

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 the main system process, receiving a user input;

in the main system process, sending the user input to 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 pixel graph of a first portion of a user interface ~~a first computation result~~ according to the user input;

in the subsystem process, generating a second pixel graph of a second portion of the user interface ~~a second computation result~~ in parallel with the main system process according to the user input;

15 in the main system process, receiving the second pixel graph ~~second computation result~~ from the subsystem process; and

in the main system process, combining the first pixel graph ~~first computation result~~ and the second pixel graph into a pixel graph of the user interface ~~second computation result~~.

20 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:

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.

25 3. 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 first computation

resultpixel graph 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 pixel graph~~first computation result~~ upon completion of the first service logic processing.

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~~second pixel graph 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 pixel graph~~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.~~

56. The non-transitory computer-readable storage medium according to claim 15, 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.

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.~~

5 68. 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:

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
10 subsystem process is detected.

79. 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
15 from and in parallel with the main system process;

in the main system process, generating, by a processor, a first pixel graph of a first portion of a user interface~~first computation result~~ according to the user input;

in the subsystem process, generating, by a processor, a second pixel graph of a second portion of the user interface~~second computation result~~ in parallel with the main system
20 process according to the user input;

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

in the main system process, combining, by a processor, the first pixel graph~~first computation result~~ and the second pixel graph into a pixel graph of the user interface~~second computation result~~.
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810. The computer-implemented method according to claim 79, further comprising:

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.

911. The computer-implemented method according to claim 79, wherein generating the first pixel graph~~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

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

1012. The computer-implemented method according to claim 79, wherein generating the second pixel graph~~second computation result~~ comprises:

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 pixel graph~~second computation result~~ upon completion of the second service logic processing.

~~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.~~

11.14. The computer-implemented method according to claim ~~71~~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.~~

~~12~~¹⁶. The computer-implemented method according to claim ~~7~~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.

~~13~~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 pixel graph of a first portion of a user interface~~a first computation result~~ according to the user input;

the subsystem module device is configured to generate a second pixel graph of a second portion of the user interface~~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 pixel graph~~second computation result~~ from the subsystem process; and

the main system module device is configured to combine the first pixel graph~~first computation result~~ and the second pixel graph into a pixel graph of the user interface~~second computation result~~.

1418. The computer device according to claim 1317, wherein the main system module device is configured to:

receive an instruction for loading a subsystem, and

create the subsystem process in accordance with the instruction for loading the subsystem.

1519. The computer device according to claim 1317, wherein the main system process is configured to:

process the user input and a first service logic according to the user input;

generate the first pixel graph~~first computation result~~ upon completion of first service logic;

the subsystem module device is configured to:

process the user input and a second service logic according to the user input;

and

generate the second pixel graph~~second computation result~~ upon completion of the second service logic.

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

5 ~~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~~

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