Claims

[Claim 1] An abnormality determination system, comprising:

an index acquisition module configured to acquire an index usable in abnormality determination about an occurrence of abnormality in a service providing system for providing a predetermined service;

a plan data acquisition module configured to acquire plan data about a plan of the predetermined service; and

an abnormality determination module configured to execute the abnormality determination based on the index and the plan data,

wherein the abnormality determination module is configured to:

determine an abnormality determination criterion about the abnormality determination based on the plan data;

execute the abnormality determination based on the determined abnormality determination criterion and the index; and

determine the abnormality determination criterion based on a relationship between a condition about the plan data and the abnormality determination criterion used when the condition is satisfied.

[Claim 2] An abnormality determination system, comprising:

an index acquisition module configured to acquire an index

usable in abnormality determination about an occurrence of abnormality in a service providing system for providing a predetermined service;

a plan data acquisition module configured to acquire plan data about a plan of the predetermined service; and

an abnormality determination module configured to execute the abnormality determination based on the index and the plan data,

wherein the abnormality determination module is configured to:

determine an abnormality determination criterion about the abnormality determination based on the plan data;

execute the abnormality determination based on the determined abnormality determination criterion and the index; and

determine the abnormality determination criterion based on the plan data and a learning model that has learned a relationship between the plan data for training and the abnormality determination criterion.

[Claim 3] An abnormality determination system, comprising:

an index acquisition module configured to acquire an index usable in abnormality determination about an occurrence of abnormality in a service providing system for providing a predetermined service;

a plan data acquisition module configured to acquire plan

data about a plan of the predetermined service;

an abnormality determination module configured to execute the abnormality determination based on the index and the plan data; and

execute the abnormality determination based on the index and a learning model that has learned a relationship between the index for training and an abnormality determination result about an occurrence of the abnormality.

[Claim 4] An abnormality determination system, comprising:

an index acquisition module configured to acquire an index usable in abnormality determination about an occurrence of abnormality in a service providing system for providing a predetermined service;

a plan data acquisition module configured to acquire plan data about a plan of the predetermined service; and

an abnormality determination module configured to execute the abnormality determination based on the index and the plan data,

wherein the service providing system is a system for providing a plurality of services each of which is the predetermined service,

wherein the index acquisition module is configured to acquire the index of each of the plurality of services,

wherein the plan data acquisition module is configured to acquire the plan of each of the plurality of services, and

wherein the abnormality determination module is configured to execute the abnormality determination of at least one of the plurality of services based on the index of each of the plurality of services, and the plan of each of the plurality of services.

[Claim 5] The abnormality determination system according to any one of claims 1 to 4,

wherein the plan data indicates a campaign time in which a campaign related to the predetermined service is run, and

wherein the abnormality determination module is configured to execute the abnormality determination based on the index and the campaign time indicated by the plan data.

[Claim 6] The abnormality determination system according to any one of claims 1 to 5,

wherein the plan data indicates a maintenance time in which maintenance related to the predetermined service is performed, and

wherein the abnormality determination module is configured to execute the abnormality determination based on the index and the maintenance time indicated by the plan data.

[Claim 7] The abnormality determination system according to claim 2, wherein the abnormality determination module is configured to determine the abnormality determination criterion based on a learning model that has learned the relationship based

on past performance.

[Claim 8] The abnormality determination system according to claim 3, wherein the abnormality determination module is configured to execute the abnormality determination based on the learning model that has learned the relationship based on past performance.

[Claim 9] The abnormality determination system according to claim 4, wherein the abnormality determination module is configured to execute the abnormality determination for each of the plurality of services that is a target of the abnormality determination, based on a relationship between the index and the plan of the each of the plurality of services and an overall index and plan of the plurality of services.

[Claim 10] The abnormality determination system according to claim 4, wherein the abnormality determination module is configured to execute the abnormality determination for each of the plurality of services that is a target of the abnormality determination, based on a relationship between the index and the plan of the each of the plurality of services and the index and the plan of another of the plurality of services.

[Claim 11] An abnormality determination method, comprising:

an index acquisition step of acquiring an index usable in

abnormality determination about an occurrence of abnormality in a service providing system for providing a predetermined service;

a plan data acquisition step of acquiring plan data about a plan of the predetermined service; and

an abnormality determination step of executing the abnormality determination based on the index and the plan data,

wherein the abnormality determination step is configured to:

determine an abnormality determination criterion about the abnormality determination based on the plan data;

execute the abnormality determination based on the determined abnormality determination criterion and the index; and

determine the abnormality determination criterion based on a relationship between a condition about the plan data and the abnormality determination criterion used when the condition is satisfied.

[Claim 12] An abnormality determination method, comprising:

an index acquisition step of acquiring an index usable in abnormality determination about an occurrence of abnormality in a service providing system for providing a predetermined service;

a plan data acquisition of acquiring plan data about a plan of the predetermined service; and

an abnormality determination step of executing the abnormality determination based on the index and the plan data,

wherein the abnormality determination step is configured to:

determine an abnormality determination criterion about the abnormality determination based on the plan data;

execute the abnormality determination based on the determined abnormality determination criterion and the index; and

determine the abnormality determination criterion based on the plan data and a learning model that has learned a relationship between the plan data for training and the abnormality determination criterion.

[Claim 13] An abnormality determination method, comprising:

an index acquisition step of acquiring an index usable in abnormality determination about an occurrence of abnormality in a service providing system for providing a predetermined service;

a plan data acquisition step of acquiring plan data about a plan of the predetermined service;

an abnormality determination step of executing the abnormality determination based on the index and the plan data; and

execute the abnormality determination based on the index and a learning model that has learned a relationship between the

index for training and an abnormality determination result about an occurrence of the abnormality.

[Claim 14] An abnormality determination method, comprising:

an index acquisition step of acquiring an index usable in abnormality determination about an occurrence of abnormality in a service providing system for providing a predetermined service;

a plan data acquisition step of acquiring plan data about a plan of the predetermined service; and

an abnormality determination step of executing the abnormality determination based on the index and the plan data,

wherein the service providing system is a system for providing a plurality of services each of which is the predetermined service,

wherein the index acquisition step is configured to acquire the index of each of the plurality of services,

wherein the plan data acquisition step is configured to acquire the plan of each of the plurality of services, and

wherein the abnormality determination step is configured to execute the abnormality determination of at least one of the plurality of services based on the index of each of the plurality of services, and the plan of each of the plurality of services.

[Claim 15] A program for causing a computer to function as:

an index acquisition module configured to acquire an index

usable in abnormality determination about an occurrence of abnormality in a service providing system for providing a predetermined service;

a plan data acquisition module configured to acquire plan data about a plan of the predetermined service; and

an abnormality determination module configured to execute the abnormality determination based on the index and the plan data,

wherein the abnormality determination module is configured to:

determine an abnormality determination criterion about the abnormality determination based on the plan data;

execute the abnormality determination based on the determined abnormality determination criterion and the index; and

determine the abnormality determination criterion based on a relationship between a condition about the plan data and the abnormality determination criterion used when the condition is satisfied.

[Claim 16] A program for causing a computer to function as:

an index acquisition module configured to acquire an index usable in abnormality determination about an occurrence of abnormality in a service providing system for providing a predetermined service;

a plan data acquisition module configured to acquire plan

data about a plan of the predetermined service; and

an abnormality determination module configured to execute the abnormality determination based on the index and the plan data,

wherein the abnormality determination module is configured to:

determine an abnormality determination criterion about the abnormality determination based on the plan data;

execute the abnormality determination based on the determined abnormality determination criterion and the index; and

determine the abnormality determination criterion based on the plan data and a learning model that has learned a relationship between the plan data for training and the abnormality determination criterion.

[Claim 17] A program for causing a computer to function as:

an index acquisition module configured to acquire an index usable in abnormality determination about an occurrence of abnormality in a service providing system for providing a predetermined service;

a plan data acquisition module configured to acquire plan data about a plan of the predetermined service;

an abnormality determination module configured to execute the abnormality determination based on the index and the plan data; and

execute the abnormality determination based on the index and a learning model that has learned a relationship between the index for training and an abnormality determination result about an occurrence of the abnormality.

[Claim 18] A program for causing a computer to function as:

an index acquisition module configured to acquire an index usable in abnormality determination about an occurrence of abnormality in a service providing system for providing a predetermined service;

a plan data acquisition module configured to acquire plan data about a plan of the predetermined service; and

an abnormality determination module configured to execute the abnormality determination based on the index and the plan data,

wherein the service providing system is a system for providing a plurality of services each of which is the predetermined service,

wherein the index acquisition module is configured to acquire the index of each of the plurality of services,

wherein the plan data acquisition module is configured to acquire the plan of each of the plurality of services, and

wherein the abnormality determination module is configured to execute the abnormality determination of at least one of the plurality of services based on the index of each of the plurality of services, and the plan of each of the plurality of services.