CLAIMS

1. A position locating system comprising:

a plurality of position locating tags provided in an indoor space, the position locating tags being associated with coordinate information corresponding to positions of the position locating tags in the indoor space in advance;

a transceiver provided on a mobile body configured to move in the indoor space, the transceiver being configured to acquire transmission signals transmitted from the position locating tags; and

a processor configured to determine a coordinate position of the mobile body based on:

the transmission signals from the position locating tags acquired by the transceiver and the coordinate information of the position locating tags, and

incident angles of transmission signals transmitted from two of the plurality of position locating tags and the coordinate information of the two of the plurality of position locating tags.

2. The position locating system according to claim 1, wherein

the processor is further configured to determine an unloaded position of a target object transported by the mobile body based on the coordinate position of the mobile body.

3. The position locating system according to claim 2, further comprising:

a height locating tag provided on a vertically moving portion, the vertically moving portion being provided on the mobile body so as to move the target object up and down, wherein

the processor is further configured to determine the unloaded position of the target object in a height direction based on a signal from the height locating tag acquired by the

transceiver.

4. The position locating system according to claim 3, further comprising:

passive tags respectively provided on a plurality of target objects;

a reader provided on the mobile body, the reader being configured to transfer radio waves to the passive tags and to read reflected signals returned from the passive tags; and

a transport target object specifying unit configured to specify a transport target object among the plurality of the target objects based on a difference in a change of a state of the reflected signals from the passive tags read by the reader when the mobile body is moved.

5. The position locating system according to claim 1, wherein

the processor is configured to select the two of the plurality of position locating tags used to determine the coordinate position of the mobile body based on communication quality between the plurality of the position locating tags and the transceiver provided on the mobile body.

6. A position locating method comprising:

a step of acquiring, by a mobile body moving in an indoor space, transmission signals transmitted from a plurality of position locating tags provided in the indoor space, the position locating tags being associated with coordinate information corresponding to positions of the position locating tags in the indoor space in advance; and

a step of determining a coordinate position of the mobile body based on:

the transmission signals transmitted from the position locating tags and the coordinate information of the position locating tags, and

incident angles of transmission signals transmitted from two of the plurality of position locating tags and the coordinate information of the two of the plurality of position locating tags.

7. A non-transitory computer-readable medium storing a program for causing a computer to execute:

a process of acquiring, by a mobile body moving in an indoor space, transmission signals transmitted from a plurality of position locating tags provided in the indoor space, the position locating tags being associated with coordinate information corresponding to positions of the position locating tags in the indoor space in advance; and

a process of determining a coordinate position of the mobile body based on:

the transmission signals transmitted from the position locating tags and the coordinate information of the position locating tags, and

incident angles of transmission signals transmitted from two of the plurality of position locating tags and the coordinate information of the two of the plurality of position locating tags.