

Claims

- [Claim 1] A system comprising:
a planning section that generates a production plan for controlling a production site during a target interval, using a planning model that has been updated to a newest state;
a base planning section that generates a base plan to serve as a base of the production plan, using an unupdated planning model; and
a tracking section that tracks improvement in the production plan caused by the update of the planning model, based on the production plan and the base plan.
- [Claim 2] The system according to Claim 1, wherein
the planning section and the base planning section respectively generate the production plan and the base plan by each inputting the same information to the respective planning models.
- [Claim 3] The system according to Claim 2, wherein
the base planning section inputs, to the unupdated planning model, information that is the same as information input to the planning model by the planning section for generating the production plan for the target interval.
- [Claim 4] The system according to any one of Claims 1 to 3, wherein
the tracking section tracks the improvement in the production plan caused by the update of the planning model, based on a difference between the production plan and the base plan.
- [Claim 5] The system according to any one of Claims 1 to 4, wherein
the tracking section tracks profit in the production plan.
- [Claim 6] The system according to any one of Claims 1 to 5, further comprising:
an updating section that updates the planning model.
- [Claim 7] The system according to Claim 6, further comprising:
a simulating section that simulates operation of at least a portion of the production site, based on a simulation model of the at least a portion of the production site; and
a calibrating section that calibrates the simulation model, based on a difference between the simulated operation and actual operation, wherein
the updating section updates the planning model according to the calibration of the simulation model.

- [Claim 8] The system according to any one of Claims 1 to 7, wherein the planning model is a linear programming model.
- [Claim 9] The system according to any one of Claims 1 to 8, further comprising:
a control section that controls the production site, based on the production plan.
- [Claim 10] The system according to any one of Claims 1 to 9, wherein the production site includes a refinery that produces a plurality of petroleum products by refining crude oil.
- [Claim 11] A method comprising:
generating a production plan for controlling a production site during a target interval, using a planning model that has been updated to a newest state;
generating a base plan to serve as a base of the production plan, using an unupdated planning model; and
tracking improvement in the production plan caused by the update of the planning model, based on the production plan and the base plan.
- [Claim 12] A program that, when executed by a computer, causes the computer to function as:
a planning section that generates a production plan for controlling a production site during a target interval, using a planning model that has been updated to a newest state;
a base planning section that generates a base plan to serve as a base of the production plan, using an unupdated planning model; and
a tracking section that tracks improvement in the production plan caused by the update of the planning model, based on the production plan and the base plan.