Claims

[Claim 1]

An information processing device, comprising:

a movement destination information acquisition unit configured to acquire movement destination information indicating a position of a movement destination;

a route setting unit configured to set a route to the movement destination and a reserved time to pass through the route for a mobile body and another mobile body different from the mobile body based on the movement destination information; and

an event acquisition unit configured to acquire event information indicating that an event unexpected at a time of setting the route has occurred for the mobile body moving along the route, wherein

the route setting unit sets a next route of the mobile body while maintaining the content of the destination information provided by a management device that sets the movement destination information and manages a mechanism other than the mobile body disposed in the facility, when the event information is acquired,

the route setting unit sets the next route of the mobile body and a reserved time to pass through the next route based on the event information,

wherein the reserved time to pass through the next route for the mobile body is set so as not to overlap with the reserved time of the another mobile body to pass through the next route without changing the subsequent reserved time of the another mobile body.

[Claim 2]

The information processing device according to claim 1, wherein the event acquisition unit acquires the event information from the mobile body.

[Claim 3]

The information processing device according to claim 2, wherein

the event acquisition unit acquires, as the event information, information indicating that movement along the route has been completed, and

the route setting unit sets, when the event information indicating that movement along the route has been completed is acquired, a route to an updated movement destination that is a position different from the movement destination.

[Claim 4]

The information processing device according to claim 3, wherein the route setting unit sets the updated movement destination based on a charge amount of the mobile body.

[Claim 5]

The information processing device according to any one of claims 2 to 4, wherein

the event acquisition unit acquires information on a charge amount of the mobile body as the event information, and

the route setting unit sets a route to a charging point when the charge amount of the mobile body is less than a threshold value.

[Claim 6]

The information processing device according to claim 5, wherein the route setting unit sets, to a second mobile body other than a first mobile body whose charge amount is less than the threshold value, a route to a scheduled movement destination of the first mobile body.

[Claim 7]

The information processing device according to claim 6, wherein the route setting unit sets the route to the scheduled movement destination of the first mobile body to, of a plurality of the second mobile bodies, a second mobile body having shortest time to reach the scheduled movement destination of the first mobile body from a movement destination of the second mobile body.

[Claim 8]

The information processing device according to any one of claims 5 to 7, wherein the route setting unit sets, when the charge amount of the mobile body being charged at the charging point is equal to or larger than a predetermined value higher than the threshold value, a route from the charging point of the mobile body.

[Claim 9]

The information processing device according to any one of claims 2 to 8, wherein

the event acquisition unit acquires, as the event information, information indicating that the mobile body has failed, and

the route setting unit sets, when the event information indicating that the mobile body has failed is acquired, a route of another mobile body so as not to pass through a position within a predetermined distance from a position of the mobile body that has failed.

[Claim 10]

The information processing device according to any one of claims 2 to 9, wherein

the event acquisition unit acquires, as the event information, information indicating that an obstacle is present on the route, and

the route setting unit sets, when the event information indicating that the obstacle is present on the route is acquired, a route of a mobile body so as not to pass through a position within a predetermined distance from the obstacle.

[Claim 11]

The information processing device according to any one of claims 2 to 10, wherein

the event acquisition unit acquires, as the event information, information indicating that a deadlock has occurred, and

when the event information indicating that the deadlock has occurred is acquired, the route setting unit sets a route to an updated movement destination that is a position different from the movement destination for some mobile bodies of mobile bodies at which the deadlock has occurred and does not set a next route for the other mobile bodies of the mobile bodies at which the deadlock has occurred.

[Claim 12]

A movement control system, comprising:
the information processing device according to any one of claims 1 to 11; and
the management device.

[Claim 13]
A movement control system, comprising:
the information processing device according to any one of claims 1 to 11; and
the mobile body.

[Claim 14]
An information processing method, comprising:
acquiring movement destination information indicating a position of a movement destination;
setting a route to the movement destination and a reserved time to pass through the route for a mobile body and another mobile body different from the mobile body based on the movement destination information; and
acquiring event information indicating that an event unexpected at a time of setting the route has occurred for the mobile body moving along the route, wherein
in the setting a route,
a next route of the mobile body is set while maintaining the content of the destination information provided by a management device that sets the movement destination information and manages a mechanism other than the mobile body disposed in the facility, when the event information is acquired,
the next route of the mobile body and a reserved time to pass through the next route is set based on the event information,
wherein the reserved time to pass through the next route for the mobile body is set so as not to overlap with the reserved time of the another mobile body to pass through the next route without changing the subsequent reserved time of the another mobile body.

[Claim 15]
A program for causing a computer to perform:
acquiring movement destination information indicating a position of a movement destination;
setting a route to the movement destination and a reserved time to pass through the route for a mobile body and another mobile body different from the mobile body based on the movement destination information; and
acquiring event information indicating that an event unexpected at a time of setting the route has occurred for the mobile body moving along the route, wherein
in the setting a route,
a next route of the mobile body is set while maintaining the content of the destination information provided by a management device that sets the movement destination information and manages a mechanism other than the mobile body disposed in the facility, when the event information is acquired,
the next route of the mobile body and a reserved time to pass through the next route is set based on the event information,

wherein the reserved time to pass through the next route for the mobile body is set so as not to overlap with the reserved time of the another mobile body to pass through the next route without changing the subsequent reserved time of the another mobile body.