

Claims

1. A method of programming and operating a facility, comprising:
 - (a) using a computer system that stores an operational programming application, wherein the operational programming application comprises an operational program for determining the operation of at least one facility;
 - (b) acquiring data from operational events of the at least one facility and entering the data into the operational program, wherein feasibility of the operational program is maintained, wherein the operational events of the at least one facility entered into the operational program are one of two types of events: defined operational events and undefined operational events, wherein a ratio of a number of the defined operational events to a number of the undefined operational events entered into the operational program changes with passage of time, wherein a ratio of a number of the defined operational events to a number of the undefined operational events entered into the operational program increases with passage of time;
 - (c) setting a scope of the data to be analyzed, wherein the scope of the analysis is defined based on at least one operational event of interest;
 - (d) assembling the data within the scope of the analysis in a structured and automated manner;
 - (e) processing the assembled data using at least one of a mathematical model defined from the assembled data and a strategy-based procedure and obtaining results for the defined scope of the analysis;
 - (f) disassembling the obtained results in a structured and automated manner according to the obtained results;
 - (g) adjusting the operational program by incorporating the obtained result into the program; and
 - (h) programming and operating the at least one facility according to the adjusted operational program.
2. The method of claim 1, wherein the scope of the analysis is set based on the at least one operational event that affects at least a portion of a facility, a single facility, multiple facilities or one or more portions of multiple facilities.

3. The method of claim 2, wherein the scope of the analysis is set according to a duration of an effect that the at least one operational event has on the at least one facility.
4. The method of claim 1, wherein the scope of the analysis is set according to a duration of the at least one operational event of interest.
5. The method of claim 1, wherein processing the assembled data comprising using a mathematical model defined from the assembled data.
6. The method of claim 1, wherein processing the assembled data comprising using a strategy-based procedure.
7. The method of claim 1, wherein processing the assembly data comprising using both a mathematical model defined from the assembled data and a strategy-based procedure.
8. A computer system for determining the operation of a facility, the computer system having executable instructions stored in a memory and being programmed to perform steps that comprise:
 - (a) storing an operational programming application, wherein the operational programming application comprises an operational program for determining the operation of at least one facility;
 - (b) acquiring data from operational events of the at least one facility and entering the data into the operational program, wherein feasibility of the operational program is maintained, wherein the operational events of the at least one facility entered into the operational program are one of two types of events: defined operational events and undefined operational events, wherein a ratio of a number of the defined operational events to a number of the undefined operational events entered into the operational program changes with passage of time, wherein a ratio of a number of the defined operational events to a number of the undefined operational events entered into the operational program increases with passage of time;

(c) setting a scope of the data to be analyzed, wherein the scope of the analysis is defined based on at least one operational event of interest;

(d) assembling the data within the scope of the analysis in a structured and automated manner;

(e) processing the assembled data using at least one of a mathematical model defined from the assembled data and a strategy-based procedure and obtaining results for the defined scope of the analysis;

(f) disassembling the obtained results in a structured and automated manner according to the obtained results; and

(g) adjusting the operational program by incorporating the obtained result into the program.

9. The computer system of claim 8, wherein the scope of the analysis is set based on the at least one operational event that affects at least a portion of a facility, a single facility, multiple facilities or one or more portions of multiple facilities.

10. The computer system of claim 8, wherein the scope of the analysis is set according to a duration of the at least one operational event of interest.

11. The computer system of claim 10, wherein the scope of the analysis is set according to a duration of an effect that the at least one operational event has on the at least one facility.

12. The computer system of claim 8, wherein processing the assembled data comprising using a mathematical model defined from the assembled data.

13. The computer system of claim 8, wherein processing the assembled data comprising using a strategy-based procedure.

14. The computer system of claim 8, wherein processing the assembly data comprising using both a mathematical model defined from the assembled data and a strategy-based procedure.

15. A non-transitory machine-readable storage medium comprising instructions which, when executed by a processor, cause the processor to:

(a) store an operational programming application, wherein the operational programming application comprises an operational program for determining the operation of at least one facility;

(b) acquire data from operational events of the at least one facility and entering the data into the operational program, wherein feasibility of the operational program is maintained, wherein the operational events of the at least one facility entered into the operational program are one of two types of events: defined operational events and undefined operational events, wherein a ratio of a number of the defined operational events to a number of the undefined operational events entered into the operational program changes with passage of time, wherein a ratio of a number of the defined operational events to a number of the undefined operational events entered into the operational program increases with passage of time;

(c) set scope of the data to be analyzed, wherein the scope of the analysis is defined based on at least one operational event of interest;

(d) assemble the data within the scope of the analysis in a structured and automated manner;

(e) process the assembled data using at least one of a mathematical model defined from the assembled data and a strategy-based procedure and obtain results for the defined scope of the analysis;

(f) disassemble the obtained results in a structured and automated manner according to the obtained results; and

(g) adjust the operational program by incorporating the obtained result into the program.

16. The non-transitory machine-readable storage medium of claim 15, wherein the scope of the analysis is set based on the at least one operational event that affects at least a portion of a facility, a single facility, multiple facilities or one or more portions of multiple facilities.

17. The non-transitory machine-readable storage medium of claim 15, wherein the scope of the analysis is set according to a duration of the at least one operational event of interest.
18. The non-transitory machine-readable storage medium of claim 17, wherein the scope of the analysis is set according to a duration of an effect that the at least one operational event has on the at least one facility.
19. The non-transitory machine-readable storage medium of claim 15, wherein processing the assembled data comprising using a mathematical model defined from the assembled data.
20. The non-transitory machine-readable storage medium of claim 15, wherein processing the assembled data comprising using a strategy-based procedure.
21. The non-transitory machine-readable storage medium of claim 15, wherein processing the assembly data comprising using both a mathematical model defined from the assembled data and a strategy-based procedure.