as an example.

[0024]

The competition order table contains items such as an "order", "game ID", "team/player", "check-in", "waiting time", and the like. An "order" is an order of executing competitions tentatively defined by a game event host. The "order" is an order tentatively defined by an arbitrary method by a game event host for convenience of advancing a game event. As described later, the players can start a competition based on their own decision without following the "order" under a predetermined condition. A "waiting time" is a time expected until the start of the competitions when the competitions are conducted as shown in the "order". Note that the competition order table may contain a start time of the competitions when the competitions are conducted as shown in the "order" instead of the "waiting time".

[0025]

The server processing part 13 is provided with one or a plurality of processors and peripheral circuitry thereof. The server processing part 13 is, for example, a CPU, and comprehensively controls an overall operation of the server 10. The server processing part 13 controls an operation of the server communicating part 11 or the like such that various processes of the server 10 are executed by an appropriate procedure based on a program or the like stored in the server storing part 12. The server processing part 13 executes a

process based on a program (operating system program, driver program, application program, or the like) stored in the server storing part 12. Furthermore, the server processing part 13 can execute a plurality of programs (application programs and the like) in parallel.

[0026]

The server processing part 13 is provided with: an event table processing part 131; competition table processing part 132; competition order table processing part 133; game controlling part 134; and card authenticating part 135. These parts are functional modules implemented by a program executed by the processor provided by the server processing part 13. Alternatively, these parts may be implemented in the server 10 as firmware.

[0027]

The event table processing part 131 performs a registering and updating process or the like of the event table stored in the server storing part 12. The competition table processing part 132 performs a registering and updating process or the like of the competition table stored in the server storing part 12. The competition order table processing part 133 is an example of a competition match assigning part, and performs a registering and updating process or the like of the competition order table stored in the server storing part 12. The game controlling part 134 controls progress of the competition game controlling part, which is a multiplayer game. The card authenticating part 135 authenticates the card ID received from the gaming device 20A or the like.

[0028]

(2-2) Configuration of Gaming Device 20A

FIG. 4 is a schematic external view of the gaming device 20A. FIG. 5 is a block diagram illustrating a functional configuration of the gaming device 20A.

[0029]

The gaming device 20A according to the present embodiment is a gaming device that executes game competitions configuring a game event, which is installed in the store 3A. In

the present embodiment, a darts game is conducted as an example of a game.

[0030]

The gaming device 20A is provided with: a gaming device communicating part 21; a gaming device storing part 22; and gaming device operating part 23; a gaming device displaying part 24; and gaming device processing part 25; a dartboard 26; an area detecting part 27; a card slot CS; a gaming device card RW part 28; and a coin insertion part 29.

[0031]

The gaming device communicating part 21 is provided with a communication interface circuit for connecting the gaming device 20A to the communication network 2 and store network of the store 3A, and performs communication between the communication network 2 and store network of the store 3A. Furthermore, the gaming device communicating part 21 supplies data received from the server 10, store terminal 30, and the like to the gaming device processing part 25. Furthermore, the gaming device communicating part 21 transmits the data supplied from the gaming device processing part 25 to the server 10, store terminal 30, and the like.

[0032]

The gaming device storing part 22 is provided with at least one of a magnetic tape device, magnetic disk device, or optical disk device. The gaming device storing part 22 stores an operating system program, driver program, application program, data, and the like used for processing in the gaming device processing part 25. For example, the gaming device storing part 22 stores a gaming program or the like that advances a game and creates display data related to a result thereof as an application program. The computer program may be installed in the gaming device storing part 22 using a conventionally known setup program or the like from a portable computer-readable recording medium such as a CD-ROM, DVD-ROM, or the like for example.

[0033]

Furthermore, the gaming device operating part 23 is for the game event host, a player, or the like to perform various operations, and is implemented by an operating button or the like provided on an operating panel for example. In the present embodiment, the game event host or player uses the gaming device operating part 23 when selecting a type of dart game or the like.

[0034]

The gaming device displaying part 24 may be any device so long as an image, video image, or the like can be displayed, and examples include liquid crystal displays, organic EL (Electro-Luminescence) displays, and the like. The gaming device displaying part 24 may be integrated with the gaming device operating part 23 by a liquid crystal touch panel display for example. The gaming device displaying part 24 displays a video image based on video image data, image based on image data, or the like supplied from the gaming device processing part 25.

[0035]

The gaming device processing part 25 is provided with one or a plurality of processors and peripheral circuitry thereof. The gaming device processing part 25 is, for example, a CPU, which comprehensively controls an overall operation of the gaming device 20A. The gaming device processing part 25 controls an operation of the gaming device communicating part 21 or the like such that various processes of the gaming device 20A are executed by an appropriate procedure based on a program or the like stored in the gaming device storing part 22. The gaming device processing part 25 executes a process based on a program (operating system program, driver program, application program, or the like) stored in the gaming device storing part 22. Furthermore, the gaming device processing part 25 can execute a plurality of programs (application programs and the like) in parallel.

[0036]

The gaming device processing part 25 is provided with a screen display controlling part 251, a game progress controlling part 252, and card information controlling part 253. These parts are functional modules implemented by a program executed by the processor provided by the gaming device processing part 25. Alternatively, these parts may be implemented in the gaming device 20A as firmware.

[0037]

The screen display controlling part 251 controls screen display of the gaming device displaying part 24 based on screen display information received from the server 10. The game progress controlling part 252 controls a progress of a game in the gaming device 20A. The card information controlling part 253 controls an authenticating process of a card ID related to the game card 50 inserted in the card slot CS described later.

[0038]

The dartboard 26 is a board surface serving as a target of the dart game. The dartboard 26 of the present embodiment is divided into a plurality of target areas 26A. A plurality of small holes is provided in the target areas 26A. A tip end portion of an arrow thrown by a player is received in one of the plurality of holes provided in the target area 26A (the arrow sticks to the target area 26A).

[0039]

The area detecting part 27 detects that an arrow has stuck in the target area 26A, and a plurality are provided corresponding to the target areas 26A. In the present embodiment, when an arrow has stuck in the target area 26A, the target area 26A moves slightly rearward due to an arrow impact. The area detecting part 27 transmits a detection signal to the gaming device processing part 25 when a displacement in the target area 26A is detected.

[0040]

The card slot CS is an insertion port for inserting the game card 50 owned by the

player. Four card slots CS are provided in the gaming device 20A in the present embodiment such that a maximum of four players can play a game. Note that over four card slots CS may be provided such that more than four players can play a game.

[0041]

The gaming device card RW part 28 can read a card ID or the like recorded in the game card 50 owned by the player in the store, or write information or the like obtained as a result of a game.

[0042]

The coin insertion part 29 is provided with an insertion port for inserting a coin and a sensor for detecting a coin inserted from the insertion port. In the present embodiment, game play may be made possible by a player inserting a predetermined number of coins from the coin insertion port. Alternatively, game play may be made possible without inserting a coin from the coin insertion port.

[0043]

(2-3) Configuration of Store Terminal 30

FIG. 6 is a block diagram illustrating a functional configuration of the store terminal 30.

[0044]

The store terminal 30 is provided with: a store terminal communicating part 31; a store terminal storing part 32; a store terminal processing part 33; a store terminal displaying part 34; a store terminal operating part 35; and a store terminal card RW part 36. The store terminal 30 is an information processing device (such as a workstation, personal computer, or the like) that is used when the game event host or the like operates and manages a gaming service.

[0045]

The store terminal communicating part 31 is provided with a communication interface

circuit for connecting the store terminal 30 to the communication network 2 and store network of the store 3A, and performs communication between the communication network 2 and store network of the store 3A. Furthermore, the store terminal communicating part 31 supplies data received from the server 10, gaming device 20A, and the like to the store terminal processing part 33. Furthermore, the store terminal communicating part 31 transmits the data supplied from the store terminal processing part 33 to the server 10, gaming device 20A, and the like.

[0046]

The store terminal storing part 32 is provided with at least one of a magnetic tape device, magnetic disk device, or optical disk device. The store terminal storing part 32 stores an operating system program, driver program, application program, data, and the like used for processing in the store terminal processing part 33. For example, the store terminal storing part 32 stores a gaming program or the like that advances a game and creates display data related to a result thereof as an application program. The computer program may be installed in the store terminal storing part 32 using a conventionally known setup program or the like from a portable computer-readable recording medium such as a CD-ROM, DVD-ROM, or the like for example.

[0047]

The store terminal processing part 33 is provided with one or a plurality of processors and peripheral circuitry thereof. The store terminal processing part 33 is, for example, a CPU, which comprehensively controls an overall operation of the store terminal 30. The store terminal processing part 33 controls an operation of the store terminal communicating part 31 or the like such that various processes of the store terminal 30 are executed by an appropriate procedure based on a program or the like stored in the store terminal storing part 32. The store terminal processing part 33 executes a process based on a program (operating system program, driver program, application program, or the like) stored in the

store terminal storing part 32. Furthermore, the store terminal processing part 33 can execute a plurality of programs (application programs and the like) in parallel.

[0048]

The store terminal displaying part 34 may be any device so long as an image, video image, or the like can be displayed, and examples include liquid crystal displays, organic EL (Electro-Luminescence) displays, and the like. The store terminal displaying part 34 may be integrated with the store terminal operating part 35 by a liquid crystal touch panel display for example. The store terminal displaying part 34 displays a video image based on video image data, image based on image data, or the like supplied from the store terminal processing part 33.

[0049]

The store terminal operating part 35 may be any device so long as the store terminal 30 can be operated, and examples include touch panels, key buttons, and the like. The game event host can input a character, number, symbol, or the like using the store terminal operating part 35. When operated by the game event host, the store terminal operating part 35 generates a signal corresponding to the operation. Furthermore, the generated signal is supplied from the store terminal processing part 33 as an instruction for a player.

[0050]

The store terminal card RW part 36 reads a card ID or the like recorded in the game card 50 owned by the player in the store, or writes information or the like obtained as a result of a game to the game card 50.

[0051]

(2-4) Configuration of Player Terminal 40

FIG. 7 is a block diagram illustrating a functional configuration of the player terminal 40.

[0052]

The player terminal 40 is provided with: a player terminal communicating part 41; a player terminal storing part 42; a player terminal processing part 43; a player terminal displaying part 44; and a player terminal operating part 45.

[0053]

The player terminal communicating part 41 is provided with a communication interface circuit for connecting the player terminal 40 to the communication network 2 and store network of the store 3A, and performs communication between the communication network 2 and store network of the store 3A. Furthermore, the player terminal communicating part 41 supplies data received from the server 10, gaming device 20A, and the like to the player terminal processing part 43. Furthermore, the player terminal communicating part 41 transmits the data supplied from the player terminal processing part 43 to the gaming devices 20A, player terminal 40, and the like.

[0054]

The player terminal storing part 42 is provided with at least one of a magnetic tape device, magnetic disk device, or optical disk device. The player terminal storing part 42 stores an operating system program, driver program, application program, data, and the like used for processing in the player terminal processing part 43. For example, the player terminal storing part 42 stores a gaming program or the like that advances a game and creates display data related to a result thereof as an application program. The computer program may be installed in the player terminal storing part 42 using a conventionally known setup program or the like from a portable computer-readable recording medium such as a CD-ROM, DVD-ROM, or the like for example. Alternatively, the computer program may be installed on the player terminal storing part 42 by downloading from the server 10 or the like through the communication network 2. Alternatively, the player terminal storing part 42 may store a web browser. In this case, a player can operate on the web browser an application programs stored in the server 10 or the like through the web

browser.

[0055]

The player terminal processing part 43 is provided with one or a plurality of processors and peripheral circuitry thereof. The player terminal processing part 43 is, for example, a CPU, which comprehensively controls an overall operation of the player terminal 40. The player terminal processing part 43 controls an operation of the player terminal communicating part 41 or the like such that various processes of the player terminal 40 are executed by an appropriate procedure based on a program or the like stored in the player terminal storing part 42. The player terminal processing part 43 executes a process based on a program (operating system program, driver program, application program, or the like) stored in the player terminal storing part 42. Furthermore, the player terminal processing part 43 can execute a plurality of programs (application programs and the like) in parallel.

[0056]

The player terminal displaying part 44 may be any device so long as an image, video image, or the like can be displayed, and examples include liquid crystal displays, organic EL (Electro-Luminescence) displays, and the like. The player terminal displaying part 44 may be integrated with the player terminal operating part 45 by a liquid crystal touch panel display for example. The player terminal displaying part 44 displays a video image based on video image data, image based on image data, or the like supplied from the player terminal processing part 43.

[0057]

The player terminal operating part 45 may be any device so long as the player terminal 40 can be operated, and examples include touch panels, key buttons, and the like. The game event host can input a character, number, symbol, or the like using the player terminal operating part 45. When operated by a player, the player terminal operating part 45 generates a signal corresponding to the operation. Furthermore, the generated signal is

supplied from the player terminal processing part 43 as an instruction for a player.

[0058]

(2-5) Configuration of Host Terminal 60

FIG. 8 is a block diagram illustrating a functional configuration of the host terminal 60.

[0059]

The host terminal 60 is provided with: a host terminal communicating part 61; a host terminal storing part 62; a host terminal processing part 63; a host terminal displaying part 64; and a host terminal operating part 65. The host terminal 60 is an information processing device (such as a workstation, personal computer, or the like) that is used when the game event host or the like operates and manages a gaming service.

[0060]

The host terminal communicating part 61 is provided with a communication interface circuit for connecting the host terminal 60 to the communication network 2, and communicates with the communication network 2. Furthermore, the host terminal communicating part 61 supplies data received from the server 10, gaming device 20A, and the like to the host terminal processing part 63. Furthermore, the host terminal communicating part 61 transmits the data supplied from the host terminal processing part 63 to the gaming devices 20A, host terminal 60, and the like.

[0061]

The host terminal storing part 62 is provided with at least one of a magnetic tape device, magnetic disk device, or optical disk device. The host terminal storing part 62 stores an operating system program, driver program, application program, data, and the like used for processing in the host terminal processing part 63. For example, the host terminal storing part 62 stores a gaming program or the like that advances a game and creates display data related to a result thereof as an application program. The computer program may be installed in the host terminal storing part 62 using a conventionally known setup

program or the like from a portable computer-readable recording medium such as a CD-ROM, DVD-ROM, or the like for example.

[0062]

The host terminal processing part 63 is provided with one or a plurality of processors and peripheral circuitry thereof. The host terminal processing part 63 is, for example, a CPU, which comprehensively controls an overall operation of the host terminal 60. The host terminal processing part 63 controls an operation of the host terminal communicating part 61 or the like such that various processes of the host terminal 60 are executed by an appropriate procedure based on a program or the like stored in the host terminal storing part 62. The host terminal processing part 63 executes a process based on a program (operating system program, driver program, application program, or the like) stored in the host terminal storing part 62. Furthermore, the host terminal processing part 63 can execute a plurality of programs (application programs and the like) in parallel.

[0063]

The host terminal displaying part 64 may be any device so long as an image, video image, or the like can be displayed, and examples include liquid crystal display host organic EL (Electro-Luminescence) displays, and the like. The host terminal displaying part 64 may be integrated with the host terminal operating part 65 by a liquid crystal touch panel display for example. The host terminal displaying part 64 displays a video image based on video image data, image based on image data, or the like supplied from the host terminal processing part 63.

[0064]

The host terminal operating part 65 may be any device so long as the host terminal 60 can be operated, and examples include touch panels, key buttons, and the like. The game event host can input a character, number, symbol, or the like using the host terminal operating part 65. When operated by the host, the host terminal operating part 65 generates

a signal corresponding to the operation. Furthermore, the generated signal is supplied from the host terminal processing part 63 as an instruction for the host.

[0065]

(3) Operation of Gaming System 1

(3-1) Event Registering Process

FIG. 9 is a diagram showing an operation sequence related to an event registering process of the gaming system 1. The operation sequence is executed in cooperation with the elements of the server 10 and host terminal 60 primarily by the server processing part 13 and host terminal processing part 63 based on programs stored in advance in the server storing part 12 and host terminal storing part 62.

[0066]

Step S101

The host terminal operating part 65 of the host terminal 60 receives an input of an event registration instruction by the game event host. In other words, the game event host selects a game condition (such as number of players on one team, number of rounds, and the like) by operating the host terminal operating part 65, and inputs the event registration instruction containing the game conditions and the like to the host terminal 60.

Furthermore, the process moves to step S102.

[0067]

Step S102

The host terminal processing part 63 of the host terminal 60 transmits an event registration request to the server 10 based on the event registration instruction.

Furthermore, the process moves to step S103.

[0068]

Step S103

The event table processing part 131 of the server 10 performs an event registering

process. In other words, the event table processing part 131 issues a new event ID, associates the information included in the event registration request received from the host terminal 60 to the new event ID, and then registers the information in the event table stored in the server storing part 12. Furthermore, the process moves to step S104.

[0069]

Step S104

The event table processing part 131 of the server 10 notifies the host terminal 60 that event registration is completed. Furthermore, the process moves to step S105.

[0070]

Step S105

The host terminal processing part 63 of host terminal 60 performs an event registration ending process.

[0071]

(3-2) Player Registering Process

FIG. 10 is a diagram showing an operation sequence related to a player registering process of the gaming system 1. The operation sequence is executed in cooperation with the elements of the server 10 and player terminal 40 primarily by the server processing part 13 and player terminal processing part 43 based on programs stored in advance in the server storing part 12 and player terminal storing part 42.

[0072]

Step S201

The player terminal operating part 45 of the player terminal 40 performs a player registration accepting process. In other words, a player who wishes to participate in the game event operates the player terminal operating part 45 to input information related to the player (such as card ID and the like) in the player terminal 40. Furthermore, the process moves to step S202.

[0073]

Step S202

The player terminal processing part 43 of the player terminal 40 transmits a player registration request to the server 10. The player registration request contains the information related to the player. Furthermore, the process moves to step S203.

[0074]

Step S203

The event table processing part 131 of the server 10 performs a player registering process. In other words, the event table processing part 131 adds the player to the “participating player” column of the event table stored in the server storing part 12 to update the event table. Furthermore, the process moves to step S204.

[0075]

Note that when a player registration ending condition is satisfied, the event table processing part 131 may notify the player terminal 40 that player registration is completed without performing a player registering process. Herein, the player registration ending condition may be an arbitrary condition such as the number of registered participating players in the game event reaching a predetermined number, a predetermined period passing from the start of accepting player registration, the game event host performing an end instruction operation, or the like.

[0076]

Step S204

The event table processing part 131 of the server 10 notifies the player terminal 40 that player registration is completed. Furthermore, the process moves to step S205.

[0077]

Step S205

The player terminal processing part 43 of the player terminal 40 performs a player

registration ending process.

[0078]

(3-3) Competition Table Generating Process

FIG. 11 is a diagram showing an operation sequence related to a competition table generating process of the gaming system 1. The operation sequence is executed in cooperation with the elements of the server 10 and host terminal 60 primarily by the server processing part 13 and host terminal processing part 63 based on programs stored in advance in the server storing part 12 and host terminal storing part 62.

[0079]

Step S301

The host terminal operating part 65 of the host terminal 60 receives an input of a competition table generation instruction by the game event host. In other words, the game event host operates the host terminal operating part 65 to input the instruction to generate a competition table related to a predetermined event ID in the host terminal 60. Furthermore, the process moves to step S302.

[0080]

Step S302

The host terminal processing part 63 of the host terminal 60 transmits a competition table generation request to the server 10. Furthermore, the process moves to step S303.

[0081]

Step S303

The competition table processing part 132 of the server 10 performs a competition table generating process. In other words, first, the competition table processing part 132 extracts participating players related to a predetermined event ID of the event table stored in the server storing part 12. Next, the competition table processing part 132 determines a competition match between extracted participating players. The determination of the

competition match may be an arbitrary method specified by the game event host, such as a random method, method based on player ranking, or the like. Next, the competition table processing part 132 generates a competition table (refer to FIG. 3(b)) for advancing the determined matches in order. Furthermore, the process moves to step S304.

[0082]

Step S304

The competition table processing part 132 of the server 10 notifies the host terminal 60 that competition table generation is completed. Furthermore, the process moves to step S305.

[0083]

Step S305

The host terminal processing part 63 of host terminal 60 performs a competition table generation ending process.

[0084]

(3-4) Check-in Process

FIG. 12 is a diagram showing an operation sequence related to a check-in process of the gaming system 1. The operation sequence is executed in cooperation with the elements of the server 10 and store terminal 30 primarily by the server processing part 13 and store terminal processing part 33 based on programs stored in advance in the server storing part 12 and store terminal storing part 32.

[0085]

Step S401

The store terminal operating part 35 of the store terminal 30 performs a check-in accepting process. In other words, the game event host or a player that has arrived at the game event venue operates the store terminal operating part 35 to input the information related to the player (such as card ID and the like) in the store terminal 30. Furthermore,

the process moves to step S402.

[0086]

Step S402

The store terminal processing part 33 of the store terminal 30 transmits a check-in request to the server 10. The check-in request contains the information related to the player. Furthermore, the process moves to step S403.

[0087]

Step S403

The competition table processing part 132 of the server 10 performs a competition table updating process. In other words, the competition table processing part 132 updates “incomplete” to “complete” for the player related to the received check-in request of the “check-in” column of the competition table stored in the server storing part 12 to update the competition table. Furthermore, the process moves to step S404.

[0088]

Step S404

The competition table processing part 132 of the server 10 notifies the store terminal 30 that competition table update is completed. Furthermore, the process moves to step S405.

[0089]

Step S405

The store terminal processing part 33 of the store terminal 30 performs a check-in ending process.

[0090]

(3-5) Competition Order Table Generating Process

FIG. 13 is a diagram showing an operation sequence related to a competition order table generating process of the gaming system 1. The operation sequence is executed in cooperation with the elements of the server 10 and host terminal 60 primarily by the server

processing part 13, gaming device processing part 25, and host terminal processing part 63 based on programs stored in advance in the server storing part 12, gaming device storing part 22, and host terminal storing part 62.

[0091]

Step S501

The host terminal operating part 65 of the host terminal 60 receives an input of a competition order table generation instruction by the game event host. In other words, the game event host operates the host terminal operating part 65 to input the instruction to generate a competition order table related to a predetermined gaming device (such as the gaming device 20A) in the host terminal 60. Furthermore, the process moves to step S502.

[0092]

Step S502

The host terminal processing part 63 of the host terminal 60 transmits a competition order table generation request related to the gaming device 20A to the server 10.

Furthermore, the process moves to step S503.

[0093]

Step S503

The competition order table processing part 133 of the server 10 performs a competition order table generating process. In other words, the competition order table processing part 133 generates a competition order table as shown in FIG. 3(c) by referring to all event tables stored in the server storing part 12, and assigning a plurality of games to the gaming device 20A, by a predetermined method. The predetermined method may be an arbitrary method specified by the game event host, such as a random method, method based on player ranking, or the like. Furthermore, the process moves to step S504.

[0094]

Step S504

The competition order table processing part 133 of the server 10 transmits information related to the competition order table to the gaming device 20A.

[0095]

(3-6) Game Initiating Process

FIG. 14 is a diagram showing an operation sequence related to a game initiating process of the gaming system 1. The operation sequence is executed in cooperation with the elements of the server 10 and gaming device 20A primarily by the server processing part 13 and gaming device processing part 25 based on programs stored in advance in the server storing part 12 and gaming device storing part 22.

[0096]

Step S601

The screen display controlling part 251 of the gaming device 20A displays a screen as illustrated in FIG. 15(a) (competition order table) on the gaming device displaying part 24 based on information related to the competition order table. Furthermore, the process moves to step S602.

[0097]

Herein, as illustrated in FIG. 15(a), the competition order screen displays a list of games assigned to the gaming device 20A. The competition order screen includes items such as “order”, “tournament name”, “team/player”, “waiting time”, and the like. As described above, an “order” is an order of executing competitions tentatively defined by a game event host. The “order” is an order temporarily determined for convenience of the progress of the game event, and each player can start a competition based on their own decision without following the "order" under a predetermined condition.

[0098]

Step S602

The gaming device 20A accepts selection of a competition match. In other words, the

player operates the gaming device operating part 23 to select their own competition match on the competition order screen.

[0099]

Herein, for example, of opponents of a game with an order on the competition order screen that is "1", player A is waiting in a vicinity of the gaming device 20A, but player B is not in the vicinity of the gaming device 20A. On the other hand, both player C and player D, who are opponents of a game with an order on the competition order screen that is "2", are both waiting in the vicinity of the gaming device 20A.

[0100]

Furthermore, player C operates the gaming device operating part 23 to select their own competition match (in other words, competition match between player C and player D) on the competition order screen. Furthermore, the process moves to step S603.

[0101]

Step S603

As a result of the selection, the screen display controlling part 251 of the gaming device 20A displays a screen as illustrated in FIG. 15(b) (narrowing-down screen) on the gaming device displaying part 24. As illustrated in FIG. 15(b), the narrowing-down screen is a screen where only a competition match selected by a player is displayed of the competition matches assigned to the gaming device 20A. Note that the selected competition match may be displayed in a more conspicuous manner than another competition match. Furthermore, the process moves to step S604.

[0102]

Step S604

The gaming device 20A accepts input of a card ID of the player C. In other words, player C inserts their own card into the card slot CS of the gaming device 20A to input a card ID in the gaming device 20A. Furthermore, the process moves to step S605.

[0103]

Step S605

The card information controlling part 253 of the gaming device 20A transmits an authentication request of the card ID related to the accepted player C to the server 10.

Furthermore, the process moves to step S606.

[0104]

Step S606

The card authenticating part 135 of the server 10 performs authentication of the card ID related to player C, included in the authentication request. In other words, the card authenticating part 135 determines whether or not the game including the player related to the card ID as an opponent is included in the competition order table stored in the server storing part 12. Furthermore, the process moves to step S607.

[0105]

Step S607

The card authenticating part 135 of the server 10 transmits an authentication result to the gaming device 20A. Furthermore, the process moves to step S608.

[0106]

Step S608

The gaming device 20A further accepts input of a card ID of another player. Herein, for example, the gaming device 20A accepts input of a card ID of the player D. Furthermore, the process moves to step S609.

[0107]

Step S609

The card information controlling part 253 of the gaming device 20A transmits an authentication request of the card ID related to the accepted player D to the server 10.

Furthermore, the process moves to step S610.

[0108]

Step S610

The card authenticating part 135 of the server 10 performs authentication of the card ID related to player D, included in the authentication request. In other words, the card authenticating part 135 refers to the competition order table stored in the server storing part 12, and determines whether or not player D is an opponent to player C for which an authenticating process was performed in the step S606. Furthermore, the process moves to step S611.

[0109]

Step S611

The game controlling part 134 of the server 10 transmits a game start permission to the gaming device 20A. Furthermore, the process moves to step S612.

[0110]

Step S612

The screen display controlling part 251 of the gaming device 20A displays a screen as illustrated in FIG. 15(c) (game progress screen) on the gaming device displaying part 24 upon receiving the game start permission from the server 10. Thereafter, the game progress controlling part 252 of the gaming device 20A advances the game between player C and player D.

[0111]

According to the gaming system 1 as described above, the gaming device 20A displays not only player names related to a subsequent competition, but also player names related to a plurality of competitions, based on information related to the competition order (information related to the competition order table) transmitted from the server 10. Therefore, the players can start a game where all players are present based on their own decision. Therefore, the game event host can efficiently advance a game event without

requiring a great deal of effort in managing the movement of the player.

[0112]

(4) Modified Example

The present invention is not limited to the aforementioned embodiments. In other words, an embodiment where an appropriate design change is added by a person with ordinary skill in the art to the aforementioned embodiment is included in the scope of the present invention so long as the characteristics of the present invention are provided. Furthermore, elements provided by the aforementioned embodiment can be combined as much as technically possible, and the combination thereof is included in the scope of the present invention so long as the characteristics of the present invention are included.

[0113]

For example, when the player is authenticated in the aforementioned step S606, the player terminal 40 of the player who is a competition opponent of the authenticated player or player who is a teammate of the authenticated player is notified that the player is authenticated. Thereby, even a certain player is not present in a vicinity of the gaming device, a competition opponent or teammate is authenticated, and therefore, the player can be immediately be notified that they are being awaited. Thus, the game event can be efficiently advanced. The notification may include information related to the gaming device where the authenticated player inserted the game card 50.

[0114]

Furthermore, the “competition order screen” in the aforementioned step S601 is not limited to the form illustrated in FIG. 15(a). FIG. 16 is a diagram illustrating another example of the competition order screen. For example, as illustrated in FIG. 16, a tournament bracket may be displayed for each game event. Furthermore, for a round-robin event, a round-robin bracket may be displayed for each game event. With these configurations, a player can immediately confirm their competition match and the like.

[0115]

Furthermore, in the competition order table generating process of the aforementioned step S503, a competition order table that excludes a player where check-in is "incomplete" may be generated. Based on this configuration, a competition match where a game does not need to be executed because victory or defeat has been determined in advance due to a default win can be excluded from the competition order table. Thus, the competition order table is simplified, and therefore, a player can immediately confirm their competition match and the like.

[0116]

Furthermore, the game event is not limited to an event held in a single store. For example, a game event may be held simultaneously in a plurality of stores.

[0117]

Furthermore, at an arbitrary time during the game event, the host terminal 60, store terminal 30, and the like may confirm a predetermined table or the like stored in the server 10, and then notify the player terminal 40 owned by the player whose check-in is incomplete. The notification may also include a message that prompts check-in or the like.

[0118]

Furthermore, the notification may also be performed a predetermined number of times. Furthermore, if check-in has not been performed (if a check-in item has not been changed from "incomplete" to "completed") even after a predetermined period of time has passed after the server 10 performs notification a predetermined number of times, the player may be disqualified. The disqualified player may be removed from various tables such as the event table, competition table, competition order table, and the like.

[0119]

Furthermore, in the aforementioned competition table generating process (FIG. 11) and competition order table generating process (FIG. 13), the host terminal 60 transmits the

generation requests of the table to the server 10 (steps S301 and S302 and steps S501 and S502). However, the generation requests of the tables to the server 10 may be performed by the store terminal 30 or another terminal (not illustrated in the drawings) connected to the store network.

[0120]

Furthermore, in steps S604 to S611 of the aforementioned game initiating processes (FIG. 14), the card authenticating part 135 of the server 10 performs a card ID authenticating process. However, the card ID authenticating process may be performed by the gaming device processing part 25 of the gaming device 20A. Specifically, when the competition order table processing part 133 of the server 10 transmits the competition order table to the gaming device 20A (step S504) or the like, card IDs of the players included in the competition order table are collectively transmitted. Furthermore, if the gaming device 20A accepts input of the card IDs of the players, the gaming device processing part 25 determines whether or not the card IDs match matches any of the card ID received from the server 10 to authenticate the card IDs.

[0121]

Note that the present invention is not limited to the aforementioned embodiments, and can be implemented in various other forms with a scope that does not depart from a gist of the present invention. Therefore, the embodiments are merely examples in all points, and are not limitedly interpreted. For example, the processing steps described above can be changed to any order or implemented in parallel within a scope that does not contradict the processing contents. Furthermore, another step may be added between the processing steps. Furthermore, a step described as one step may be divided into a plurality of steps and then implemented, and a step described as being divided into a plurality of steps can be grasped as one step.

Description of Codes

[0122]

1... Gaming system; 2... Communication network; 10... Server; 20A, 20B, 20C... Gaming device; 30... Store terminal; 40... Player terminal; 50... Game card; 60... Host terminal

Claims

[Claim 1]

A server device connected through a network to a plurality of gaming devices that execute a competition game, comprising:

- a storing part that stores a competition table of a game event where a plurality of players participate;

- a competition match assigning part that assigns an order to each of a plurality of competition matches included in the competition table, and assigns the plurality of competition matches to a predetermined gaming device of the plurality of gaming devices;

- a transmitting part that transmits information related to the plurality of competition matches assigned by the competition match assigning part to the predetermined gaming device; and

- a game controlling part that transmits a start permission of a competition game related to the competition match, which is selected without following the order by operation of the predetermined gaming device from the plurality of competition matches displayed on the predetermined gaming device, to the predetermined gaming device without following the order if authentication requests including player identifications of all players related to the selected competition match are received from the predetermined gaming device, and if it has been determined that the player identifications included in the authentication requests correspond to opponents in the competition table.

[Claim 2]

The server device according to claim 1, wherein the competition match assigning part calculates the time required for sequentially executing the plurality of competition matches based on the order for the plurality of competition matches assigned to the predetermined gaming device.

[Claim 3]

A gaming device that executes a competition game, which is connected through a network to a server device provided with a storing part that stores a competition table of a game event where a plurality of players are participating, a competition match assigning part that assigns an order to each of a plurality of competition matches included in the competition

table, and assigns the plurality of competition matches to the gaming device, and a transmitting part that transmits to the gaming device information related to the plurality of competition matches assigned by the competition match assigning part, comprising:

a receiving part that receives from the server device the information related to the plurality of competition matches included in the competition table;

a displaying part that displays a list of the plurality of competition matches based on the information received by the receiving part;

an accepting part that accepts selection of at least one competition match from the list of the plurality of competition matches displayed on the displaying part without following the order; and

a transmit part that transmits an authentication request of a player related to the at least one competition match to the server device.

[Claim 4]

A method of controlling a server device that is provided with a storing part and connected through a network to a plurality of gaming devices that execute a game, comprising:

a step of storing a competition table of a game event where a plurality of players participate in the storing part;

a step of assigning an order to each of a plurality of competition matches included in the competition table;

a step of assigning the plurality of competition matches to a predetermined gaming device of the plurality of gaming devices;

a step of transmitting information related to the plurality of the assigned competition matches to the predetermined gaming device; and

a step of transmitting a start permission of a competition game related to the competition match, which is selected without following the order by operation of the predetermined gaming device from the plurality of competition matches displayed on the predetermined gaming device, to the predetermined gaming device without following the order if authentication requests including player identifications of all players related to the selected competition match.

[Claim 5]

A program that controls a server device that is provided with a storing part and connected through a network to a plurality of gaming devices that execute a game to execute steps in the server device, the steps comprising:

- a step of storing a competition table of a game event where a plurality of players participate in the storing part;

- a step of assigning an order to each of a plurality of competition matches included in the competition table;

- a step of assigning the plurality of competition matches to a predetermined gaming device of the plurality of gaming devices;

- a step of transmitting information related to the plurality of the assigned competition matches to the predetermined gaming device; and

- a step of transmitting a start permission of a competition game related to the competition match, which is selected without following the order by operation of the predetermined gaming device from the plurality of competition matches displayed on the predetermined gaming device, to the predetermined gaming device without following the order if authentication requests including player identifications of all players related to the selected competition match.