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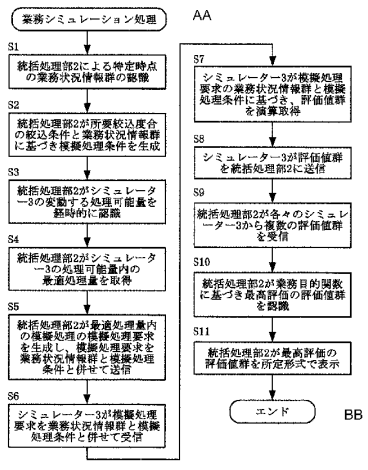
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(54) **Title:** OPERATIONAL PLAN OPTIMIZATION DEVICE AND OPERATIONAL PLAN OPTIMIZATION METHOD

(54) 発明の名称： 業務計画最適化装置及び業務計画最適化方法



S1 Recognition of operational condition information groups at specific time point by overall control processing unit 2
S2 Overall control processing unit 2 generates simulation process condition on basis of refinement condition of required refinement degree and operational condition information group
S3 Overall control processing unit 2 recognizes varying processable amounts of simulators 3 over time
S4 Overall control processing unit 2 acquires optimal processing amount within processable amounts of simulators 3
S5 Overall control processing unit 2 generates simulation process request for simulation process within optimal processing amount, and transmits the simulation process request with operational situation information group and simulation process condition
S6 Simulators 3 receive simulation process request with operational condition information group and simulation process condition
S7 Simulators 3 acquire, by computation, evaluation value group on basis of operational condition information group and simulation process condition of simulation process request
S8 Simulators 3 transmit evaluation value group to overall control processing unit 2
S9 Overall control processing unit 2 receives plurality of evaluation value groups from simulators 3
S10 Overall control processing unit 2 recognizes evaluation value group with highest evaluation on basis of operational objective function
S11 Overall control processing unit 2 displays evaluation value group with highest evaluation with predetermined format
AA Operational simulation process
BB End

(57) **Abstract:** An operational plan optimization device 1 is provided with an overall control processing unit 2 and a plurality of simulators 3 which are communicably connected to and controlled overall by the overall control processing unit 2. The overall control processing unit 2: recognizes varying processable amounts of the simulators 3 over time; transmits to the respective simulators 3 a simulation process request for a simulation process within an optimal processing amount among the recognized processable amounts of the simulators 3, with an operational condition information group and a simulation process condition; receives from the respective simulators 3 a plurality of evaluation value groups as simulation process results based on the operational condition information group and the simulation process condition; and

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recognizes an evaluation value group with the highest evaluation based on an operational objective function out of the plurality of received evaluation value groups. The operational plan optimization device 1 makes it possible to recognize an optimal operation by efficiently using a hardware resource and performing various simulation computations at high speed at lower cost during an operational simulation.

(57) 要約:統括処理部２と、統括処理部２に通信接続されて統括される複数のシミュレーター３を備え、統括処理部２が、シミュレーター３のそれぞれの変動する処理可能量を経時的に認識し、それぞれのシミュレーター３の認識した処理可能量内の最適処理量内の模擬処理の模擬処理要求を業務状況情報群と模擬処理条件と併せてそれぞれのシミュレーター３に送信し、それぞれのシミュレーター３から業務状況情報群と模擬処理条件に基づく模擬処理結果として複数の評価値群を受信し、受信した複数の評価値群のうち業務目的関数に基づく最高評価の評価値群を認識する業務計画最適化装置１。業務シミュレーションを行う際に、ハードウェア資源を効率的に使用し、より低コストで、多様なシミュレーション演算を高速で行い、最適な業務を認識することができる。