

We Claim:

1. A non-transitory computer-readable storage medium comprising a set of instructions for creating a subsystem process independent from a main system process for data computation, the set of instructions to direct at least one processor to perform acts of:

5 in ~~a~~the main system process, receiving a user input;

in the main system process, sending the user input to ~~a~~the subsystem process without analyzing content of the user input, the subsystem process is independent from and in parallel with the main system process;

10 in the main system process, generating a first computation result according to the user input;

in the subsystem process, generating a second computation result in parallel with the main system process according to the user input;

in the main system process, receiving the second computation result from the subsystem process; and

15 in the main system process, combining the first computation result and the second computation result.

2. The non-transitory computer-readable storage medium according to claim 1, wherein the set of instructions direct the at least one processor to perform acts of:

20 in the main system process, receiving an instruction for loading a subsystem; and

in the main system process, creating the subsystem process in accordance with the instruction for loading the subsystem.

3. The non-transitory computer-readable storage medium according to claim 1, wherein
25 the set of instructions direct the at least one processor to generate the first computation result by:

in the main system process, processing the user input and a first service logic according to the user input; and

in the main system process, generating the first computation result upon completion of the first service logic processing.

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4. The non-transitory computer-readable storage medium according to claim 1, wherein the set of instructions direct the at least one processor to generate the second computation result by:

in the subsystem process, processing the user input and a second service logic according to the user input; and

in the subsystem process, generating the second computation result upon completion of the second service logic processing.

5. The non-transitory computer-readable storage medium according to claim 1, wherein the data computation generates a user interface associated with the main system process;

the first computation result is a first pixel graph of a first portion of the user interface; and

the second computation result is a second pixel graph of a second portion of the user interface.

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6. The non-transitory computer-readable storage medium according to claim 5, wherein the second pixel graph is an updated portion of a computation result of the subsystem process at a current time in comparison with a reference computation result of the subsystem process at a previous time.

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7. The non-transitory computer-readable storage medium according to claim 5, wherein

combining the first computation result with the second computation result comprises combining the first pixel graph with the second pixel graph, forming the user interface.

8. The non-transitory computer-readable storage medium according to claim 1, wherein
5 the set of instructions direct the at least one processor to perform acts of:

in the main system process, detecting, by the processor, an abnormal state of the subsystem process; and

restarting, by the processor, the subsystem process when the abnormal state of the subsystem process is detected.

10 9. A computer-implemented method, comprising:

in a main system process, receiving, by a processor, a user input;

in the main system process, sending, by a processor, the user input to a subsystem
process without analyzing content of the user input, the subsystem process is independent
from and in parallel with the main system process;

15 in the main system process, generating, by a processor, a first computation result according to the user input;

in the subsystem process, generating, by a processor, a second computation result in parallel with the main system process according to the user input;

in the main system process, receiving, by a processor, the second computation result
20 from the subsystem process; and

in the main system process, combining, by a processor, the first computation result and the second computation result.

10. The computer-implemented method according to claim 9, further comprising:

25 in the main system process, receiving, by a processor, an instruction for loading a

subsystem; and

in the main system process, creating, by a processor, the subsystem process in accordance with the instruction for loading the subsystem.

5 11. The computer-implemented method according to claim 9, wherein generating the first computation result comprises:

in the main system process, processing, by a processor, the user input and a first service logic according to the user input; and

10 in the main system process, generating, by a processor, the first computation result upon completion of the first service logic processing.

12. The computer-implemented method according to claim 9, wherein generating the second computation result comprises:

15 in the subsystem process, processing, by a processor, the user input and a second service logic according to the user input; and

in the subsystem process, generating, by a processor, the second computation result upon completion of the second service logic processing.

20 13. The computer-implemented method according to claim 9, wherein the first computation result is a first pixel graph of a first portion of a user interface associated with the main system process; and

the second computation result is a second pixel graph of a second portion of the user interface associated with the main system process.

25 14. The computer-implemented method according to claim 13, wherein the second pixel graph is an updated portion of a computation result of the subsystem process at a current time

in comparison with a reference computation result of the subsystem process at a previous time.

15. The computer-implemented method according to claim 13, wherein combining the first computation result with the second computation result comprises combining the first pixel graph with the second pixel graph, forming the user interface.

16. The computer-implemented method according to claim 9, comprising:
in the main system process, detecting, by the processor, an abnormal state of the subsystem process; and
restarting, by the processor, the subsystem process when the abnormal state of the subsystem process is detected.

17. A computer device, comprising:
a subsystem module device having a subsystem process and configured to conduct data computation;
a main system module device having a main system process and configured to:
execute the main system process,
receive a user input,
create the subsystem process independent from and executed in parallel with the main system process, and
send the user input to the subsystem module device without analyzing content of the user input;

wherein:

the main system module device is configured to generate a first computation result according to the user input;

the subsystem module device is configured to generate a second computation result in parallel with the main system process according to the user input;

the main system module device is configured to receive the second computation result from the subsystem process; and

5 the main system module device is configured to combine the first computation result and the second computation result.

18. The computer device according to claim 17, wherein the main system module device is configured to:

10 receive an instruction for loading a subsystem, and
create the subsystem process in accordance with the instruction for loading the subsystem.

19. The computer device according to claim 17, wherein the main system process is
15 configured to:

process the user input and a first service logic according to the user input;
generate the first computation result upon completion of a first service logic;

the subsystem module device is configured to:

process the user input and a second service logic according to the user input;
20 and
generate the second computation result upon completion of the second service logic processing.

20. The computer device according to claim 17, wherein the data computation generates
25 a user interface associated with the main system process;

wherein the first computation result is a first pixel graph of a first portion of the user

interface;

wherein the second computation result is a second pixel graph of a second portion of the user interface; and

5 wherein the main system module device is configured to combine the first pixel graph with the second pixel graph, forming the user interface.