

Solution to Problem

[0006]

According to a first aspect of the present invention, there is provided a display device that displays an index related to operation of a plant, wherein an operation ratio related to the operation of the plant is displayed as the index in a selected period, and a power generation end efficiency that is an efficiency of the entire plant and an efficiency of a component included in the plant are further displayed in a superimposed manner.

[0007]

According to the above aspect, the operation ratio related to the operation of the plant can be shown to an operator.

[0008]

According to a second aspect of the present invention, there is provided a control device that controls a display device that displays an index related to operation of a plant, the control device including: an acquisition unit that acquires process data of the plant; a calculation unit that calculates an operation ratio related to the operation of the plant as the index related to the operation of the plant, a power generation end efficiency that is an efficiency of the entire plant, and an efficiency of a component included in the plant based on the acquired process data; and a display control unit that displays the calculated operation ratio on the display device, wherein the display control unit further displays the calculated power generation end efficiency and the calculated efficiency of the component in a superimposed manner on the display device.

[0009]

According to the above aspect, the operation ratio related to the operation of the plant calculated based on the acquired process data of the plant can be shown to the operator.

[0010]

According to a third aspect of the present invention, there is provided a control method of controlling a display device that displays an index related to operation of a plant, the control method including: an acquisition step of acquiring process data of the plant; a calculation step of calculating an operation ratio related to the operation of the plant as the index related to the operation of the plant, a power generation end efficiency that is an efficiency of the entire plant, and an efficiency of a component included in the plant based on the acquired process data; a display step of displaying the calculated operation ratio on the display device; and a display step of displaying the calculated power generation end efficiency and the calculated efficiency of the component in a superimposed manner on the display device.

[0011]

According to the above aspect, the operation ratio related to the operation of the plant calculated based on the acquired process data of the plant can be shown to the operator.

[0012]

According to a fourth aspect of the present invention, there is provided a computer-readable storage medium stores computer program causing a computer to execute: an acquisition step of acquiring process data of a plant;

a calculation step of calculating an operation ratio related to operation of the plant as an index related to the operation of the plant, a power generation end efficiency that is an efficiency of the entire plant, and an efficiency of a component included in the plant based on the acquired process data; a display step of displaying the calculated operation ratio on a display device; and a display step of displaying the calculated power generation end efficiency and the calculated efficiency of the component in a superimposed manner on the display device.

[0013]

According to the above aspect, the operation ratio related to the operation of the plant calculated based on the acquired process data of the plant can be shown to the operator.

[0014]

Arbitrary combinations of the above components, and substitution of the components and expressions of the present invention with each other among a method, a device, a system, a computer program, a data structure, a recording medium, and the like are also valid as an aspect of the present invention.

Advantageous Effects of Invention

[0015]

According to embodiments of the present invention, the operation ratio related to the operation of the plant can be shown to the operator.

Brief Description of Drawings

[0016]

CLAIMS

1. A display device that displays an index related to operation of a plant,

wherein an operation ratio related to the operation of the plant is displayed as the index in a selected period, and

a power generation end efficiency that is an efficiency of the entire plant and an efficiency of a component included in the plant are further displayed in a superimposed manner.

2. The display device according to claim 1,

wherein the operation ratio is an operation ratio counted for each selected cycle.

3. The display device according to claim 1 or 2,

wherein the operation ratio is calculated based on an operation period in which the plant is in operation and on a planned operation period in which the operation of the plant is planned.

4. The display device according to any one of claims 1 to 3,

wherein the operation ratio includes at least any of a boiler operation ratio that is an operation ratio of a boiler included in the plant, a turbine operation ratio that is an operation ratio of a turbine included in the plant, and a plant operation ratio that is an operation ratio of the entire plant.

5. The display device according to any one of claims 1 to 4,

wherein the display device further displays an efficiency related to the operation of the plant in real time as the index related to the operation of the plant.

6. The display device according to claim 5,

wherein the display device displays the efficiency in a predetermined period before a predetermined time elapses from the predetermined period.

7. The display device according to claim 5 or 6,

wherein the efficiency of the component includes at least any of a boiler efficiency that is an efficiency of a boiler included in the plant, and a turbine room efficiency that is an efficiency of a turbine included in the plant.

8. The display device according to any one of claims 5 to 7,

wherein the display device displays a plurality of the efficiencies.

9. The display device according to claim 8,

wherein the display device displays the plurality of the efficiencies on a superimposed axis.

10. A control device that controls a display device that displays an index related to operation of a plant, the control device comprising:

an acquisition unit that acquires process data of the plant;

a calculation unit that calculates an operation ratio related to the operation of the plant as the index related to the operation of the plant, a power generation end efficiency that is an efficiency of the entire plant, and an efficiency of a component included in the plant based on the acquired process data; and

a display control unit that displays the calculated operation ratio on the display device, wherein

the display control unit further displays the calculated power generation end efficiency and the

calculated efficiency of the component in a superimposed manner on the display device.

11. The control device according to claim 10, further comprising:

a reception unit that receives a selection of a period,

wherein the display control unit displays the operation ratio in the selected period on the display device.

12. A control method of controlling a display device that displays an index related to operation of a plant, the control method comprising:

an acquisition step of acquiring process data of the plant;

a calculation step of calculating an operation ratio related to the operation of the plant as the index related to the operation of the plant, a power generation end efficiency that is an efficiency of the entire plant, and an efficiency of a component included in the plant based on the acquired process data;

a display step of displaying the calculated operation ratio on the display device; and

a display step of displaying the calculated power generation end efficiency and the calculated efficiency of the component in a superimposed manner on the display device.

13. The control method according to claim 12, further comprising:

a reception step of receiving a selection of a period,

wherein in the display step, the operation ratio in the selected period is displayed on the display device.

14. A computer-readable storage medium stores computer program causing a computer to execute:

an acquisition step of acquiring process data of a plant;

a calculation step of calculating an operation ratio related to operation of the plant as an index related to the operation of the plant, a power generation end efficiency that is an efficiency of the entire plant, and an efficiency of a component included in the plant based on the acquired process data;

a display step of displaying the calculated operation ratio on a display device; and

a display step of displaying the calculated power generation end efficiency and the calculated efficiency of the component in a superimposed manner on the display device.