**What is claimed is:**

1. A data processing method based on a three-dimensional sorting robot, wherein a processor and a sorting assembly are provided on the three-dimensional sorting robot and the data processing method comprises:

   an acquiring step, comprising acquiring identity information of a target sorting shelf in real time, wherein the identity information comprises: a structure data of the sorting shelf and/or positional information of a basket unit in the sorting shelf;

   a binding step, comprising binding the identity information of the target sorting shelf to information of the three-dimensional sorting robot, wherein the binding relationship is associated through a target order executed by the three-dimensional sorting robot; and

   a sorting step, comprising completing a sorting by the sorting assembly for goods to be sorted through the processor according to the identity information of the sorting shelf under a sorting task of the target order,

   wherein the acquiring step further comprises:

   acquiring the identity information of the target sorting shelf by a recognition device connected to the processor, wherein

   the structure data of the sorting shelf refer to a longitudinal and transversal structure of the sorting shelf and positional information of an available basket unit; and

   the positional information of the basket unit refers to a position of the basket unit in a coordinate system composed of the sorting shelf.

2. The data processing method based on the three-dimensional sorting robot according to claim 1, further comprising:

   acquiring attribute data of the basket unit of the sorting shelf, wherein the attribute data comprise: one or a combination of more of dimensional data, volumetric data and type data; and

   matching the goods to be sorted in the target order according to the attribute data, and generating a correspondence relationship of the goods to be sorted and the basket unit.

3. The data processing method based on the three-dimensional sorting robot according to claim 2, wherein the step of completing a sorting by the sorting assembly for goods to be sorted through the processor according to the identity information of the sorting shelf under a sorting task of the target order comprises:

   parsing sorting information of the good to be sorted, wherein the sorting information carries a correspondence relationship with a certain basket unit in the sorting shelf;

looking up the correspondence relationship, and acquiring a coordinate value of the basket unit in a three-dimensional coordinate system composed of the sorting shelf; and

indexing the coordinate value and positioning, and putting the goods to be sorted into the basket unit.

4. The data processing method based on the three-dimensional sorting robot according to claim 3, wherein the correspondence relationship is stored in the three-dimensional sorting robot and the sorting step further comprises: performing a searching based on a form of a correspondence relationship table according to whether the order is finished, to compete the putting for the goods to be sorted.

5. The data processing method based on three-dimensional sorting robot according to claim 3 or 4, further comprising:

querying a sorting shelf number corresponding to current goods to be sorted; and

preparing to put into the sorting shelf when the sorting shelf number is consistent with a bound sorting shelf number.

6. The data processing method based on the three-dimensional sorting robot according to any one of claims 1 to 5, further comprising: an order updating step, comprising

updating a current order condition to be completed when all goods of the target order are put;

releasing a binding relationship of a current sorting shelf and the three-dimensional sorting robot; and

continuing to complete a next order by the three-dimensional sorting robot, and binding the three-dimensional sorting robot with identity information of a new sorting shelf.

7. The data processing method based on the three-dimensional sorting robot according to claim 6, wherein the binding relationship of the current sorting shelf and the three-dimensional sorting robot is realized by inserting the current sorting shelf into a position of the three-dimensional sorting robot, and the binding relationship of the current sorting shelf and the three-dimensional sorting robot is released by pulling out the current sorting shelf from the three-dimensional sorting robot.

8. The data processing method based on the three-dimensional sorting robot according to claim 6 or 7, wherein during a period of executing the target order, the binding relationship of the three-dimensional sorting robot and the target sorting shelf is sole.

9. The data processing method based on the three-dimensional sorting robot according to any one of claims 1 to 8, wherein a plurality of sorting shelves are provided, wherein the three-dimensional sorting robot acquires identity

information of each of the sorting shelves or basket units in real time, and a relationship of the three-dimensional sorting robot, an order being executed and a bound sorting shelf or basket unit is stored and updated.

10. A sorting robot, wherein the sorting robot is configured to perform the data processing method based on the three-dimensional sorting robot according to any one of claims 1 to 9, the sorting robot comprising:

    an acquiring unit, configured to acquire identity information of a target sorting shelf in real time, wherein the identity information comprises: a structure data of the sorting shelf and/or positional information of a basket unit in the sorting shelf;

    a binding unit, configured to bind the identity information of the target sorting shelf to information of the three-dimensional sorting robot, wherein the binding relationship is associated through a target order executed by the three-dimensional sorting robot; and

    a sorting unit, configured to complete a sorting for goods to be sorted through a processor according to the identity information of the shelf under a sorting task of the target order.

11. The sorting robot according to claim 10, wherein the acquiring unit is further configured for:

    acquiring attribute data of the basket unit of the sorting shelf, wherein the attribute data comprise: one or a combination of more of dimensional data, volumetric data and type data; and

    matching the goods to be sorted in the target order according to the attribute data, and generating a correspondence relationship of the goods to be sorted and the basket unit.

12. The sorting robot according to claim 10, wherein the sorting unit is further configured for:

    parsing sorting information of the goods to be sorted, wherein the sorting information carries a correspondence relationship with a certain basket unit in the sorting shelf;

    looking up the correspondence relationship, and acquiring a coordinate value of the basket unit in a three-dimensional coordinate system composed of the sorting shelf; and

    indexing the coordinate value and positioning, and putting the goods to be sorted into the basket unit.

13. A three-dimensional sorting system, comprising: a three-dimensional sorting robot and a sorting shelf, wherein the three-dimensional sorting robot executes the data processing method based on the three-dimensional sorting robot according to any one of claims 1 to 9.

14. A computing device, wherein the computing device comprises:

at least one processor; and

a memory communicatively connected to the at least one processor, wherein

the memory stores an instruction which can be executed by the at least one processor, so that the at least one processor can execute the data processing method based on the three-dimensional sorting robot according to any one of claims 1 to 9.