

the problem of deviation of the stop position of an aircraft in a case where a plurality of passenger boarding bridges are to be attached to the aircraft; and the problem of cost increase. These problems will be described below in detail in Description of Embodiments.

[0006] Embodiments of the present invention have been made in view of such circumstances, and provides an attaching system and an attaching method that make it possible, in the case of attaching a plurality of passenger boarding bridges to an aircraft, to automatically attach the passenger boarding bridges to the aircraft more properly and more easily than the conventional art even if deviation of the stop position of the aircraft occurs.

### **Solution to Problem**

[0007]

According to a first aspect of the present invention, there is provided an attaching system comprising: a first passenger boarding bridge and a second passenger boarding bridge that are provided on a terminal building; a detector provided on the first passenger boarding bridge; and a controller configured to receive an output signal from the detector, wherein after the first passenger boarding bridge is attached to an aircraft and/or while the first passenger boarding bridge is moving before being attached to the aircraft, the controller: acquires position data of the first passenger boarding bridge by using the detector; calculates attaching position data of the second passenger boarding bridge for attachment of the second passenger boarding bridge to the aircraft by using the position data, known data obtained from a fuselage of the aircraft, and known data obtained from the terminal building; and controls automatic attachment of the second passenger boarding bridge to the aircraft based on the attaching position data.

[0007a] According to a second aspect of the present invention, there is provided an attaching method comprising: after a first passenger boarding bridge provided on a terminal building is

attached to an aircraft and/or while the first passenger boarding bridge is moving before being attached to the aircraft, acquiring position data of the first passenger boarding bridge by using a detector; calculating attaching position data of a second passenger boarding bridge provided on the terminal building for attachment of the second passenger boarding bridge to the aircraft by using the position data, known data obtained from a fuselage of the aircraft, and known data obtained from the terminal building; and automatically attaching the second passenger boarding bridge to the aircraft based on the attaching position data.

### **Advantageous Effects of Invention**

[0008] According to embodiments of the present invention, in the case of attaching a plurality of passenger boarding bridges to the aircraft, even if deviation of the stop position of the aircraft occurs, the passenger boarding bridges can be automatically attached to the aircraft more properly and more easily than the conventional art.

### **Brief Description of Drawings**

[0009] Fig. 1 shows one example of a first passenger boarding bridge.

Fig. 2 is a diagram used for describing position data of the first passenger boarding bridge, the position data being detected by a detector.

Fig. 3 is a diagram used for describing known data obtained from the fuselage of an aircraft.