memory, a microprocessor, or the like) within a practical time, because of so-called combinational explosion.

[0028]

Further, by solving the optimization problem as described above, it is possible to obtain only one pair of values of parameters μk and σk that almost satisfy a required condition, namely, only one risk profile. Therefore, in order to generate many risk profiles that almost satisfy the required condition b, it is necessary to solve many optimization problems as described above. Accordingly, it is extremely difficult to generate many risk profiles that almost satisfy a required condition with a realistic resource within a practical time.

SUMMARY

[0029]

Embodiments~~An object of~~ the present invention ~~is to~~ provide a risk profile generation device that solves the aforementioned problem, namely, a problem that it is practically difficult to generate many risk profiles satisfying a specific condition.

[0030]

According to a first aspect of the present invention, there is provided a risk profile generation device comprising~~according to an exemplary embodiment of the present invention includes~~:

a memory for storing model information of a risk profile defined by a first parameter set including one or more parameters, model information of a probability distribution of the first parameter set defined by a second parameter set including one or more parameters, a plurality of required conditions, and weighting factors of the plurality of required conditions;

and

a processor connected to the memory,

wherein the processor is configured to:

calculate a value of the second parameter set such that a risk profile to be specified by applying a value of the first parameter set generated in accordance with the probability distribution to the model information of the risk profile satisfies the required conditions with a higher probability, for each of the required conditions;

generate a probability distribution of the first parameter set from the value of the second parameter set calculated for each of the required conditions, the weighting factors, and the model information of the probability distribution; and

generate a value of the first parameter set in accordance with the generated probability distribution of the first parameter set.

[0031]

According to a second aspect of the present invention, there is provided~~Further,~~ a risk profile generation method ~~according to another exemplary embodiment of the present invention is a risk profile generation method~~ executed by a risk profile generation device including: a memory for storing model information of a risk profile defined by a first parameter set including one or more parameters, model information of a probability distribution of the first parameter set defined by a second parameter set including one or more parameters, a plurality of required conditions, and weighting factors of the plurality of required conditions; and a processor connected to the memory.

The risk profile generation method includes, by the processor:

calculating a value of the second parameter set such that a risk profile to be specified

by applying a value of the first parameter set generated in accordance with the probability distribution to the model information of the risk profile satisfies the required conditions with a higher probability, for each of the required conditions;

generating a probability distribution of the first parameter set from the value of the second parameter set calculated for each of the required conditions, the weighting factors, and the model information of the probability distribution; and

generating a value of the first parameter set in accordance with the generated probability distribution of the first parameter set.

[0032]

With the abovementioned configurations, embodiments of the present invention makes it possible to generate many risk profiles that almost satisfy a specific condition with a realistic resource within a practical time.

BRIEF DESCRIPTION OF DRAWINGS

[0033]

Fig. 1 is a block diagram of a first exemplary embodiment of the present invention;

Fig. 2 is a view showing an example of input information in the first exemplary embodiment of the present invention;

Fig. 3 is a view showing an example of interim information in the first exemplary embodiment of the present invention;

Fig. 4 is a view showing an example of output information in the first exemplary embodiment of the present invention;