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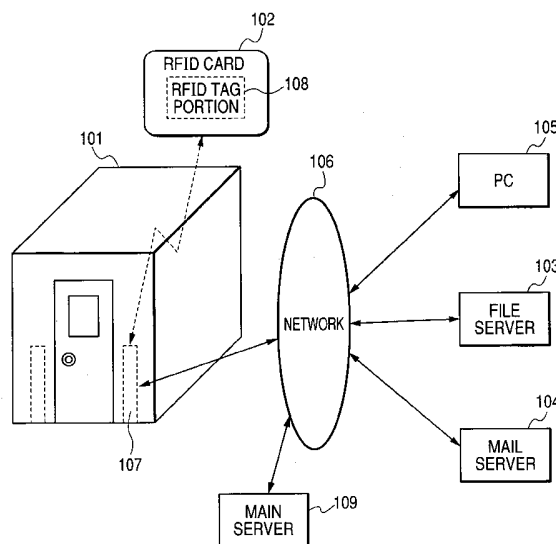
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(54) Title: INFORMATION SHARING SYSTEM, INFORMATION PROCESSING DEVICE, AND CONTROL PROGRAM



(57) Abstract: In an information sharing system including an information reading device and an information processing device, the information reading device includes: a member information reading unit for reading member information from member discrimination cards respectively owned by a plurality of members; and a transmitting unit for transmitting the member information read by the member information reading unit to the information processing device. The information processing device includes: a receiving unit for receiving the member information transmitted from the transmitting unit; an address information detection unit for detecting address information corresponding to the received member information; and an information sharing member list forming unit for forming an information sharing member list based on the address information detected by the address information detection unit.

DESCRIPTION

INFORMATION SHARING SYSTEM,
INFORMATION PROCESSING DEVICE, AND CONTROL PROGRAM

5

TECHNICAL FIELD

The present invention relates to an information sharing system, an information processing device, and a control program. In particular, the present
10 invention relates to an information sharing system for forming an information sharing member list using a member discrimination card owned by each member, an information processing device, and a control program.

15 BACKGROUND ART

There is a case where participants of a conference share a material used in the conference, conference minutes, and the like. According to Japanese Patent Application Laid-Open No. 2003-244241,
20 an organizer of a conference forms a mailing list, and participants of the conference send a material to be shared and the like to the mailing list.

It is also considered that the participants and the organizer of the conference upload the material
25 to be shared to a server prepared by the organizer, and obtain passwords and the like for accessing the material to be shared in the server. This enables

the participants and the organizer of the conference to freely access the material to be shaped.

On the other hand, in order to prevent a third party from accessing the material to be shared and the like accumulated in the server, Japanese Patent Application Laid-Open No. H05-094389 describes measures of applying an access limit to the material to be shared, shared folders, and the like accumulated in the server.

10 However, the above-mentioned mailing list is formed manually by the conference organizer. Therefore, there is a fear in that registration oversight, errors in writing, and the like of mail addresses may occur in the mailing list. Furthermore, 15 the organizer takes labor and time for forming the mailing list.

On the other hand, according to the method of applying an access limit to the material to be shared, shared folders, and the like accumulated in the 20 server, the operation of applying an access limit is performed manually, which may cause registration oversight of an access-permitted member. Furthermore, an administrator of the server (e.g., a conference organizer) takes labor and time for applying an 25 access limit.

DISCLOSURE OF THE INVENTION

An object of the present invention is to provide an information sharing system, an information processing device, and a control program with which automatic formation of a mailing list or automatic giving of an access right to a shared folder can be made.

To achieve the above-mentioned object, according to a first aspect of the present invention, there is provided an information sharing system including an information reading device and an information processing device, in which the information reading device includes: a member information reading unit for reading member information from member discrimination cards respectively owned by a plurality of members; and a transmitting unit for transmitting the member information read by the member information reading unit to the information processing device, and the information processing device includes: a receiving unit for receiving the member information transmitted from the transmitting unit; an address information detection unit for detecting address information corresponding to the received member information; and an information sharing member list forming unit for forming an information sharing member list based on the address information detected by the address information detection unit.

To achieve the above-mentioned object,
according to a second aspect of the present invention,
there is provided an information sharing system
including an information reading device and an
5 information processing device, in which the
information reading device includes: a member
information reading unit for reading member
information from member discrimination cards
respectively owned by a plurality of members; and a
10 transmitting unit for transmitting the member
information read by the member information reading
unit to the information processing device, the
information processing device includes: a receiving
unit for receiving the member information transmitted
15 from the transmitting unit; a storage unit for
storing information to be shared by the plurality of
members; a detection unit for detecting member
discrimination information corresponding to the
received member information; and a registration unit
20 for registering the member discrimination information
detected by the detection unit as member
discrimination information that permits an access to
the storage unit.

To achieve the above-mentioned object,
25 according to a third aspect of the present invention,
there is provided an information sharing system
including an information reading device, and an

information processing device, in which the
information reading device includes: a member
information reading unit for reading member
information from member discrimination cards
5 respectively owned by a plurality of members; and a
transmitting unit for transmitting the member
information read by the member information reading
unit to the information processing device, the
information processing device includes: a receiving
10 unit for receiving the member information transmitted
from the transmitting unit; a detection unit for
detecting member discrimination information
corresponding to the received member information; and
an instruction outputting unit for outputting an
15 instruction of registering the member discrimination
information detected by the detection unit as member
discrimination information that permits an access to
the information storage device, to the information
storage device, and the information storage device
20 includes a registration unit for registering the
member discrimination information detected by the
detection unit as member discrimination information
that permits an access to the information storage
device, based on the instruction from the instruction
25 output unit.

Other features and advantages of the present
invention will be apparent from the following

description when taken in conjunction with the accompanying drawings, in which like reference characters designate the same or similar parts throughout the figures thereof.

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BRIEF DESCRIPTION OF THE DRAWINGS

The accompanying drawings, which are incorporated in and constitute a part of the specification, illustrate embodiments of the invention and, together with the description, serve to explain the principles of the invention.

FIG. 1 is a diagram showing a configuration of an information sharing system according to an embodiment of the present invention.

15 FIG. 2 is a block diagram showing a hardware configuration of a main server 109.

FIG. 3 is a diagram showing a configuration of data included in an RFID tag portion 108 in FIG. 1.

20 FIG. 4 is a block diagram showing a configuration of an RFID reader/writer unit 107 in FIG. 1.

FIG. 5 is a block diagram showing a configuration of the RFID tag portion 108 in FIG. 1.

25 FIG. 6 is a flow chart showing information communication processing executed between the RFID tag portion 108 in the case of entering an area 101 and the RFID reader/writer unit 107 set at an

entrance of the area 101.

FIG. 7 is a flowchart illustrating processing in which a mail server 104 forms a mailing list.

FIG. 8 is a flowchart illustrating processing
5 in which a file server 103 adds an access right to a shared folder of the file server 103.

BEST MODE FOR CARRYING OUT THE INVENTION

Hereinafter, an embodiment of the present
10 invention will be described with reference to FIGS. 1 to 6.

FIG. 1 shows a configuration of an information sharing system according to an embodiment of the present invention.

15 The system is composed of an area 101 such as a conference room in which a Radio Frequency-Identification (RFID) reader mechanism is set at an entrance, an RFID card 102 owned by each member, a file server 103 storing document data and the like, a
20 mail server 104 managing the transmission/reception of mail and a mailing list, and a main server 109 controlling the entire system.

In the FID card 102, an RFID tag portion 108 is embedded.

25 In the figure, reference numeral 106 denotes a network such as a local area network (LAN) or the like, and is connected to a PC 105, the file server

103, the mail server 104, and the main server 109.

At the entrance of the area 101, an RFID reader/writer unit 107 capable of reading and writing information stored in the RFID tag portion 108 is provided. The RFID reader/writer unit 107 can read and write information in a non-contact state without allowing the RFID tag portion 108 to come into contact therewith.

The RFID reader/writer unit 107 is connected to the network 106, and transmits information read from the RFID tag portion 108 to the file server 103 or the main server 109 via the network 106.

FIG. 2 is a block diagram showing a hardware configuration of the main server 109.

The main server 109 includes a CPU 1, a RAM 2, a ROM 3, an HD (hard disk) 4, a network I/F 5, a printer I/F 6, an operation unit 7 such as a keyboard and a mouse, and a display 8. These components are all connected to a bus 9. Furthermore, the network I/F 5 is connected to the LAN 106 in FIG. 1. A hard disk 4 stores data representing a correspondence relationship between a user ID 201 (described later) and a mail address or an account as table data. FIG. 2 shows a hardware configuration of the main server 109. The file server 103, the mail server 104, and the PC 105 shown in FIG. 1 also have a similar hardware configuration. The hard disk of the file

server 103 has a shared folder as described later.

FIG. 3 shows a configuration of data included in the RFID tag portion 108 shown in FIG. 1.

The exchange of information between the RFID
5 card 102 and the RFID reader/writer unit 107 in this system will be described.

In the RFID tag portion 108, a specific user ID 201 and individual data 202 are stored for each user. The user ID 201 and the individual data 202
10 constitute member information.

In the RFID tag portion 108, a specific numerical value is assigned as the user ID 201. The main server 109 can recognize an individual owning the RFID card 102 based on the user ID 201. Although
15 the number of individual data 202 to be stored varies depending upon the user, one or a plurality of individual data 202 are stored in one RFID tag portion 108. The individual data 202 includes individual data ID 203, a data main body 204, and a
20 secret flag 205.

A mail address and an account can be stored in the individual data 202. When a plurality of individual data 202 are stored in the RFID tag portion 108, a mail address or an account common to
25 all the individual data 202 is stored. More specifically, a mail address or an account varying depending upon the individual data 202 cannot be

stored. Furthermore, when a plurality of individual data 202 are stored in the RFID tag portion 108, when a mail address or an account is stored in one individual data 202, the stored mail address or
5 account is reflected on all the plurality of individual data 202. This also applies to the case where a mail address or an account is rewritten.

The individual data ID 203 is assigned an arbitrary numerical value for each individual data,
10 and the individual data ID 203 is combined with the user ID 201, whereby the exchange of various kinds of data can be started with respect to the file server 103 or the main server 109 via the RFID reader/writer unit 107.

15 The secret flag 205 determines the acceptance/rejection of reading of the data main body 204 by the RFID reader/writer unit 107. In order to prevent secret data from being disclosed to a third party by mistake, the data main body 204 with the
20 secret flag 205 attached thereto cannot be read by the RFID reader/writer unit 107 in principle. However, by setting a control unit 305 (FIG. 4) (described later) in the RFID reader/writer unit 107, the data main body 204 with the secret flag 205
25 attached thereto can also be read. Furthermore, the data main body 204 read herein can be transmitted to a mailing list or a shared folder described later.

Furthermore, the data main body 204 with the secret flag 205 attached thereto may be read by a particular terminal or a particular authentication method.

FIG. 4 is a block diagram showing a schematic configuration of the RFID reader/writer unit 107 shown in FIG. 1.

The RFID reader/writer unit 107 includes a transmitting antenna unit 301, a modulation circuit 302, a receiving antenna unit 303, a demodulation circuit 304, a control unit 305, an I/F unit (transmitting means) 306, and a power source 307. The transmitting antenna unit 301 transmits a radio wave to the RFID tag portion 108. The modulation circuit 302 modulates a radio wave transmitted from the transmitting antenna unit 301. The receiving antenna unit 303 receives a radio wave transmitted from the RFID tag portion 108. The demodulation circuit 304 demodulates a signal received from the receiving antenna unit 303. The control unit 305 controls the transmitting antenna unit 301, the modulation circuit 302, the receiving antenna unit 303, and the demodulation circuit 304. The I/F unit 306 communicates with the main server 109 via the network 106. The power source 307 is connected to the transmitting antenna unit 301, and supplies a power to the RFID tag portion 108.

The control unit 305 modulates a radio wave for

supplying a power to the RFID tag portion 108 and data to be transmitted, using the modulation circuit 302 in accordance with an instruction from outside, and transmits a radio wave to outside from the transmitting antenna unit 301. Furthermore, the control unit 305 can receive a radio signal received from outside at the receiving antenna unit 303, demodulate it with the demodulation circuit 304, and convert it so that the demodulated signal can be handled as a data signal.

FIG. 5 is a block diagram showing a configuration of the RFID tag portion 108 shown in FIG. 1.

The RFID tag portion 108 includes a nonvolatile memory 401, an antenna unit 402 for transmitting/receiving a radio wave, a resonant capacitor unit 403, a power generator 404 for rectifying/smoothing a power source, a demodulation/modulation circuit 405 for modulating and demodulating a radio wave, and a controller 406.

The antenna unit 402 is combined with the resonant capacitor 403 to constitute a resonant circuit. Upon receiving a radio signal transmitted from the RFID reader/writer unit 107, the resonant circuit supplies the radio signal to the power generator 404. Because of this, the power generator 404 becomes able to obtain a power for operating the

RFID tag portion 108. The power generator 404 supplies the obtained power to the nonvolatile memory 401 and the demodulation/modulation circuit 405.

The controller 406 controls the
5 demodulation/modulation circuit 405 and the power generator 404 in accordance with a program stored in the nonvolatile memory 401. More specifically, the controller 406 controls the RFID tag portion 108.

The antenna unit 402 transmits/receives data to
10 be read or written in the RFID tag portion 108 in synchronization with a radio signal transmitted from the RFID reader/writer unit 107. The signal transmitted to the RFID tag portion 108 is demodulated with the demodulation/modulation circuit
15 405, and stored in the nonvolatile memory 401 via the controller 406. Furthermore, the data read from the nonvolatile memory 401 by the controller 406 is modulated as a signal by the demodulation/modulation circuit 405. The modulated signal can be transmitted
20 from the antenna unit 402 to the RFID reader/writer unit 107 as a radio signal.

FIG. 6 is a flowchart illustrating information communication processing executed between the RFID tag portion 108 and the RFID reader/writer unit 107
25 set at the entrance of the area 101 in the case of entering the area 101.

First, in order to enter the area 101, a

conference member holds the RFID card 102 over the RFID reader/writer unit 107 set at the entrance when passing through the entrance of the area 101 (step S501). Then, the transmitting antenna unit 307 in the RFID reader/writer unit 107 transmits a radio signal for supplying a power to the RFID tag portion 108. Because of this, the RFID reader/writer unit 107 supplies a power to the RFID tag portion 108, and the user ID 201 and the individual data 202 in the RFID card 102 are read by the RFID reader/writer unit 107 (step S502). The RFID reader/writer unit 107 transmits the read user ID 201 and individual data 202 to the main server 109 via the network 106 (step S503), and the processing is completed.

As a modified example of the processing, a gate may be provided at the entrance of the area 101 so that a radio signal for supplying a power is output from the gate to the RFID tag portion 108. Because of this, the conference member does not need to hold the RFID card 102 over the RFID reader/writer unit 107. That is, only by allowing a conference member to pass through the gate, the user ID 201 and the individual data 202 in the RFID card 102 are read. Thus, for example, the crowdedness with conference members at the entrance of the area is eliminated. Furthermore, a conference member owning the RFID card 102 can contribute to the formation of a mailing list

and the giving of an access right to a shared folder,
described later, without being aware of it. In this
case, it is preferable that a conference member be
considered as having participated in a conference
5 when the conference member stays in the conference
room for a predetermined period of time or longer
after passing through the gate to enter the
conference room. The reason for this is to prevent a
person who enters the conference room temporarily to
10 give a message to a participant in the conference
from being considered as a conference member.

FIG. 7 is a flowchart illustrating the
processing in which the main server 109 forms a
mailing list based on the information transmitted
15 from the RFID reader/writer portion 107. The
processing is mainly executed by the CPU 1 of the
main server 109.

First, the main server 109 receives the user ID
201 and the individual data 202 transmitted from the
20 RFID reader/writer unit 107 (step S601).

Then, it is determined whether or not a mail
address is included in the individual data 202
received in step S601 (step S602).

In step S602, when it is determined that a mail
25 address is included, the main server 109 adds the
mail address to a mailing list (information sharing
member list)(step S604).

In step S602, when it is determined that a mail address is not included, it is determined whether or not a mail address corresponding to the user ID 201 is included in a database recorded in the hard disk 4 of the main server 109 (step S603).

In step S603, when it is determined that a mail address corresponding to the user ID 201 is included, the process proceeds to the above-mentioned step S604. On the other hand, when it is determined that a mail address corresponding to the user ID 201 is not included, the processing is completed.

Then, in the processing in step S604, in accordance with a predetermined operation, or after recognizing that all the members left, using the RFID reader/writer unit 107, it is determined that the processing is completed, and the process proceeds to the processing in step S605. Herein, the predetermined operation refers to, for example, an operation of a switch for designating the completion of a conference set in a conference room or an operation for completing the conference in the main server 109.

After the processing in step S604, the main server 109 generates a mail address (address of a mailing list) at which mail reaches all the members added to a mailing list. The main server 109 uses this mail address (address of a mailing list) to

notify the members added to the mailing list of this mail address (address of a mailing list) (step S605). If mail is transmitted to the mail address (address of a mailing list) generated herein as a destination, 5 the main server 109 once receives the mail. The main server 109 then transmits the same mail to each mail address of the members included in the mailing list with the mail address of the mailing list being described in a destination field. If the address of 10 the mailing list is described in the destination field, the address of the mailing list is shown in a region showing a recipient address of mail software of a recipient. That is, the recipient of the mail can know the address of the mailing list. In step 15 S605, the main server 109 may transmit so-called empty mail without a main body to the mail address added to the mailing list. Alternatively, the main server 109 may transmit a fixed sentence describing the address of the mailing list as a mail main body. 20 It is preferable that a conference ID specifying the conference be generated and included in the address of the mailing list generated at this time. Even if the conference ID is not included in the address, the conference ID may be inserted in a Subject or a main 25 body. Furthermore, instead of separately generating an address for a mailing list, an actual mail address of each member may be inserted in a destination

address as it is to be transmitted. However, in this case, there is a possibility that there is a member desiring to make his/her mail address secret, so that it is preferable to generate a mailing list

5 separately. It is preferable that the conference ID is in the form of an appropriate combination of a conference room name, a conference date and time, and the like.

After this, the main server 109 transmits
10 information such as the minutes of the conference to the mail addresses included in the mailing list via the mail server 103 (step S606), and the processing is completed. The notifying means at this time is mail. Regarding the processing in step S606, a
15 script requiring that data (e.g., information such as the minutes of the conference) stored in a predetermined region of the hard disk 4 be transmitted to the mailing list formed in step S604 by mail is previously generated, and the main server
20 109 may execute the script. In such a case, the organizer of the conference registers the information such as the minutes of the conference in the above-mentioned predetermined region of the hard disk 4 after specifying the conference ID generated in the
25 above, whereby the organizer can transmit the information such as the minutes of the conference to the mail addresses included in the mailing list

automatically.

FIG. 8 is a flowchart illustrating the processing in which the main server 109 adds an access right to a shared folder of the file server 103, based on the information transmitted from the RFID reader/writer unit 107. This processing is mainly executed by the CPU 1 of the main server 109.

Regarding the shared folder, a conference ID may be associated with a folder that is previously present, or a shared folder may be formed newly based on the conference ID. In the case of newly forming a shared folder, it is convenient to set a folder name including the conference ID, because it is easy to know which conference the shared folder belongs to.

First, the main server 109 receives the user ID 201 and the individual data 202 transmitted from the RFID reader/writer unit 107 (step S701).

Next, the main server 109 determines whether or not an account is included in the individual data 202 received in step S701 (step S702).

In step S702, when it is determined that an account is included in the individual data 202, the process proceeds to step S704. In step S704, the mail server 109 outputs to the file server 103 an instruction of giving an access right to the above-mentioned predetermined shared folder included in the hard disk of the mail server 103 to the account

included in the individual data 202. Because of this, the CPU of the file server 103 gives an access right to the shared folder to the account included in the individual data 202. The organizer or the like of
5 the conference previously stores the information such as the minutes of the conference in the predetermined shared folder included in the hard disk of the file server 103.

In step S702, when it is determined that an
10 account is not included in the individual data 202, the process proceeds to step S703. In step S703, the main server 109 determines whether or not an account corresponding to the user ID 201 in the database recorded in the file server 103 is included.

15 In step S703, when it is determined that an account corresponding to the user ID 201 in the database is included, the process proceeds to the above-mentioned step S704. On the other hand, when an account corresponding to the user ID 201 in the
20 database is not included, the processing is completed.

In step S705, the main server 109 determines whether or not a mail address corresponding to an account with an access right given thereto is included in the received user ID 201 and individual
25 data 202 in step S701. When a mail address is not included, the processing is completed. On the other hand, when a mail address is included, mail for

notifying that an access right has been given to the mail address is transmitted (step S706), and the processing is completed.

Regarding the processing of setting an access
5 right, in the same way as in the above-mentioned processing of forming a mailing list, the completion of the processing is determined by a predetermined operation or by recognizing that all the members left with the RFID reader/writer 107.

10 In order to store the minutes and the like in the shared folder, the organizer of the conference performs an operation of directly storing the minutes and the like in the shared folder of the file server 103. Furthermore, when a conference ID is specified
15 and the minutes are transmitted to the main server 109, the main server 109 may automatically store the minutes in the shared folder associated with the conference ID of the file server 103. When the minutes are stored in the shared folder, mail
20 notifying this may be transmitted automatically to all the members. In this case, the mail is transmitted to the mail address recognized in step S707, and in addition, the procedure as shown in FIG. 7 may be used. That is, the processing in FIG. 7 and
25 the processing in FIG. 8 may be combined appropriately in an organic manner. Needless to say, this enables further functional effects to be

expected.

As described above in detail, according to this embodiment, the RFID reader/writer unit 107 reads the user ID 201 and the individual data 202 in the RFID card 102 and sends them to the main server 109. Then, the main server 109 receives the user ID 201 and the individual data 202 transmitted from the RFID reader/writer unit 107. When a mail address is included in the database recorded in the received individual data 202 or hard disk 4, the main server 109 adds the mail address to a mailing list. Because of this, the formation of a mailing list of members having participated in the conference can be automated. Then, the information such as the minutes of the conference can be provided efficiently to the members having participated in the conference, and the information can be shared among the members.

Furthermore, the RFID reader/writer unit 107 reads the user ID 201 and the individual data 202 in the RFID card 102, and transmits them to the main server 109. Then, the main server 109 receives the user ID 201 and the individual data 202 transmitted from the RFID reader/writer unit 107. When an account is included in the database recorded in the received individual data 202 or file server 103, the main server 109 outputs to the file server 103 an instruction of giving an access right to a

predetermined shared folder included in the hard disk of the file server 103 to the account. Because of this, the giving of an access right to the shared folder for the members having participated in the conference can be automated. Then, the information such as the minutes of the conference can be provided efficiently to the members having participated in the conference, and the information can be shared among the members.

10 In the above-mentioned embodiment, three servers, namely the file server 103, the mail server 104, and the main server 109 are present. However, by allowing the main server 109 to have functions of the file server 103 and the mail server 104, the
15 respective processing executed by the three servers may be executed only with the main server 109. In such a case, the main server 109 receives the user ID 201 and the individual data 202 transmitted from the RFID reader/writer unit 107. When an account is
20 included in the database recorded in the received individual data 202 or hard disk 4, the main server 109 gives an access right to a predetermined shared folder included in the hard disk 4 to the account. Because of this, the giving of an access right to the
25 shared folder for the members having participated in the conference can be automated. Then, the information such as the minutes of the conference can

be provided efficiently to the members having participated in the conference, and the information can be shared among the members.

In the above embodiment, although the case
5 where the user ID 201 and the individual data 202 are both included in the RFID tag portion 108 is assumed, only the user ID 201 may be included in the RFID tag portion 108. In this case, data representing the correspondence relationship between the user ID 201
10 and the individual data 202, and data representing the correspondence relationship between the individual data 202 and the mail address or account is stored as table data in the hard disk 4 of the main server 109. This enables the storage capacity
15 of the RFIC tag portion 108 to be reduced.

Furthermore, in the above embodiment, a conference member or a conference organizer may access a mailing list formed by the main server 109, and add or delete a mail address.

20 Furthermore, in the above embodiment, although a member is recognized using the RFID card, various cards capable of recognizing a member such as a contact-type IC card may be used instead.

The present invention may be achieved as
25 follows. A storage medium storing a program cord of software realizing the function of the above embodiment is supplied to a system or an apparatus.

Then, a computer (or a CPU or an MPU) of the system or the apparatus may read the program cord stored in the storage medium to execute it.

In this case, the program cord itself read from
5 the storage medium realizes the function of the above-mentioned embodiment, whereby the program cord and the storage medium storing the program cord constitute the present invention.

Furthermore, it is appreciated that, by
10 executing the program cord read by the computer, the function of the above-mentioned embodiment is realized, and in addition, based on the instruction of the program cord, an operating system (OS) working on the computer performs a part or an entirety of
15 actual processing, and the function of the above-mentioned embodiment is realized by the processing.

Furthermore, the program cord read from the storage medium is written in a memory provided in a function extension card inserted in the computer or a
20 function extension unit connected to the computer. Then, based on the instruction of the program cord, a CPU or the like provided in the function extension card and the function extension unit performs a part or an entirety of the actual processing. It is
25 appreciated that the case where the function of the above-mentioned embodiment is realized by the processing is also included in the present invention.

Furthermore, the above-mentioned program only needs to realize the function of the above-mentioned embodiment with a computer, and its form may be a program executed by an object cord or an interpreter,
5 script data supplied to the OS, or the like.

Examples of the recording medium supplying a program include a floppy (Registered Trade Mark) disk, a hard disk, an optical disk, a magneto-optical disk, a CD-ROM, an MO, a CD-R, a CD-RW, a DVD (DVD-ROM,
10 DVD-RAM, DVD-RW, DVD+RW), a magnetic tape, a nonvolatile memory card, and other ROMs.
Alternatively, the above-mentioned program is supplied by being downloaded from a computer, a database, or the like (not shown) connected to the
15 Internet, a commercial network, a local area network, or the like.

This application claims priority from Japanese
20 Patent Application No. 2004-250556 filed on August 30, 2004, which is hereby incorporated by reference herein.

CLAIMS

1. An information sharing system, comprising an information reading device and an information processing device,

5 wherein the information reading device comprises:

 a member information reading unit for reading member information from member discrimination cards respectively owned by a plurality of members; and

10 a transmitting unit for transmitting the member information read by the member information reading unit to the information processing device, and

 the information processing device comprises:

 a receiving unit for receiving the member
15 information transmitted from the transmitting unit;

 an address information detection unit for detecting address information corresponding to the received member information; and

 an information sharing member list forming unit
20 for forming an information sharing member list based on the address information detected by the address information detection unit.

2. An information sharing system according to claim 1,

25 wherein the information processing device further comprises a shared information transmitting unit for transmitting information shared among the

plurality of members to the address information registered in the information sharing member list formed by the information sharing member list forming unit.

5 3. An information sharing system according to claim 1, wherein the information processing device further comprises a storage unit for storing a database in which the member information is associated with the address information, and

10 the address information detection unit detects the address information corresponding to the received member information from the database when the address information cannot be detected from the received member information.

15 4. An information sharing system according to claim 1, wherein the member discrimination card is an RFID card.

 5. An information sharing system, comprising an information reading device and an information
20 processing device,

 wherein the information reading device comprises:

 a member information reading unit for reading member information from member discrimination cards
25 respectively owned by a plurality of members; and

 a transmitting unit for transmitting the member information read by the member information reading

unit to the information processing device, and

the information processing device comprises:

a receiving unit for receiving the member
information transmitted from the transmitting unit;

5 a storage unit for storing information to be
shared by the plurality of members;

a detection unit for detecting member
discrimination information corresponding to the
received member information; and

10 a registration unit for registering the member
discrimination information detected by the detection
unit as member discrimination information that
permits an access to the storage unit.

6. An information sharing system, comprising an
15 information storage device, an information reading
device, and an information processing device,
wherein the information reading device
comprises:

a member information reading unit for reading
20 member information from member discrimination cards
respectively owned by a plurality of members; and

a transmitting unit for transmitting the member
information read by the member information reading
unit to the information processing device,

25 the information processing device comprises:

a receiving unit for receiving the member
information transmitted from the transmitting unit;

a detection unit for detecting member discrimination information corresponding to the received member information; and

an instruction outputting unit for outputting
5 an instruction of registering the member discrimination information detected by the detection unit as member discrimination information that permits an access to the information storage device, to the information storage device, and

10 the information storage device comprises a registration unit for registering the member discrimination information detected by the detection unit as member discrimination information that permits an access to the information storage device,
15 based on the instruction from the instruction output unit.

7. An information sharing system according to claim 5, wherein the information processing device further comprises:

20 a determination unit for determining whether or not address information corresponding to the member discrimination information registered by the registration unit is included in the member information; and

25 a notifying unit for notifying the address information that the member discrimination information is registered by the registration unit,

when it is determined that the address information is included in the member information by the discrimination unit.

8. An information sharing system according to
5 claim 5, wherein the information processing device further comprises a storage unit for storing a database in which the member information is associated with the member discrimination information, and the detecting unit detects the member
10 discrimination information corresponding to the received member information from the database when the member discrimination information cannot be detected from the received member information.

9. An information sharing system according to
15 claim 5, wherein the member discrimination card is an RFID card.

10. An information processing device connected to an information reading device for reading member information from member discrimination cards
20 respectively owned by a plurality of members, comprising:

a receiving unit for receiving the member information read by the information reading device;

an address information detecting unit for
25 detecting address information corresponding to the received member information; and

an information sharing member list forming unit

for forming an information sharing member list based on the address information detected by the address information detecting unit.

11. An information processing device connected
5 to an information reading device for reading member information from member discrimination cards respectively owned by a plurality of members, comprising:

a receiving unit for receiving the member
10 information read by the information reading device;

a storage unit for storing information to be shared by the plurality of members;

a detecting unit for detecting member discrimination information corresponding to the
15 received member information; and

a registration unit for registering the member discrimination information detected by the detecting unit as member discrimination information that permits an access to the storage unit.

20 12. An information processing device connected to an information storage device for storing information to be shared by a plurality of members and an information reading device for reading member information from member discrimination cards
25 respectively owned by the plurality of members, comprising:

a receiving unit for receiving the member

information read by the information reading device;

a detecting unit for detecting member discrimination information corresponding to the received member information; and

5 an instruction outputting unit for outputting an instruction of registering the member discrimination information detected by the detection unit as member discrimination information that permits an access to the information storage device,
10 to the information storage device.

13. A control program executed by a computer connected to an information reading device for reading member information from member discrimination cards respectively owned by a plurality of members,
15 comprising:

a receiving module for receiving the member information read by the information reading device;

an address information detecting module for detecting address information corresponding to the
20 received member information; and

an information sharing member list forming module for forming an information sharing member list based on the address information detected by the address information detecting module.

25 14. A control program executed by a computer having a storage unit connected to an information reading device for reading member information from

member discrimination cards respectively owned by a plurality of members, for storing information to be shared by the plurality of members, comprising:

5 a receiving module for receiving the member information read by the information reading device;

a detecting module for detecting member discrimination information corresponding to the received member information; and

10 a registration module for registering the member discrimination information detected by the detection module as member discrimination information that permits an access to the storage unit.

15 15. A control program executed by a computer connected to an information storage device for storing information to be shared by a plurality of members, and an information reading device for reading member information from member discrimination cards respectively owned by the plurality of members, comprising:

20 a receiving module for receiving member information read by the information reading device;

a detecting module for detecting member discrimination information corresponding to the received member information; and

25 an instruction output module for outputting an instruction of registering the member discrimination information detected by the detection module as

member discrimination information that permits an access to the information storage device, to the information storage device.

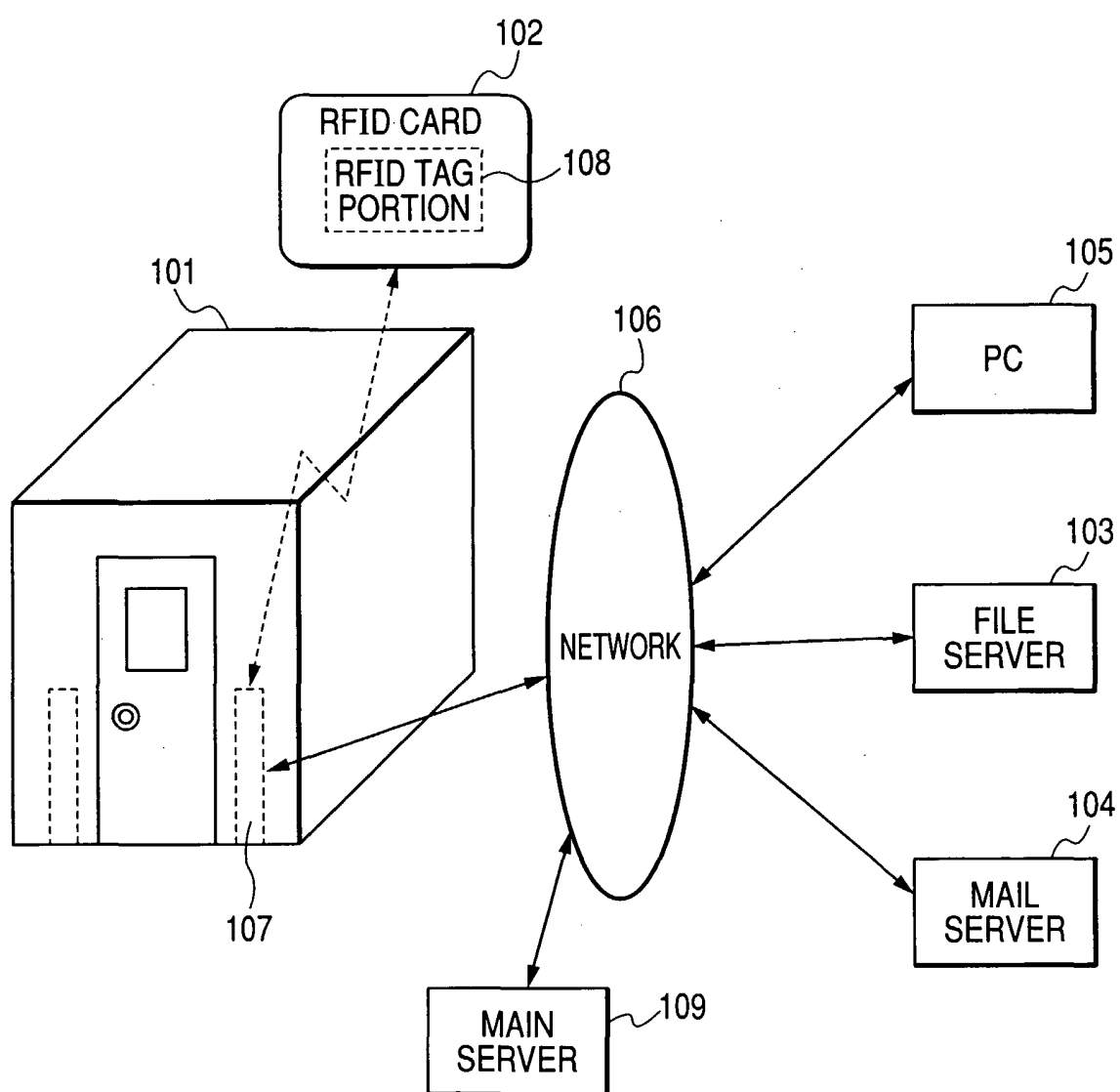
FIG. 1

FIG. 2

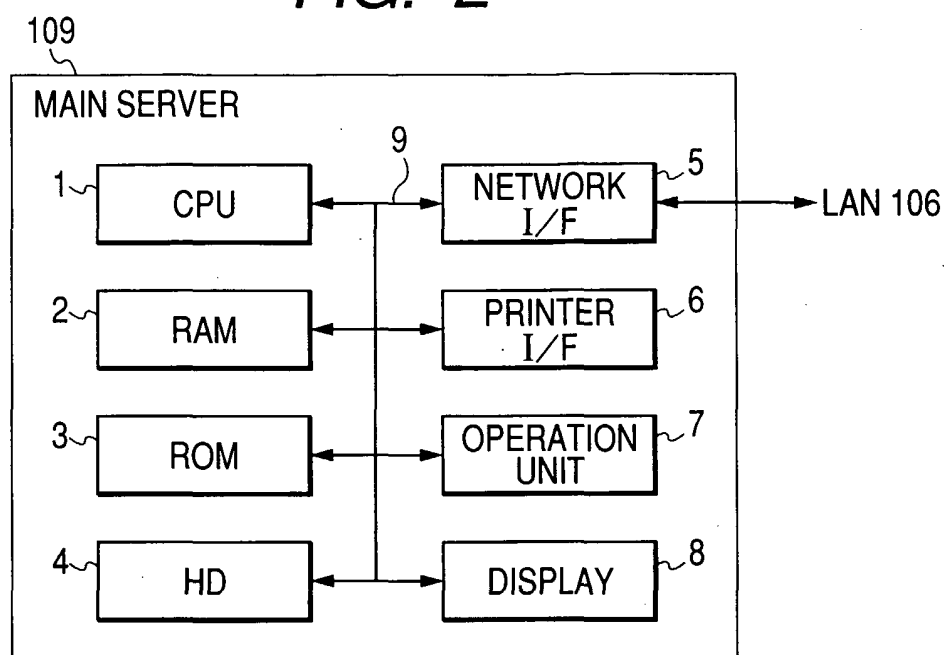


FIG. 3

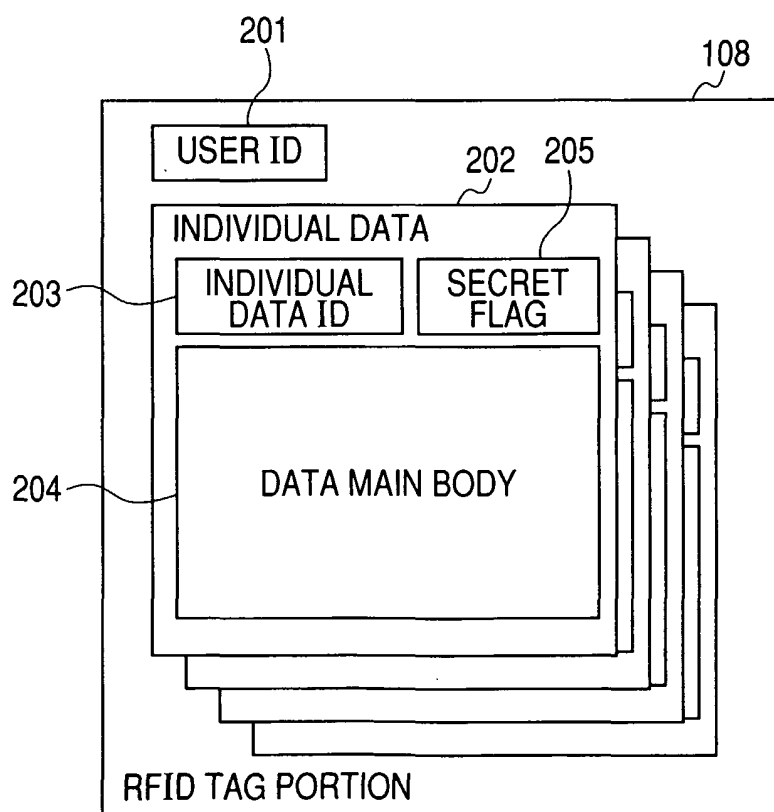


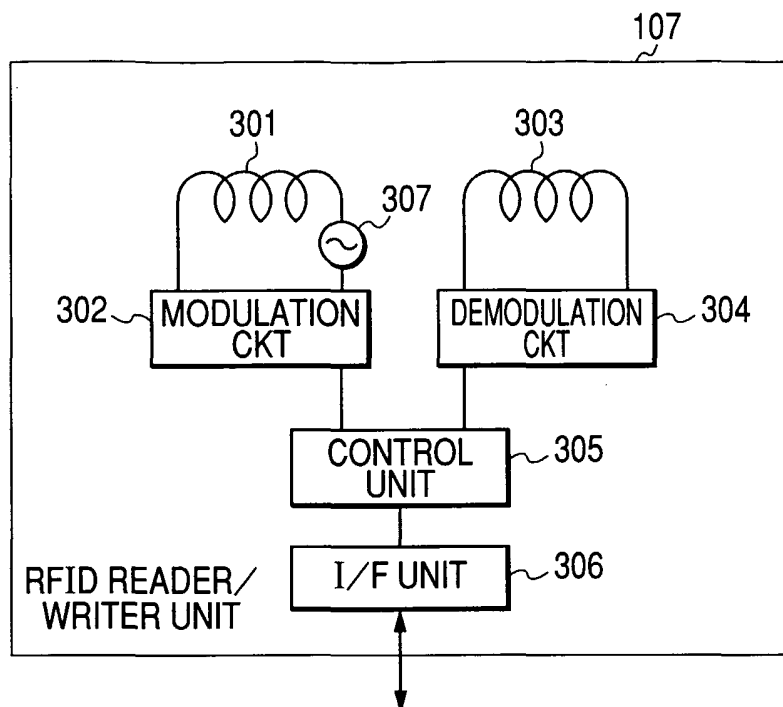
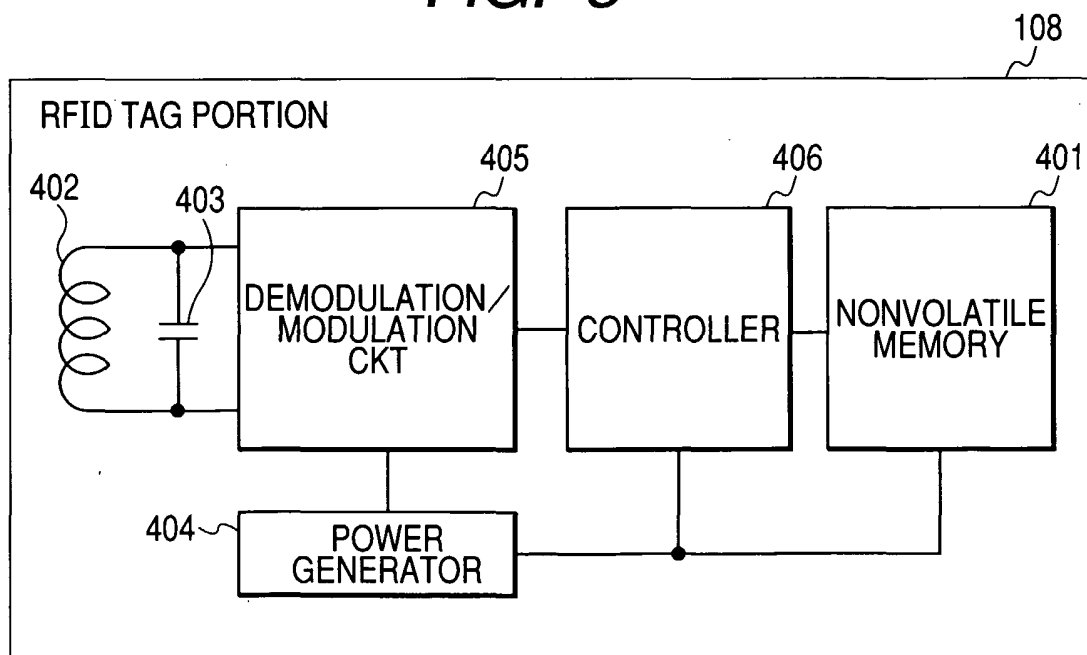
FIG. 4**FIG. 5**

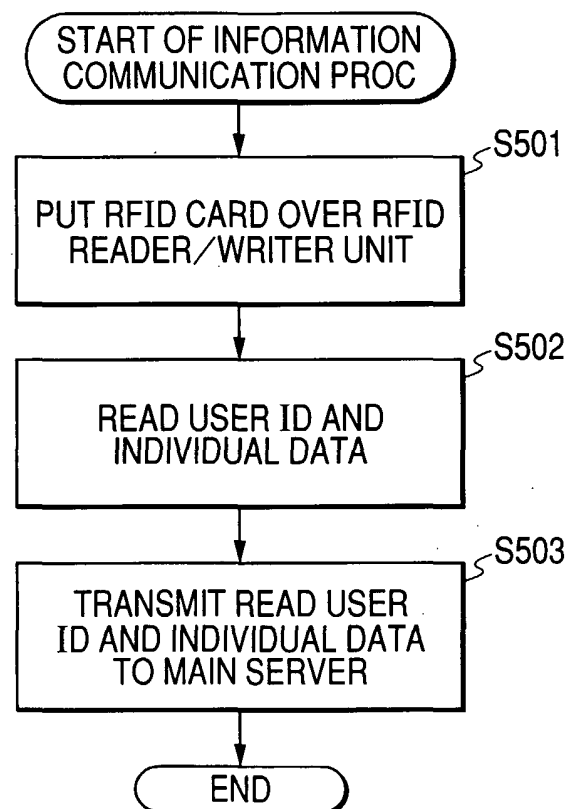
FIG. 6

FIG. 7

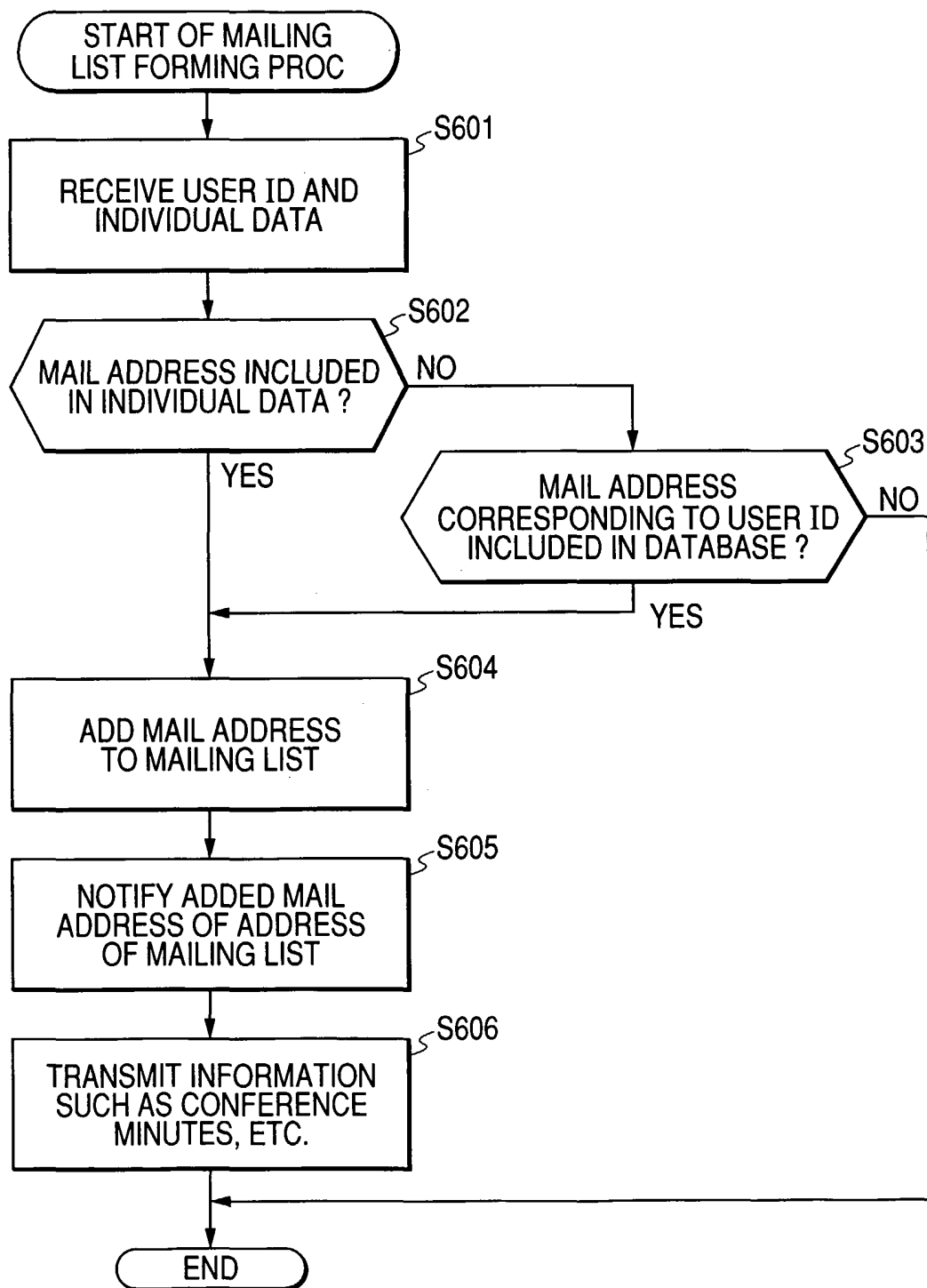
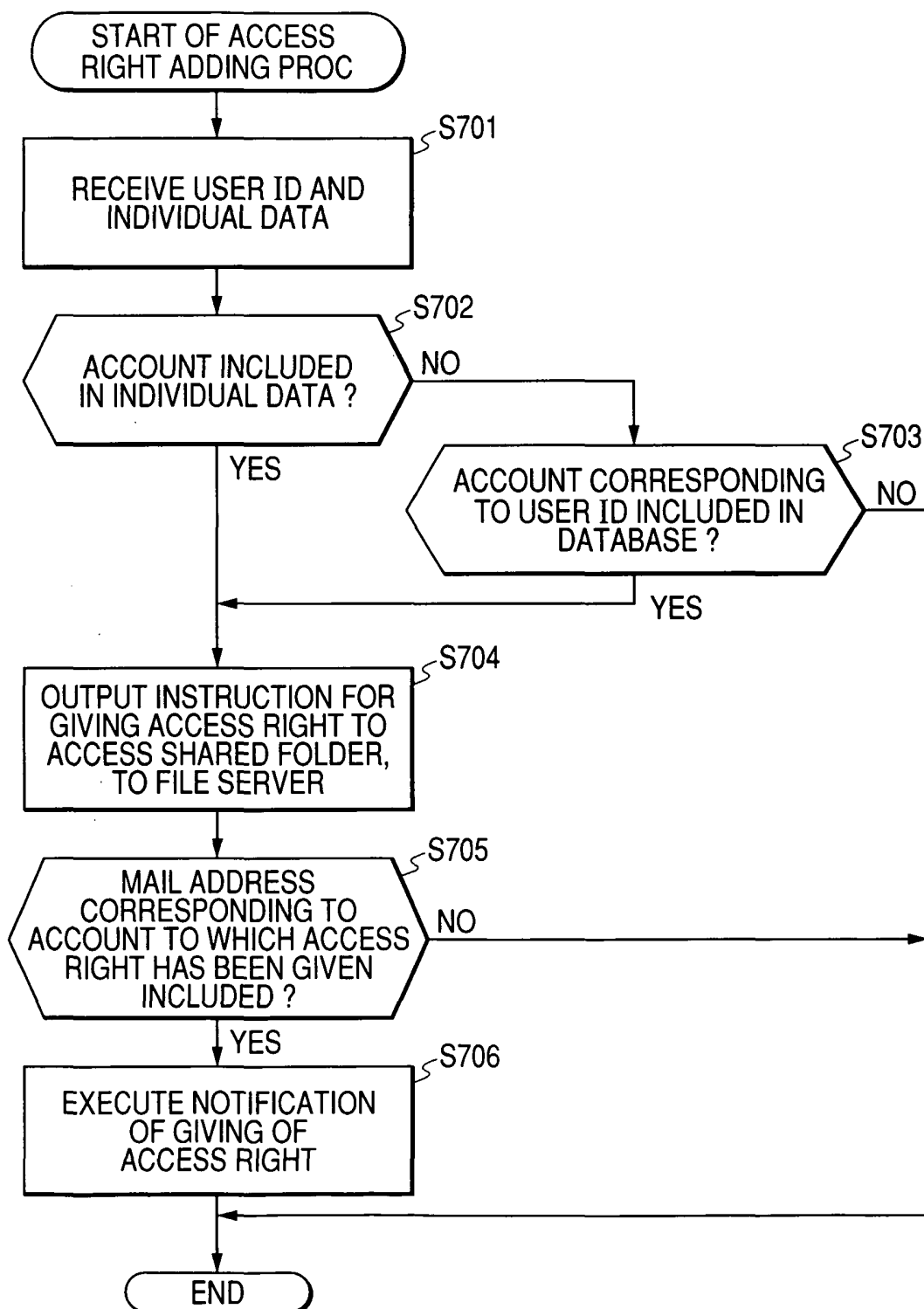


FIG. 8



INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2005/016167

A. CLASSIFICATION OF SUBJECT MATTER

Int.Cl.⁷ **G06Q10/00** (2006.01), **G06F13/00** (2006.01), **G06F21/20** (2006.01), **G06K17/00** (2006.01)

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl.⁷ **G06Q10/00** (2006.01), **G06F13/00** (2006.01), **G06F21/20** (2006.01), **G06K17/00** (2006.01)

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Published examined utility model applications of Japan 1922-1996
 Published unexamined utility model applications of Japan 1971-2005
 Registered utility model specifications of Japan 1996-2005
 Published registered utility model applications of Japan 1994-2005

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	JP 4-260165 A (TOSHIBA CORP.) 1992.09.16, whole document (no family)	1-15
Y	JP 2003-196208 A (CASIO COMPUTER CO. LTD.) 2003.07.11, whole document (no family)	1-15
Y	JP 2004-240942 A (HITACHI LTD.) 2004.08.26, paragraph 0099-0152, fig. 1-15 (no family)	1-15
Y	JP 5-94389 A (NEC CORP., KYUSHU NIPPON DENKI SOFTWARE KK) 1993.04.16, whole document (no family)	5-9, 11-12, 14-15

☐ Further documents are listed in the continuation of Box C.☐ See patent family annex.

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"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

31.10.2005

Date of mailing of the international search report

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