[DESCRIPTION]
[Title of Invention] SPACE PROPOSAL SYSTEM AND SPACE PROPOSAL METHOD

[Technical Field]
[0001]
The present invention relates to a space proposal system and a space proposal method.

[Background Art]
[0002]
Techniques relating to evaluations of buildings such as a home have been conventionally proposed. Patent Literature (PTL) 1 discloses a housing analytic diagnosis system that analyzes, according to a predetermined standard, measured data obtained by conducting a diagnosis of housing equipment and the like to classify the measured data into a plurality of stages, to arrange classified contents into a predetermined format, and to output the result.

[Citation List]
[Patent Literature]
[0003]
[PTL 1] Japanese Unexamined Patent Application Publication No. 2002-317560

[Summary of Invention]
[Technical Problem]
[0004]
Embodiments of the present invention provide a space proposal system and a space proposal method which are capable of aiding in designing a space that meets a predetermined criterion.

[Solution to Problem]
[0005]
According to a first aspect of the present invention, there is provided a space proposal system including: a first obtainer that obtains space design data indicating a state of a design space; a calculator that calculates a spatial distribution of environmental information in the design space, based on the space design data; and a determiner that determines whether the spatial distribution calculated satisfies a determination criterion used for environmental certification for a physical space.

[0006]

According to a second aspect of the present invention, there is provided a space proposal method including: obtaining space design data indicating a state of a design space; calculating a spatial distribution of environmental information in the design space, based on the space design data; and determining whether the spatial distribution calculated satisfies a determination criterion used for environmental certification for a physical space.

[0006a]

According to a third aspect of the present invention, there is provided a program for causing a computer to execute the above space proposal method.

[Advantageous Effects of Invention]

[0007]

A space proposal system and a space proposal method according to embodiments of the present invention are capable of aiding in designing a space that meets a predetermined criterion.

[Brief Description of Drawings]

[0008]

[FIG. 1]

FIG. 1 is a block diagram illustrating a functional configuration of a space proposal system according to Embodiment 1.

[FIG. 2]

FIG. 2 is a flowchart illustrating operation performed by the space proposal system according to Embodiment 1.

[FIG. 3]

FIG. 3 is a diagram illustrating an example of a display screen showing that an environment in a design space satisfies a determination criterion for an evaluation point of the WELL certification.

[FIG. 4]

FIG. 4 is a diagram illustrating an example of a display screen showing a proposal to change a position of an air conditioner.

[FIG. 5]

FIG. 5 is a diagram illustrating an example of a display screen showing advices on a design change.

[FIG. 6]

CLAIMS

1. A space proposal system comprising:

a first obtainer that obtains space design data indicating a state of a design space;

a calculator that calculates a spatial distribution of environmental information in the design space, based on the space design data; and

a determiner that determines whether the spatial distribution calculated satisfies a determination criterion used for environmental certification for a physical space.

2. The space proposal system according to claim 1, wherein

the calculator calculates the spatial distribution of predicted mean vote (PMV) in the design space, based on the space design data, and

the determiner determines whether the spatial distribution of the PMV calculated satisfies the determination criterion used for the environmental certification for the physical space.

3. The space proposal system according to claim 1, wherein

in the determination criterion, the environmental information that falls within a range of predetermined values in an area of a predetermined proportion within the design space is defined as a requirement for satisfying the determination criterion.

4. The space proposal system according to claim 1, further comprising:

a presenter that presents a proposal to modify the space design data, when the determiner determines that the environment in the design space fails to satisfy the determination criterion.

5. The space proposal system according to claim 4, wherein

the space design data includes device data about a device which is provided in the design space for controlling the environment,

and

the presenter presents, as the proposal to modify the space design data, a change of a position of the device in the design space.

6. The space proposal system according to claim 4, wherein

the space design data includes device data about a device which is provided in the design space for controlling the environment, and

the presenter presents, as the proposal to modify the space design data, replacement of the device in the design space by another device, or addition of a device to the design space.

7. The space proposal system according to claim 1, wherein

the space design data includes device data about a device which is provided in the design space for controlling the environment, and

the space proposal system further comprises:

a second obtainer that obtains a measured value of the environmental information in a physical space created based on conforming space design data that is the space design data for the design space determined to satisfy the determination criterion by the determiner; and

an outputter that outputs control information indicating a control method for controlling the device provided in the physical space for approximating the measured value of the environmental information which is obtained to a design value determined by the spatial distribution calculated based on the conforming space design data.

8. The space proposal system according to claim 7, wherein

the outputter outputs the control information to a control device that controls the device provided in the physical space.

9. The space proposal system according to claim 7 or 8, wherein

the outputter:

generates the control information based on a difference between the measured value of the environmental information which is obtained and the design value; and

outputs the control information, when the spatial distribution recalculated using the control information generated is determined to satisfy the determination criterion.

10. A space proposal method comprising:

obtaining space design data indicating a state of a design space;

calculating a spatial distribution of environmental information in the design space, based on the space design data; and

determining whether the spatial distribution calculated satisfies a determination criterion used for environmental certification for a physical space.

11. A program for causing a computer to execute the space proposal method according to claim 10.