Claims

[Claim 1]

A construction work planning support device comprising:

a first planning support processing element configured to recognize a space occupancy mode of a building, topography of an area around the building and a space occupancy mode when lifting a material as a suspended load;

a type selection support processing element configured to determine, based on the space occupancy mode of the building, the topography of a specified place included in the area around the building as a height of the ground of a place where the crane is arranged with reference to a height of the ground where the building stands, or the height of the ground of the place where the crane is arranged with reference to the height of the ground where the building stands and an inclination angle to the horizontal direction of the ground where the crane is arranged in a virtual space and the space occupancy mode of the material recognized by the first planning support processing element, presence/absence of a crane of a type satisfying specified conditions including a first specified condition of having such a load-lifting level that an interval between an upper end of the building and a lower end of the material is equal to or larger than a threshold in a state where the crane is arranged at the specified place and an attachment is in a specified posture; and

a second planning support processing element configured to make an output interface output information regarding a determination result by the type selection support processing element.

[Claim 2]

The construction work planning support device according to claim 1,

wherein the type selection support processing element determines, based on the space occupancy mode of the building and a space coordinate value of the specified place recognized by the first planning support processing element, presence/absence of the crane of the type satisfying the specified conditions further including a second specified condition of having a working radius that includes the building in the state where the crane is arranged at the specified place and a posture of the attachment is the specified posture.

[Claim 3]

The construction work planning support device according to claim 1 or 2,

wherein the first planning support processing element further recognizes a spatial margin around the material, and

the type selection support processing element determines sufficiency of the first specified condition, based on the spatial margin in addition to the space occupancy mode of the building, the topography of the specified place included in the area around the building and the space occupancy mode of the material recognized by the first planning support processing element.

[Claim 4]

The construction work planning support device according to any one of claims 1-3,

wherein the first planning support processing element further recognizes mass of the material, and

the type selection support processing element determines presence/absence of the crane of the type satisfying the specified conditions further including a third specified condition of having a rated load equal to or larger than the mass of the material recognized by the first planning support processing element.

[Claim 5]

The construction work planning support device according to any one of claims 1-4,

wherein the first planning support processing element further recognizes mass of the material, and

the type selection support processing element determines presence/absence of the crane of the type satisfying the specified conditions further including a fourth specified condition of having a hook corresponding to the mass of the material.

[Claim 6]

The construction work planning support device according to any one of claims 1-5,

wherein the type selection support processing element determines presence/absence of a combination of the crane of the type satisfying the specified conditions and the specified place, and

the second planning support processing element makes the output interface output information regarding the combination of the crane of the type and the specified place, when it is determined by the type selection support processing element that the combination of the crane of the type satisfying the specified conditions and the specified place is present.

[Claim 7]

The construction work planning support device according to claim 6,

wherein the first planning support processing element recognizes the specified place inputted through an input interface, and

the type selection support processing element determines presence/absence of the combination of the crane of the type satisfying the specified conditions and a new specified place, when it is determined that the crane of the type satisfying the specified conditions is not present for the specified place recognized by the first planning support processing element.

[Claim 8]

The construction work planning support device according to any one of claims 1-7,

wherein the second planning support processing element makes the output interface output the space occupancy mode of the building and the space occupancy mode when lifting the material, and

the first planning support processing element recognizes the specified place or the topography of the specified place inputted through an input interface by a user in contact with the output interface.