the guest avatar 61 entering the aura 52 of the pilot avatar 51 in comparison with a case in which each object shares pieces of information owned by other objects. (Note that the guest avatar 61 transmits its information to the shared server 12, and the guest avatar 61 will receive information from the shared server 12 depending upon the objects in its aura and their transparency settings.)

[0042] Fig. 10 is an explanatory diagram used for describing an information management table 12a provided in the shared server 12 for each avatar. As shown in Fig. 10, the information management table for an avatar comprises a list of names of objects each having an aura covering the position of the avatar itself, a list of names of objects located in the aura of the avatar, and the avatar's transparency flag having a logic value of either TRUE or FALSE. The contents of the list of names of objects each having an aura including the position of the avatar itself and the list of names of objects located in the aura of the avatar are updated by the shared server 12 in accordance with the behavior of the avatar owning the lists and the movements of the objects on the lists in the 3-dimensional virtual space.

[0043] The shared server 12 does not transmit information owned by an avatar having a TRUE transparency flag to other avatars. When an avatar having a FALSE transparency flag enters or gets included in the aura of another avatar, the shared server 12 transmits information owned by the avatar with a FALSE transparency flag to the other avatar. The setting of a transparency flag can be changed by operating the client PCs 1 to 3 by the users.

[0044] By setting the transparency flag in the information management table of an avatar to a TRUE logic value as described above, the information of the avatar is not transmitted to other objects and, hence, the transmission of information to other avatars can be restricted.

[0045] As an example, the information in the information management table of Fig. 10 will be detailed with reference to Figs. 8 and 9. As shown in Fig. 8, the avatar 61 is included in the aura of the avatar 51 and includes the avatars 51, 63 and 64 in its aura. As shown in Fig. 9, the avatar 61 has a true transparency flag. As shown in Fig. 8, the avatar 51 is included in the aura of the avatar 61 and includes the avatar 61 in its aura, As shown in Fig. 9, the avatar 51 has a false transparency flag.

[0046] Next, processing to share information with other avatars is explained by referring to a flowchart shown in Fig. 11. The processing is started when the shared server 12 is informed of a movement to another location by an avatar (or an object) or is notified of a change in transparency flag of the avatar. As shown in Fig. 11, the flowchart begins with a step S11 in which the shared server 12 carries out departure detection processing to detect an exclusion of an object from the aura of an avatar as will be described later by referring to a flowchart shown in Fig. 12. The flow of the processing then goes on to a step S12 in which the shared server 12 transmits a movement message which was received before the processing of the step S11 to other client PCs. Then, the flow of the processing proceeds to a step S13 in which the shared server 12 carries out inclusion detection processing to detect an inclusion of each object into the aura of an avatar as will be described later by referring to a flowchart shown in Fig. 13.

[0047] Details of the departure detection processing carried out at the step S11 of the flowchart shown in Fig. 11 are explained by referring to the flowchart shown in Figs. 12A-12B as follows. As shown in Fig. 12A, the flowchart begins with a step S21 in which the shared server 12 selects an object located in the aura of the avatar, which is a pilot avatar Z, from those listed in the information management table as an object X. The flow of the processing then goes on to a step S22 in which the shared server 12 forms a judgment as to whether or not all objects located in the aura of the pilot avatar Z as indicated by the information management table have undergone pieces of processing of steps S23 to S26. If all objects located in the aura of the pilot avatar Z as indicated by the information management table have not undergone the pieces of processing of the steps S23 to S26, the flowchart goes on to the step S23. At the step S23, the shared server 12 forms a judgment as to whether or not the object X is located in the aura of the pilot avatar Z, or examines the information management table to find out whether the transparency flag of the pilot avatar Z is TRUE or FALSE. If the object X is not located in the aura of the pilot avatar Z anymore or the transparency flag of the pilot avatar Z is found TRUE, the flow of the processing proceeds to a step S24.

[0048] At the step S24, the shared server 12 deletes the object X from the list of names of objects located in the aura of the pilot avatar Z as shown by the information management table for the pilot avatar Z if the object X is found on the list. The object X needs to be deleted from the list since the object X has been excluded from the aura of the pilot avatar Z, or even if the object X is still included in the aura of the pilot avatar Z, the object X needs to be deleted from the list since the pilot avatar Z is now transparent to the object X. The flow of the processing then continues to a step S25 in which the shared server 12 deletes the pilot avatar Z from the list of names of objects each having an aura covering the position of the object X, if the pilot avatar Z is found on the list. Then, the flow of the processing goes on to the step S26 in which the shared server 12 updates the information management tables of the pilot avatar Z and the object X in accordance with the deletions at the steps S24 and S25, respectively. The flow of the processing then goes back to the step S21.

[0049] If the outcome of the judgment formed at the step S23 indicates that the object X is still located in the aura of the pilot avatar Z and the transparency flag of the pilot avatar Z is found FALSE, on the other hand, the flow of the processing goes back to the step S21, skipping the pieces of processing of the steps S24 to S26.