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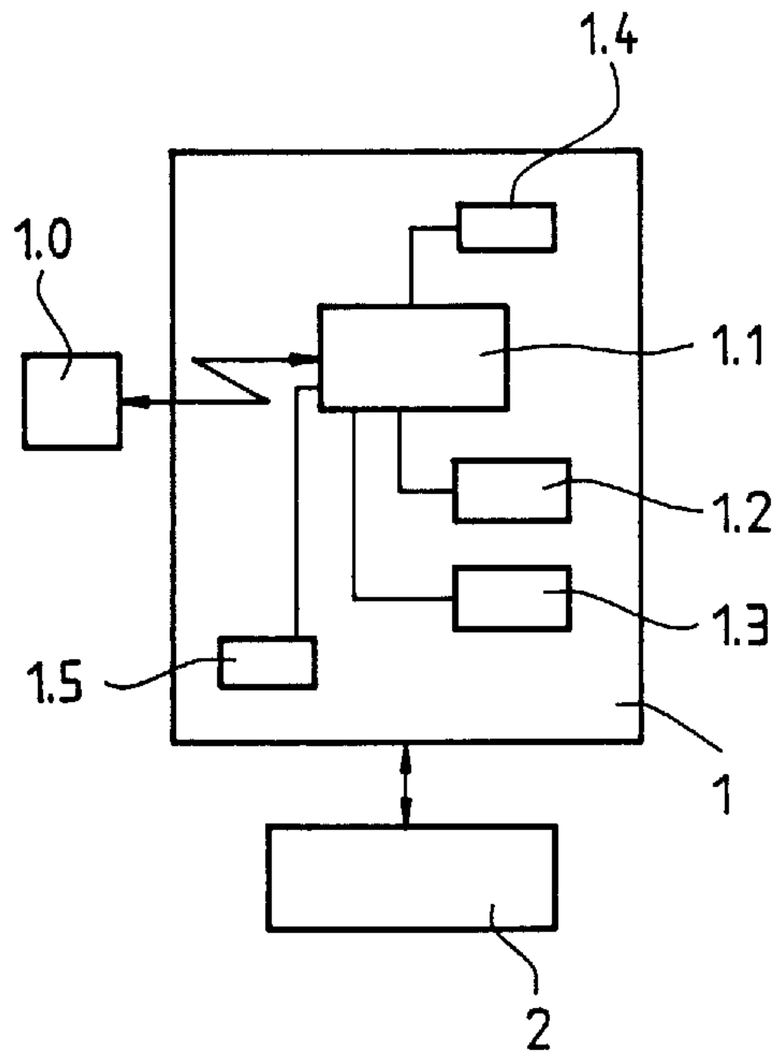
(54) **METHODE DE COMMUNICATION AVEC UN SYSTEME DE TRANSPORT**

(54) **METHOD FOR COMMUNICATION WITH TRANSPORT SYSTEM**



(57) In this man/machine interface (1) a control unit (1.1) constantly checks for the presence of contactlessly communicating information carriers (1.0). If a user with an information carrier (1.0) is located in the reception range, the control unit (1.1) requires the information carrier (1.0) to transfer at least identification data of the user to the control unit (1.1). An individual communication surface matched to the respective user is generated on the basis of the data.

Summary:

In this man/machine interface (1) a control unit (1.1) constantly checks for the presence of contactlessly communicating information carriers (1.0). If a user with an information carrier (1.0) is located in the reception range, the control unit (1.1) requires the information carrier (1.0) to transfer at least identification data of the user to the control unit (1.1). An individual communication surface matched to the respective user is generated on the basis of the data.

(Fig. 2)

DESCRIPTION

Method for communication with a transport system

The invention relates to a method for communication with a transport system in which at least one man/machine interface is provided for the input of travel destinations and for user information.

Equipment which enables an implicit input of destination calls in lift installations has become known from the specification EP 0 699 618 A1. An information transmitter transmits data after a corresponding request of a recognition device. These data can contain direct items of information about the desired destination storey or serve for the identification of the lift user. The destination storey is evaluated in a processing unit on the basis of the received data and delivered to a lift control. The allocation of the destination storey to the lift cage with the best possible travel conditions is made known to the user on a display.

A disadvantage of the known equipment consists in that the information content of the information transmitter and the display is relatively limited and offers no possibility of immediate adaptation.

Here, the invention will create a remedy. The invention, as it is characterised in claim 1, meets the object of avoiding the disadvantages of the known equipment and of proposing a method which individually matches the possibilities for use of a transport system to each user.

The advantages achieved by the invention are essentially to be seen in that the man/machine communication can be matched to the needs of each user. The communication tailored to the user facilitates access for the user to the transport system. The user can more easily orientate himself on the basis of the individual, personal communication. Moreover, the user can be supplied with individual information concerning the use and also with other information.

The invention is more closely explained in the following by reference to drawings illustrating an example of embodiment, in which:

Fig. 1 shows a transport system with several vehicles,

Fig. 2 shows a man/machine interface and

Figs. 3 and 4 show the man/machine interface for the imparting of information.

A man/machine interface, by means of which a user is identified by his individual data and by means of which a user makes known his travel destination to a control 2 of a transport system, is denoted by 1 in Figs. 1 to 4. The control 2, which essentially consists of a computer and a memory, has access to a table 3 with the actual location particulars of the travel destinations and the symbols associated with the location particulars. The transport system can be, for example, a lift system with at least one lift shaft in which several vehicles or lift cages run with a high degree of autonomy, wherein the movement direction can be vertical and/or horizontal. In the simplest case the transport system consists of a lift with one or more lift cages, wherein a respective lift cage runs per lift shaft. Drive units 4 for control and power supply of the vehicles 5 or lift cages are connected to the control 2.

Fig. 2 shows a man/machine interface 1 with a control unit 1.1 with computer and working memory, a touch screen 1.2, an audio unit 1.3, a memory 1.4 and optionally a card reader 1.5. A respective information carrier 1.1, which can come into connection with the control unit 1.1, is provided per user. The information carrier 1.0 can contactlessly communicate with the control unit 1.1 or, in the case of the card reader 1.5, can transfer data of the user to or from the control unit 1.1 by an information card, which is not shown. A keyboard with, for example, touch buttons and a display screen can also be provided instead of the touch screen 1.2.

The control unit 1.1 constantly checks for the presence of contactlessly communicating information carriers 1.0. If a user with an information carrier 1.0 is located in the reception range, the control unit 1.1 requires the information carrier 1.0 to transfer at least identification data of the user to the control unit 1.1. An individual communication surface is generated on the basis of the data.

The information carrier 1.0 can also contain information about the objects brought along with the user, such as for example shopping trolleys, beds, etc. The serving of the user is then carried out on the basis of the additional information.

A biometric method can also be used for identification of the user, wherein the user is unambiguously identified on the basis of, for example, fingerprint, handprint, facial outlines, retinal or iris structure, or speech.

Fig. 3 shows the touch screen 1.2 with a communication surface for, for example, a teacher of a high school. Actual location particulars such as, for example, numerical storey details, are replaced by symbols. The teacher is authorised for access to the shown premises. If the user is a student or person from outside, access can be restricted in simple manner to specific storeys or travel destinations. Then merely "lecture rooms", "library" and "enrolment" appear on the communication surface of the touch screen 1.2.

In the case of use of the man/machine interface according to the invention in a hospital, a communication surface can, for example, be made available for legitimate users such as, for example, doctors or nursing staff. In the case of, for example, bed transport a communication surface can be made available which enables a statement of the requirement for space or special trips for emergency cases.

In the case of use of the man/machine interface in a hotel, a communication surface can, for example, be made available by means of which the hotel guest is provided with further information such as, for example, activities for VIP guests, the menu or that the guest concerned is expected in the bar. Information such as, for example, advertising, communications to other users, information for assistance of users, references to other transportation, etc., can be communicated to the user by means of the touch screen 1. The user can also deposit information for other users by means of the touch screen 1.2.

A communication surface can be made available to authorised persons such as, for example, maintenance personnel and assists the informatory or diagnostic functions or the maintenance or the easing of the transport system.

The communication surface can be designed in different manner according to the respective user. Instead of the illustrated bars according to Fig. 3, there can be

represented, for example, a synopsis of the transport system on which the travel destinations are selectable and/or on which the instantaneous positions of the vehicles are shown. The identification data of the user also contains details of, for example, handicaps of the user. The communication surface is extended for a visually handicapped user by switching on of the audio unit 1.3, wherein the control unit 1.1 verbally communicates with the user or the user with the control unit 1.1. The audio unit 1.3 can also be used for background music according to the preference of the respective user.

On the basis of the selected travel destination the control 2 allocates the transport request to the vehicle with the best travel conditions. The user is informed about his vehicle, such as, for example, shown in Fig. 4, by touch screen 1.2 and/or by audio unit 1.3.

The data necessary for generation of the individual communication surface can be filed in a memory 1.4 to which the control unit 1.1 has access. If this data is present on the information carrier 1.0, an explicit identification of the user is not necessary. In a further variant these data can be present partly on the information carrier 1.0 and partly in the memory 1.4. The control unit 1.1 can also transfer information to the information carrier 1.0. Existing data, for example balance of the bank account, can thus also be changed or modified. If appropriate input units are available, the user can himself at least partially configure the information of the information carrier 1.0.

The information obtained by the use of the transport system can also be used for other purposes. For example, a search system for persons can localise the instantaneous user of the transport system, or the habits, which are established by the use of the transport system, of the user can be used for advertising purposes.

The authorised travel destinations of a teacher of a high school are shown on the touch screen 1.2 of Fig. 3 and are individually selectable by contacting the screen 1.2. Further information can be called up by means of window technique or scroll technique. The travel destinations are represented not as actual location particulars, such as for example a storey number, but by means of symbols which describe the travel destination, for example, functionally. The user selects, for example, the conference hall as his travel destination without knowing where the conference hall is actually located. After the selection of the travel destination the control unit 1.1 can call for further information from the user, for example the attendee number.

The control 2 ascertains the actual location particulars by means of the table 3, in which, for example, the actual location statement 'storey 23' is assigned to the symbol 'conference hall'. The control 2 allocates the desired storey to the lift cage with the best travel conditions and informs the user, as shown in Fig. 4, on the touch screen 1. The information comprises the designation of the vehicle, in the present case lift cage D, and a reference to the boarding location, in the present case a directional arrow to the right. The information further comprises, in the case of multi-door lift cages, the door side or, in the case of transport systems with horizontal and/or vertical transport, the co-ordinates of the boarding location.

During travel, the travel destinations which are called at are indicated, wherein the actual location particulars and/or the symbols are used.

The table 3 can be changed over time according to the respective utilisation of the building. If, for example, a room is used as a conference ball during the day and as a ballroom at night, the corresponding symbol is adapted to the use of the room.

Other easily remembered symbols standing in relationship to the travel destination, such as for example names, telephone numbers, pet names for kindergartens, etc., are also possible.

PATENT CLAIMS:

1. Method for communication with a transport system in which at least one man/machine interface is provided for the input of travel destinations and for user information, characterised in that an individual communication surface matched to the respective user is generated on the basis of user-specific data.

2. Method according to claim 1, characterised in that a control unit checks for the presence of an information carrier and requires the information carrier to transfer at least identification data of the user, wherein the individual communication surface is generated on the basis of the user-specific data.

3. Method according to claim 2, characterised in that the communication surface comprises an optical unit and/or an audio unit.

4. Method according to claim 2, characterised in that information specific to travel destination and/or extraneous to travel destination can be communicated between user and transport system by the communication surface.

5. Method according to claim 4, characterised in that for the input of travel destinations and/or for user information, symbols which represent the desired travel destinations in an easily remembered form and which stand in relationship with the travel destinations, are used instead of actual location particulars.

Fig. 1

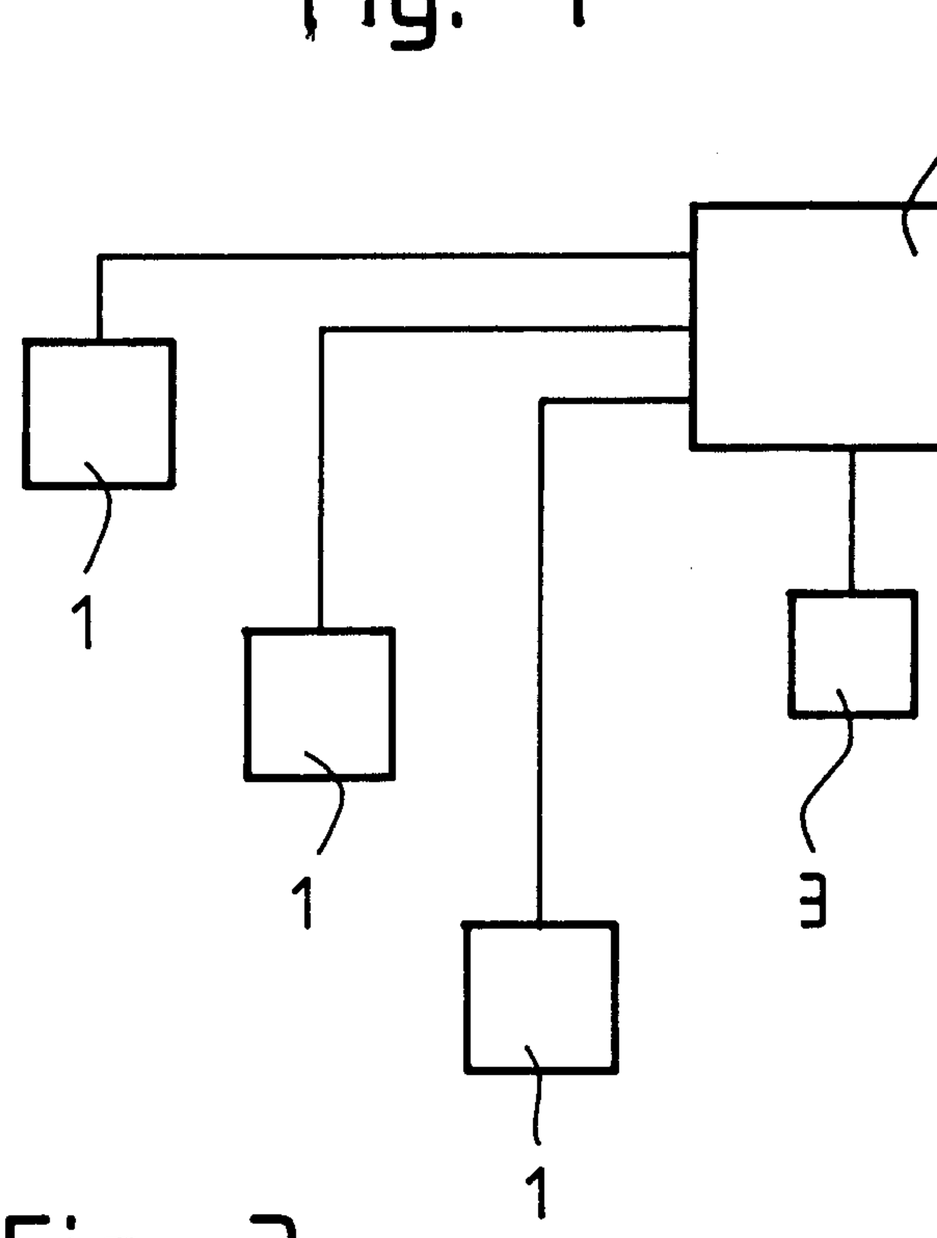


Fig. 3

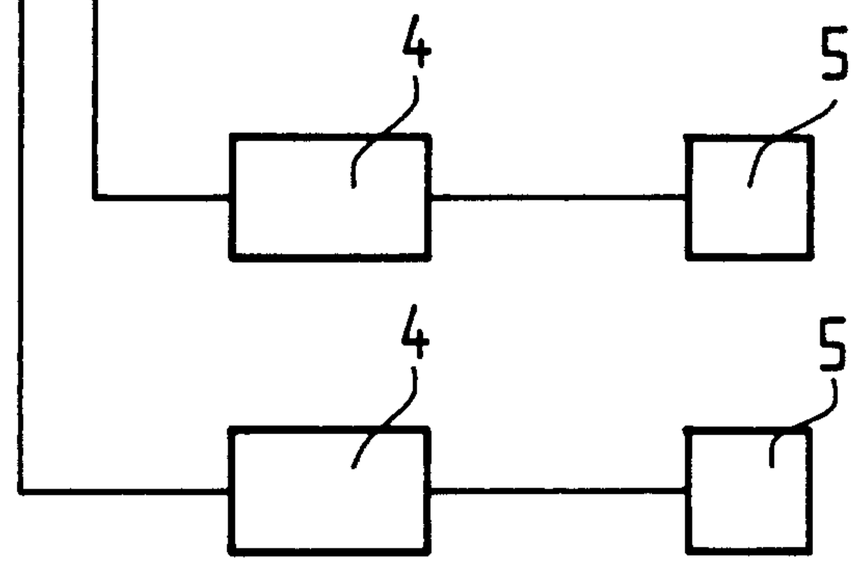


Fig. 2

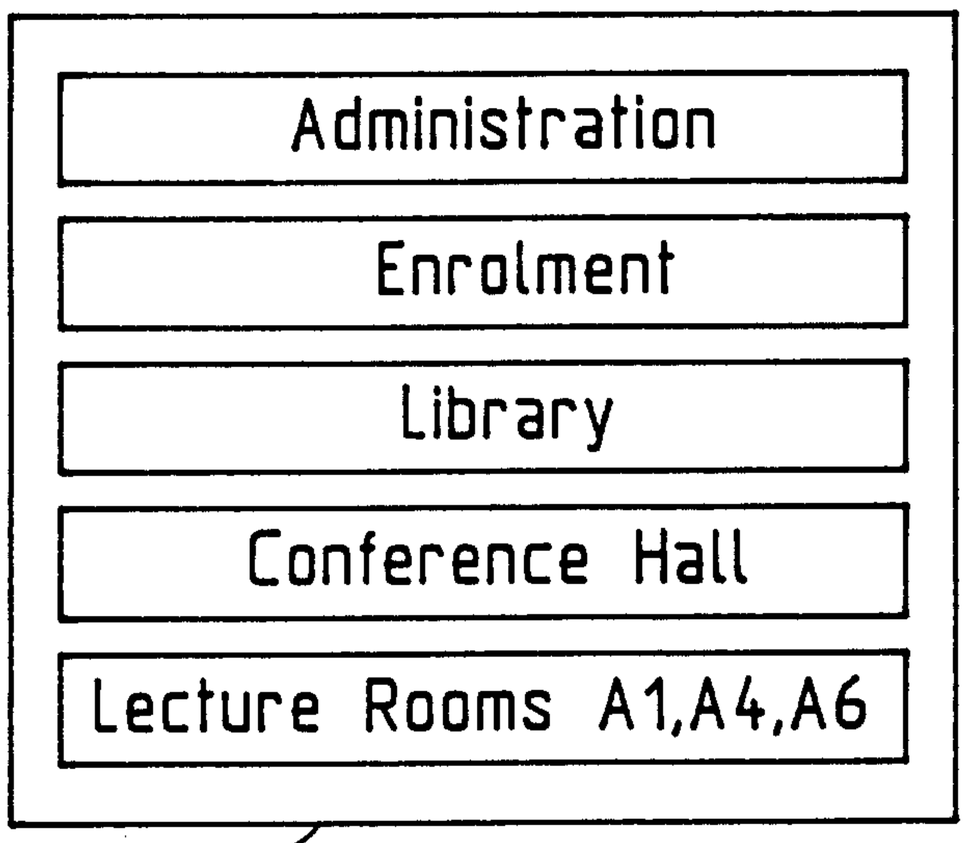
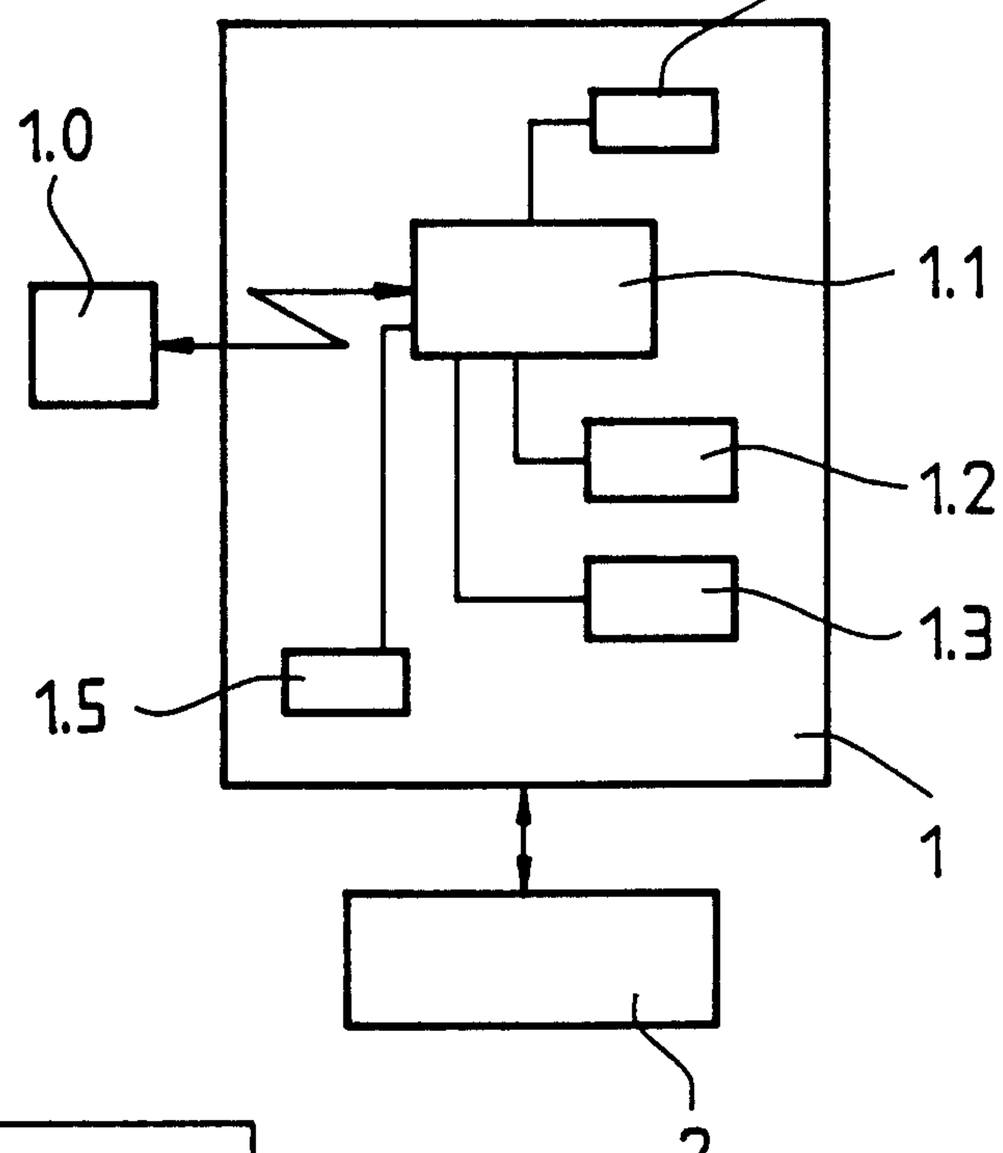
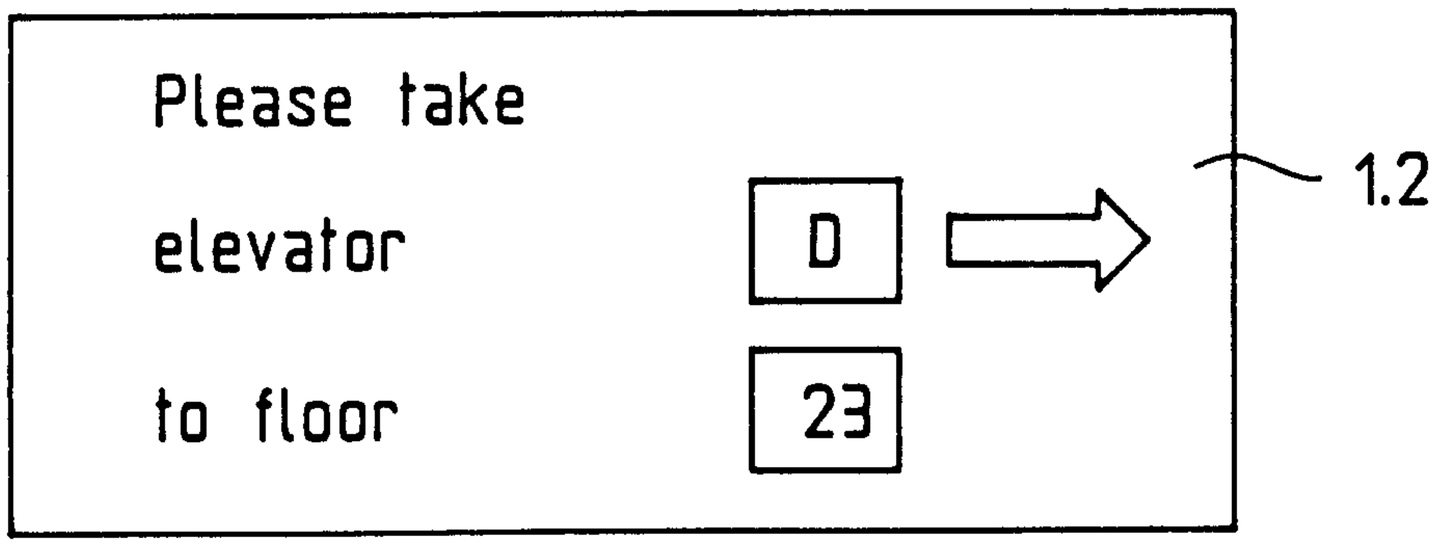
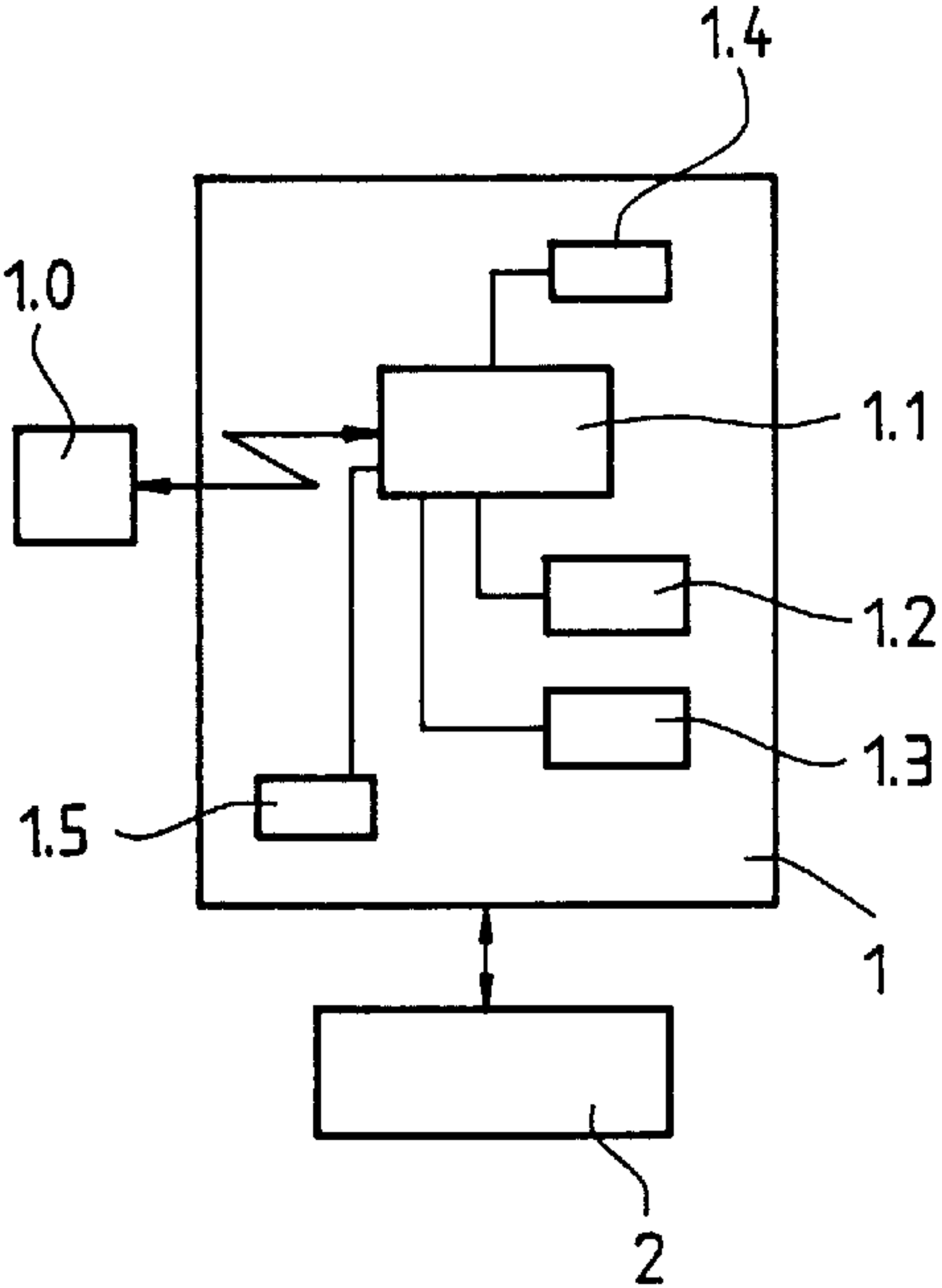


Fig. 4



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