Claims

[Claim 1]

An traffic control system comprising:

on-board control units installed on trains that are traveling; and

an on-ground control unit installed on the ground,

wherein the on-board control unit

is installed in each of a plurality of trains whose operations are managed by the traffic control system, and

makes a route request based on a transmitted driving mode, and transmits information on the route request to the on-ground control unit, and

wherein the on-ground control unit controls a route of the train, based on the transmitted route request, and sets a driving interval between the trains.

[Claim 2]

The traffic control system according to claim 1,

wherein the on-board control unit controls driving of the train, based on a traveling position and a traveling speed detected in the train provided with the on-board control unit.

[Claim 3]

The traffic control system according to claim 1 or 2.

wherein the on-board control unit receives the driving mode instructed via the on-ground control unit.

[Claim 4]

The traffic control system according to any one of claims 1 to 3,

wherein the on-board control unit sets a driving path of the train provided with the on-board control unit, based on a departure time and a destination of another preceding train, transmitted from the on-ground control unit.

[Claim 5]

The traffic control system according to any one of claims 1 to 3,

wherein the on-board control unit sets a driving path of the train provided with the on-board control unit, based on a transmitted destination.

[Claim 6]

The traffic control system according to any one of claims 1 to 5,

wherein, when a driving path is set in which the train provided with the on-board control unit performs a turning-

back driving, the on-board control unit makes a route request for the route to turn back, and when the route request is made, the on-board control unit makes a route request for a branch route leading to the route to turn back.

[Claim 7]

The traffic control system according to claim 6,

wherein, when the train provided with the on-board control unit passes, the on-board control unit cancels the route request for the route, but regarding the branch route, even when the train provided with the on-board control unit passes, the on-board control unit maintains the route request only for a predetermined period, and then, cancels the route request.

[Claim 8]

A traffic control system comprising:

on-board control units installed on trains that are traveling; and

an on-ground control unit installed on the ground,

wherein the on-board control unit

is installed in each of a plurality of trains whose operations are managed by the traffic control system, and

makes a route request based on a transmitted

driving mode, and transmits information on the route request to the on-ground control unit, and

wherein the on-ground control unit controls a route of the train, based on the transmitted route request,

wherein the on-board control unit sets a driving path of the train provided with the on-board control unit, based on a departure time and a destination of another preceding train, transmitted from the on-ground control unit.

[Claim 9]

A traffic control system comprising:

on-board control units installed on trains that are traveling; and

an on-ground control unit installed on the ground,

wherein the on-board control unit

is installed in each of a plurality of trains whose operations are managed by the traffic control system, and

makes a route request based on a transmitted driving mode, and transmits information on the route request to the on-ground control unit,

wherein, when a driving path is set in which the train provided with the on-board control unit performs a turning-back driving, the on-board control unit makes a route

request for the route to turn back, and when the route request is made, the on-board control unit makes a route request for a branch route leading to the route to turn back.

[Claim 10]

The traffic control system according to claim 9,

wherein, when the train provided with the on-board control unit passes, the on-board control unit cancels the route request for the route, but regarding the branch route, even when the train provided with the on-board control unit passes, the on-board control unit maintains the route request only for a predetermined period, and then, cancels the route request.