Fig. 1

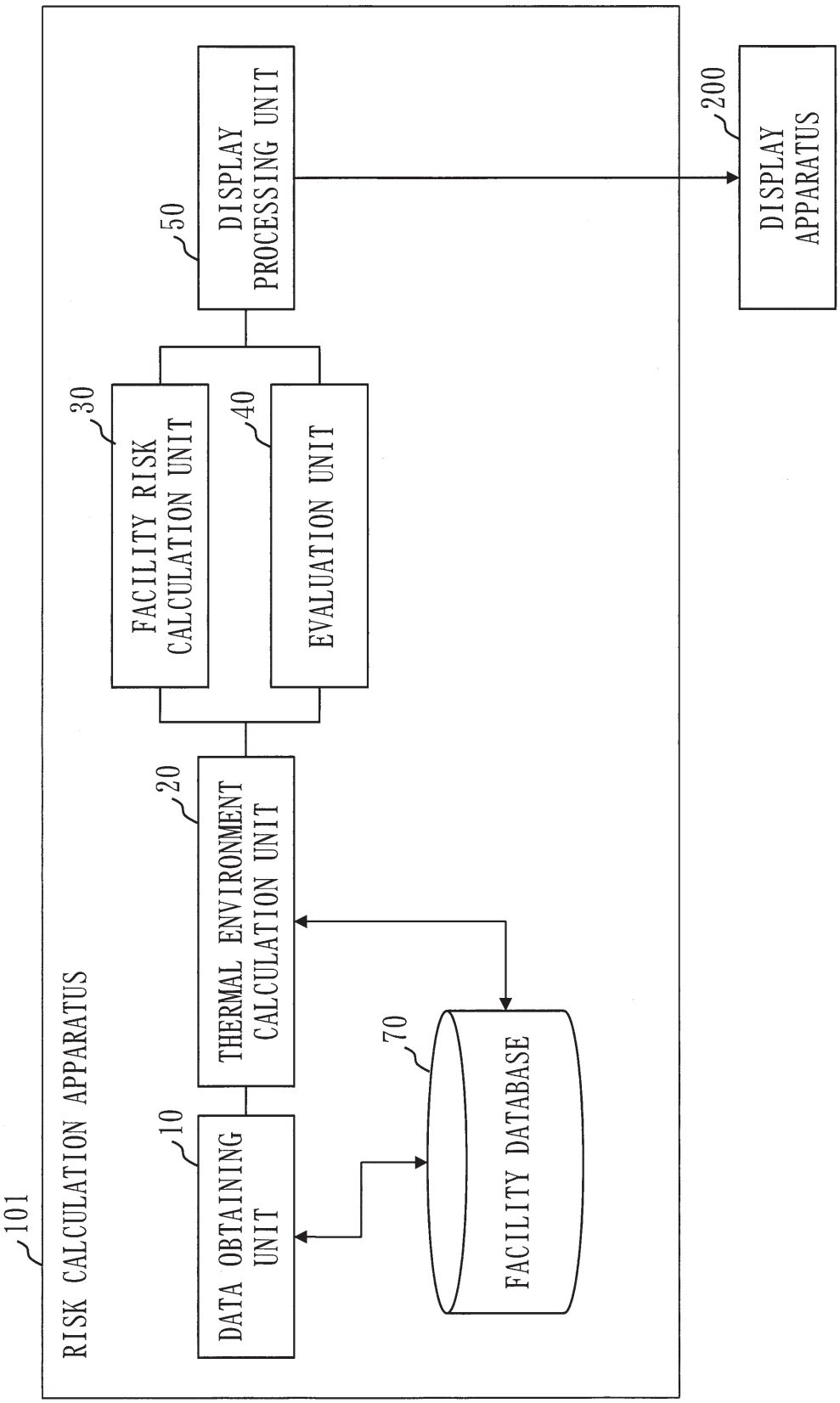

101
RISK CALCULATION APPARATUS
10
DATA OBTAINING UNIT
20
THERMAL ENVIRONMENT CALCULATION UNIT
30
FACILITY RISK CALCULATION UNIT
40
EVALUATION UNIT
50
DISPLAY PROCESSING UNIT
70
FACILITY DATABASE
200
DISPLAY APPARATUS

Fig. 3

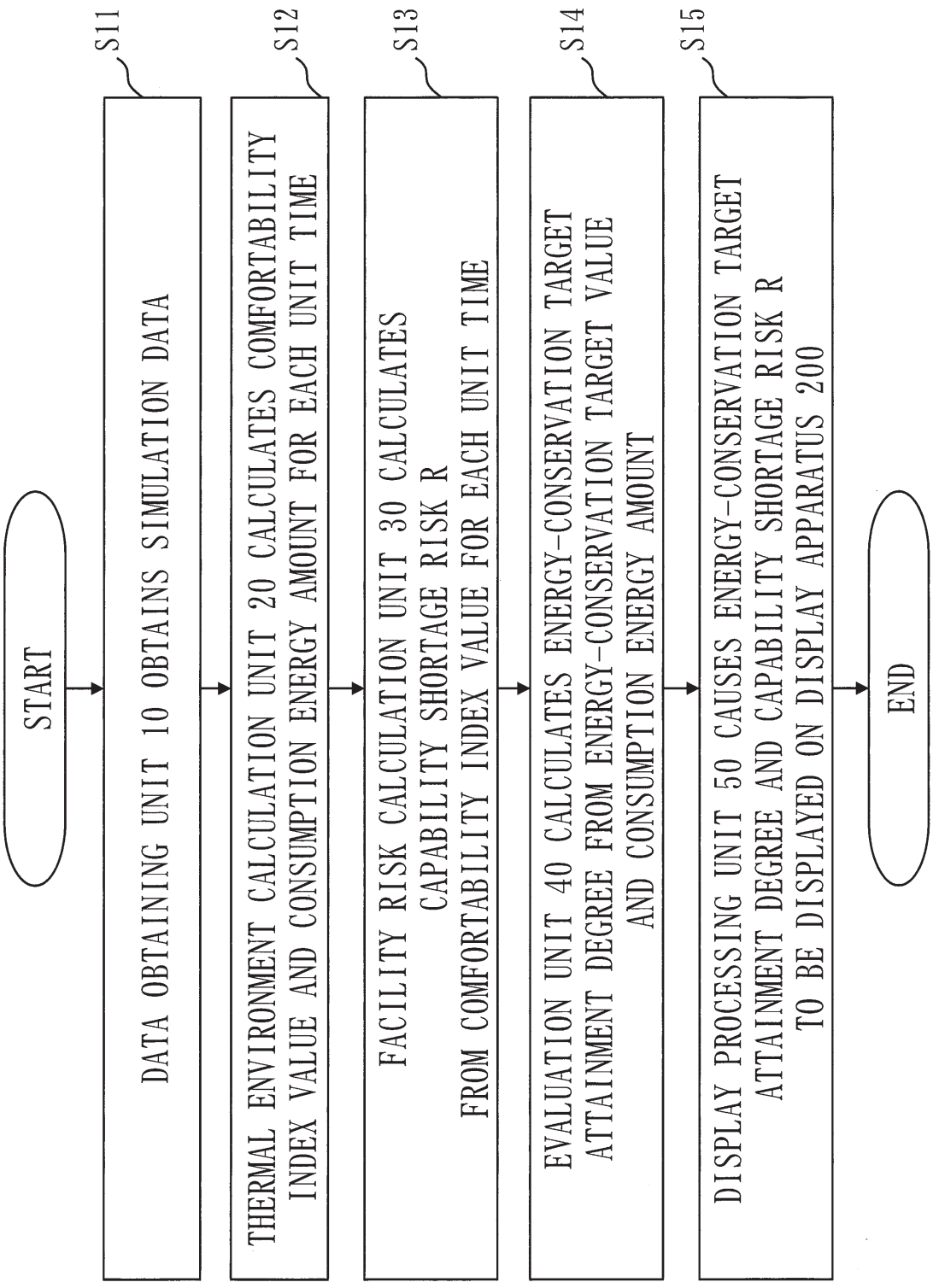

START
S11
DATA OBTAINING UNIT 10 OBTAINS SIMULATION DATA
S12
THERMAL ENVIRONMENT CALCULATION UNIT 20 CALCULATES COMFORTABILITY INDEX VALUE AND CONSUMPTION ENERGY AMOUNT FOR EACH UNIT TIME
S13
FACILITY RISK CALCULATION UNIT 30 CALCULATES CAPABILITY SHORTAGE RISK R FROM COMFORTABILITY INDEX VALUE FOR EACH UNIT TIME
S14
EVALUATION UNIT 40 CALCULATES ENERGY-CONSERVATION TARGET ATTAINMENT DEGREE FROM ENERGY-CONSERVATION TARGET VALUE AND CONSUMPTION ENERGY AMOUNT
S15
DISPLAY PROCESSING UNIT 50 CAUSES ENERGY-CONSERVATION TARGET ATTAINMENT DEGREE AND CAPABILITY SHORTAGE RISK R TO BE DISPLAYED ON DISPLAY APPARATUS 200
END

Fig. 6

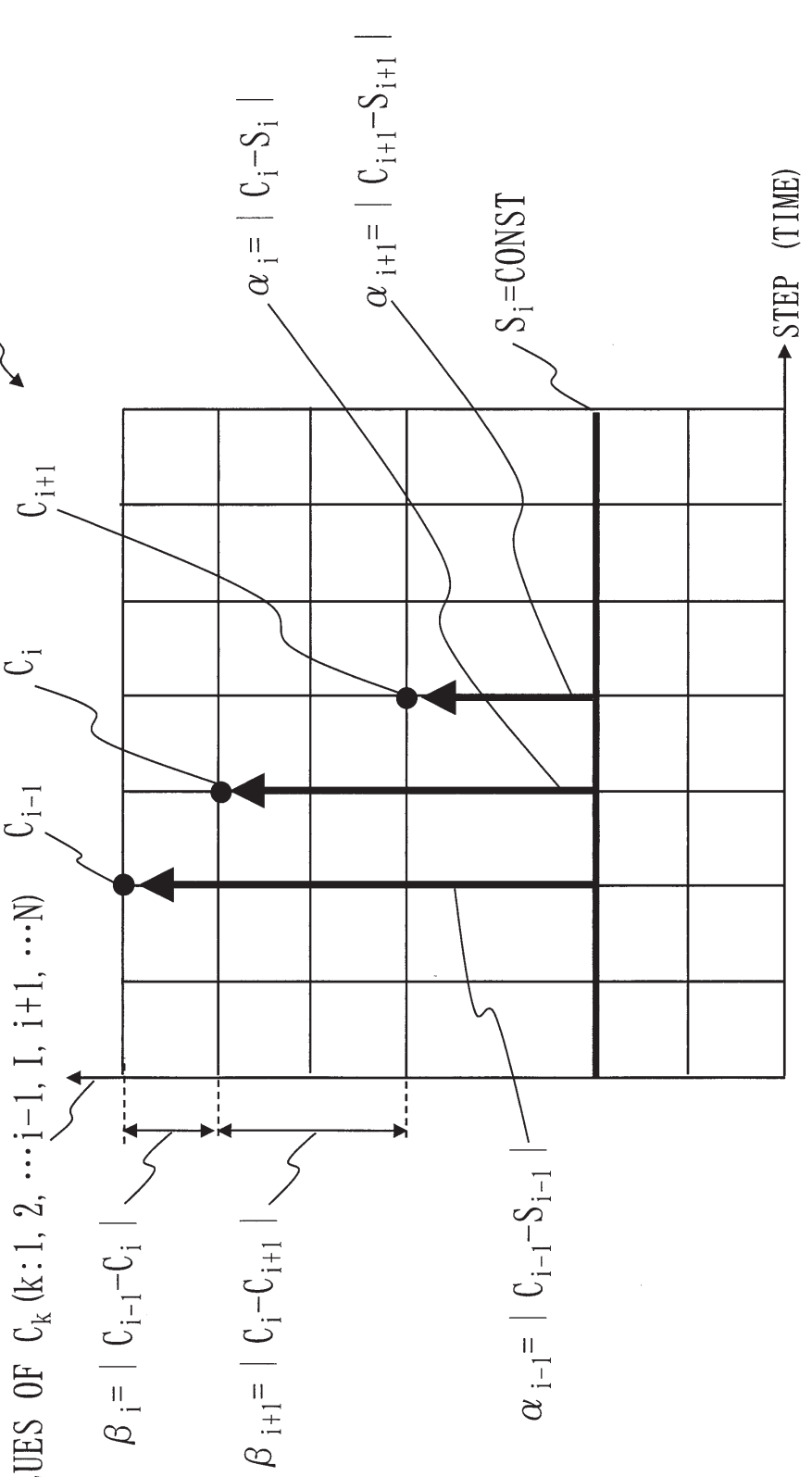
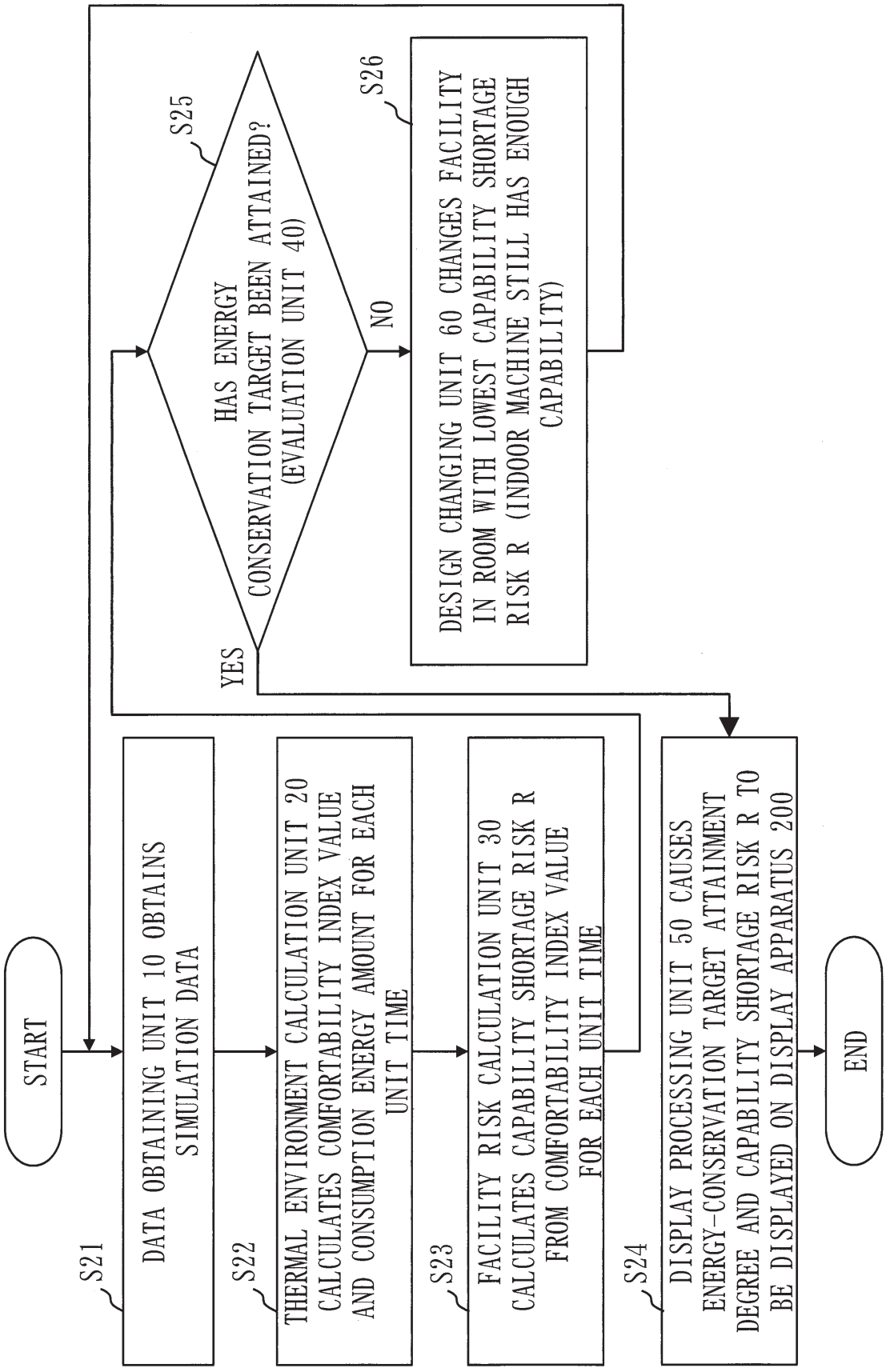

IN CASE OF COOLING
VALUES OF C_k (k: 1, 2, ···i−1, I, i+1, ···N)
C_{i-1}
C_i
C_{i+1}
$\beta_i = |C_{i-1} - C_i|$
$\beta_{i+1} = |C_i - C_{i+1}|$
$\alpha_{i-1} = |C_{i-1} - S_{i-1}|$
$\alpha_i = |C_i - S_i|$
$\alpha_{i+1} = |C_{i+1} - S_{i+1}|$
S_i=CONST
STEP (TIME)

Fig. 11


START
S21
DATA OBTAINING UNIT 10 OBTAINS SIMULATION DATA
S22
THERMAL ENVIRONMENT CALCULATION UNIT 20 CALCULATES COMFORTABILITY INDEX VALUE AND CONSUMPTION ENERGY AMOUNT FOR EACH UNIT TIME
S23
FACILITY RISK CALCULATION UNIT 30 CALCULATES CAPABILITY SHORTAGE RISK R FROM COMFORTABILITY INDEX VALUE FOR EACH UNIT TIME
S24
DISPLAY PROCESSING UNIT 50 CAUSES ENERGY-CONSERVATION TARGET ATTAINMENT DEGREE AND CAPABILITY SHORTAGE RISK R TO BE DISPLAYED ON DISPLAY APPARATUS 200
END
S25
HAS ENERGY CONSERVATION TARGET BEEN ATTAINED? (EVALUATION UNIT 40)
YES
NO
S26
DESIGN CHANGING UNIT 60 CHANGES FACILITY IN ROOM WITH LOWEST CAPABILITY SHORTAGE RISK R (INDOOR MACHINE STILL HAS ENOUGH CAPABILITY)