

distinguished. However, as technologies develop, the current improvement for many method procedures can be considered as a direct improvement of a hardware circuit structure. A designer usually programs an improved method procedure to a hardware circuit, so as to obtain a corresponding hardware circuit structure. Therefore, a method procedure can be improved by using a hardware entity module. For example, a programmable logic device (PLD) (for example, a field programmable gate array (FPGA)) is such an integrated circuit, and a logical function of the programmable logic device is determined by a user through device programming. The designer performs programming to "integrate" a digital system to a PLD without requesting a chip manufacturer to design and produce an application-specific integrated circuit chip. In addition, at present, instead of manually manufacturing an integrated chip, this type of programming is mostly implemented by using "logic compiler" software. The programming is similar to a software compiler used to develop and write a program. Original code needs to be written in a particular programming language for compilation. The language is referred to as a hardware description language (HDL). There are many HDLs, such as the Advanced Boolean Expression Language (ABEL), the Altera Hardware Description Language (AHDL), Confluence, the Cornell University Programming Language (CUPL), HDCal, the Java Hardware Description Language (JHDL), Lava, Lola, MyHDL, PALASM, and the Ruby Hardware Description Language (RHDL). The very-high-speed integrated circuit hardware description language (VHDL) and Verilog are most commonly used. A person skilled in the art should also understand that a hardware circuit that implements a logical method procedure can be readily obtained once the method procedure is logically programmed by using the several described hardware description languages and is programmed into an integrated circuit.

[0059] A controller can be implemented by using any appropriate method. For example, the controller can be a microprocessor or a processor, or a computer-readable medium that stores computer readable program code (such as software or firmware) that can be executed by the microprocessor or the processor, a logic gate, a switch, an application-specific integrated circuit (ASIC), a programmable logic controller, or a built-in microprocessor. Examples of the controller include but are not limited to the following microprocessors: ARC 625D, Atmel AT91SAM, Microchip PIC18F26K20, and [Silicon Labs](#) C8051F320. The memory controller can also be implemented as a part of the control logic of the memory. A person skilled in

CLAIMS

~~WHAT IS CLAIMED IS:~~

1. A computer-implemented method for data processing ~~method~~, comprising:
- 5 ~~obtaining an original event attribute;~~
 ~~filling data based on a predetermined~~ obtaining, from a first service system and
 by a second service system, original event attributes of an event, wherein the first
 service system provides attribute data in a first format and wherein the second service
 system provides attribute data in a second format;
- 10 obtaining support data from a support service system that provides attribute data
 in a support data format;
 performing, by the second service system, data filling to the original event
 attributes to obtain the attribute data in the second format based on the support data
 and a pre-configured event correlation configuration ~~to obtain corresponding attribute~~
15 ~~data, wherein the predetermined event correlation configuration that~~ comprises an
 attribute configuration; and
 ~~performing data conversion based on the original event attribute and the attribute~~
 ~~data to obtain an event~~ providing, by the second service system, the attribute.
2. The method according to claim 1, further comprising: obtaining a
- 20 ~~predetermined event correlation configuration after an original event attribute is~~
 ~~obtained, and~~
 a method of obtaining the predetermined event correlation configuration
 specifically comprises:
- 25 ~~obtaining, according to a predetermined attribute configuration mapping~~
 ~~relationship, a configuration of at least one of the predetermined event correlations~~
 ~~configuration mapped from the at least one attribute based on at least one of the~~
 ~~original event attributes; or~~
 ~~obtaining, according to the configuration attribute mapping relationship, a~~
 ~~specified the event correlation configuration based on the original event attribute.~~

- ~~3.~~The method according to claim 1, wherein the event correlation configuration further comprises a predetermined attribute configuration; and the attribute data further comprises a predetermined attribute; and
filling data based on a predetermined event correlation configuration to obtain
5 corresponding attribute data specifically comprises:
filling data based on the predetermined attribute configuration and the original event attribute, and performing conversion to obtain a predetermined attribute.
- ~~4.~~The method according to claim 3, wherein the event correlation configuration further comprises a correlation data configuration; and in the second format to a third
10 service system that provides attribute data further comprises correlation data; and
filling data based on a predetermined event correlation configuration to obtain
corresponding attribute data specifically comprises:
filling data based on a predetermined correlation data configuration, third
format for the original event attribute, and the predetermined attribute to obtain
15 required correlation data, third service system
- ~~5.~~The method according to claim 4, wherein performing data conversion based on the original event attribute and the attribute data to obtain an event attribute specifically comprises:
arranging the obtained original event attribute and the correlation data to obtain
20 to be converted data; and
converting the to be converted data based on a specified conversion mode to obtain an event attribute.
- ~~6.~~The method according to claim 3, wherein converting the to be converted data based on a specified conversion mode to obtain an event attribute specifically
25 comprises:
obtaining a corresponding configuration script based on the predetermined attribute configuration; and
converting the to be converted data by using the configuration script, so as to obtain an event attribute.
- ~~7.~~A data processing apparatus, comprising:
30 an acquisition module, configured to obtain an original event attribute;
a filling module, configured to fill data based on a predetermined event correlation configuration to obtain corresponding attribute data, wherein the

~~predetermined event correlation configuration comprises an attribute configuration;
and~~

~~a conversion module, configured to perform data conversion based on the
original event ~~attribute~~attributes and the attribute data in the second format to obtain
5 ~~an updated~~ event ~~attribute~~attributes, wherein the third format is different from the
second format.~~

~~8~~

2. The ~~apparatus~~computer-implemented method according to claim 7, wherein
the acquisition module is 1, comprising:

10 before performing data filling, obtaining the ~~pre~~-configured ~~to: obtain, according~~
~~to event correlation configuration based on at least one of a predetermined pre-~~
~~configured~~ attribute configuration mapping relationship, ~~a configuration of at least~~
~~one of the predetermined event correlations configuration mapped from the at least~~
~~one attribute based on at least one of~~ or at least one of the original event attributes; ~~or,~~
15 ~~obtain, according to the configuration attribute mapping relationship, a specified~~
~~the event correlation configuration based on the original event attribute.~~

~~9.~~

3. The ~~apparatus~~computer-implemented method according to claim 7, wherein
the ~~pre-configured~~ event correlation configuration further comprises a predetermined
20 attribute configuration; and the attribute data further comprises a predetermined
attribute; ~~and.~~

4. The computer-implemented method according to claim 3, comprising:
performing the data filling module further comprises a conversion unit, wherein
25 ~~the conversion unit is configured to fill data~~ based on the predetermined attribute
configuration to obtain the predetermined attribute.

5. The computer-implemented method according to claim 3, wherein the attribute
data further comprises correlation data obtained by performing the data filling based
30 on the pre-configured event correlation configuration.

6. ~~and~~The computer-implemented method according to claim 5, wherein
performing data conversion to obtain the updated event attributes comprises:

arranging the original event ~~attribute~~, attributes and the correlation data to obtain arranged data; and

converting the arranged data based on a conversion mode to obtain the updated event attributes.

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7. The computer-implemented method according to claim 6, wherein converting the arranged data based on the conversion mode to obtain the updated event attributes comprises:

obtaining a configuration script based on the predetermined attribute configuration; and

converting the arranged data based on the configuration script to obtain the updated event attributes.

8. A non-transitory, computer-readable medium storing one or more instructions executable by a computer system to perform operations comprising:

obtaining, from a first service system and by a second service system, original event attributes of an event, wherein the first service system provides attribute data in a first format and wherein the second service system provides attribute data in a second format;

obtaining support data from a support service system that provides attribute data in a support data format;

performing, by the second service system, data filling to the original event attributes to obtain the attribute data in the second format based on the support data and a pre-configured event correlation configuration that comprises an attribute configuration; and

providing, by the second service system, the attribute data in the second format to a third service system that provides attribute data in a third format for the third service system to perform data conversion based on the original event attributes and the attribute data in the second format to obtain updated event attributes, wherein the third format is different from the second format.

9. ~~conversion~~ The non-transitory, computer-readable medium according to claim 8, the operations comprising:

before performing data filling, obtaining the pre-configured event correlation configuration based on at least one of a ~~predetermined~~pre-configured attribute-configuration mapping relationship or at least one of the original event attributes.

5 10. The ~~apparatus~~non-transitory, computer-readable medium according to claim 98, wherein the pre-configured event correlation configuration further comprises a ~~correlation data~~predetermined attribute configuration; and the attribute data further comprises ~~correlation data; and~~

~~the filling module further comprises an acquisition unit, wherein~~
10 ~~the acquisition unit is configured to fill data based on a~~ a predetermined correlation data configuration, ~~the original event attribute, and the predetermined attribute to obtain required correlation data,attribute.~~

~~11. wherein the correlation data is obtained locally, from a storage system, or~~
15 ~~from a third party system.~~

~~11.~~ The ~~apparatus~~non-transitory, computer-readable medium according to claim 10, the operations comprising:

performing the data filling based on the predetermined attribute configuration to obtain the predetermined attribute.

20
12. The non-transitory, computer-readable medium according to claim 10,
wherein the pre-configured event correlation configuration further comprises a
correlation data configuration, and the attribute data further comprises correlation data
obtained by performing the data filling based on the pre-configured event correlation
25 configuration.

13. The non-transitory, computer-readable medium according to claim 12,
wherein ~~the performing data conversion module is configured to arrange~~obtain the ~~obtained~~updated event attributes comprises:

30 arranging the original event ~~attribute and the correlation data to obtain to be~~
~~converted data;attributes~~ and the correlation data to obtain arranged data; and
convert~~converting~~ the ~~to-be-converted~~arranged data based on a ~~specified~~
conversion mode to obtain ~~an~~the updated event ~~attribute~~attributes.

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14. The ~~apparatus~~non-transitory, computer-readable medium according to claim 913, wherein converting the arranged data based on the conversion module is configured mode to: obtain the updated event attributes comprises:

5 obtaining a~~corresponding~~ configuration script based on the predetermined attribute configuration; and ~~perform~~

converting the arranged data ~~conversion based on the to-be-converted data by using the configuration script, so as to obtain an~~the updated event attribute~~attributes~~.

10 15. A computer-implemented system~~13. An electronic device~~, comprising:

~~at least one processor, or more computers;~~ and

~~a one or more computer memory communicatively connected to the at least one processor, wherein~~

~~the memory stores devices interoperably coupled with the one or more computers and having tangible, non-transitory, machine-readable media storing one or more instructions that can be, when executed by the at least one processor, and the instructions are executed by the at least one processor to enable the at least one processor to or more computers, perform one or more operations comprising:~~

~~obtain an original event attribute;~~

15 ~~fill data based on a predetermined obtaining, from a first service system and by a second service system, original event attributes of an event, wherein the first service system provides attribute data in a first format and wherein the second service system provides attribute data in a second format;~~

~~obtaining support data from a support service system that provides attribute data in a support data format;~~

20 ~~performing, by the second service system, data filling to the original event attributes to obtain the attribute data in the second format based on the support data and a pre-configured event correlation configuration to obtain corresponding attribute data, wherein the predetermined event correlation configuration that comprises an attribute configuration; and~~

25 ~~perform data conversion based on the providing, by the second service system, the attribute data in the second format to a third service system that provides attribute data in a third format for the third service system to perform data conversion~~

based on the original event attributes and the attribute data in the second format to obtain updated event attributes, wherein the third format is different from the second format.

5 16. The computer-implemented system according to claim 15, the operations comprising:

before performing data filling, obtaining the pre-configured event correlation configuration based on at least one of a pre-configured attribute configuration mapping relationship or at least one of the original event attributes.

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17. The computer-implemented system according to claim 15, wherein the pre-configured event correlation configuration further comprises a predetermined attribute configuration and the attribute data further comprises a predetermined attribute.

15 18. The computer-implemented system according to claim 17, the operations comprising:

performing the data filling based on the predetermined attribute configuration to obtain the predetermined attribute.

20 19. The computer-implemented system according to claim 17, wherein the pre-configured event correlation configuration further comprises a correlation data configuration, and the attribute data further comprises correlation data obtained by performing the data filling based on the pre-configured event correlation configuration.

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20. The computer-implemented system according to claim 19, wherein performing data conversion to obtain the updated event attributes comprises:

arranging the original event attributeattributes and the attributecorrelation data to obtain anarranged data; and

30 converting the arranged data based on a conversion mode to obtain the updated event attributeattributes.

21. The computer-implemented system according to claim 20, wherein

converting the arranged data based on the conversion mode to obtain updated event attributes comprises:

obtaining a configuration script based on the predetermined attribute configuration; and

- 5 converting the arranged data based on the configuration script to obtain the updated event attributes.