CLAIMS

1. A warehousing system, comprising: a robot and a control terminal;

the control terminal is configured to send a first control instruction to the robot according to a current task, and the first control instruction comprises material fetching information and first destination information; and

the robot is configured to execute a material fetching operation according to the material fetching information in the first control instruction, and transport a fetched-out material to a corresponding first destination according to the first destination information;

wherein the first destination comprises different conveyor lines corresponding to different workstations, the robot is specifically configured to dock with the conveyor line to transport the material to the conveyor line, and the workstation is provided with a console for performing processing on the material on the conveyor line.

2. The system according to claim 1, wherein the conveyor line comprises a conveyor line inlet; and

the robot is configured to transport the fetched-out material to a corresponding conveyor line inlet according to the first destination information, and dock with the conveyor line at the conveyor line inlet to place the material on the conveyor line to cause the material to move to the console under an action of the conveyor line; and/or

wherein the conveyor line comprises a conveyor line outlet, and the material which has been processed via the console is moved to the conveyor line outlet under the action of the conveyor line;

the control terminal is further configured to send a second control instruction to the robot, and the second control instruction comprises outlet location information and second destination information; and

the robot is configured to move to a corresponding conveyor line outlet according to the outlet location information in the second control instruction, dock with the conveyor line at the conveyor line outlet to fetch out the material which has been processed on the conveyor line,

and transport the material which has been processed to a corresponding second destination according to the second destination information.

3. The system according to claim 2, wherein when the conveyor line corresponding to the workstation comprises a plurality of conveyor line inlets, the control terminal is configured to determine a first target inlet which is not currently parked with a robot from the plurality of conveyor line inlets, take the first target inlet as a first destination corresponding to the robot, and send the first control instruction comprising the first destination information to the robot; and

the robot is configured to transport the fetched-out material to the first target inlet according to the first destination information after completing the material fetching operation.

4. The system according to claim 3, wherein, when the conveyor line comprises a single conveyor line outlet, the control terminal is configured to determine a first target inlet which is nearest to the single conveyor line outlet and is not currently parked with a robot from the plurality of conveyor line inlets; and

when the conveyor line comprises a plurality of conveyor line outlets, the control terminal is specifically configured to determine a first target inlet which is nearest to the farthest conveyor line outlet and is not currently parked with a robot from the plurality of conveyor line inlets, wherein the farthest conveyor line outlet is a conveyor line outlet which is farthest from the console in the plurality of conveyor line outlets.

5. The system according to claim 4, wherein, after the robot transports the fetched-out material to the first target inlet and before the robot places all materials on the conveyor line, when there is a second target inlet that a distance between which and the single conveyor line outlet or the farthest conveyor line outlet is smaller than a distance between the first target inlet and the single conveyor line outlet or the farthest conveyor line outlet and which is not currently parked with a robot, the control terminal is further configured to take the second target inlet as a new first destination corresponding to the robot, and send a third control instruction comprising new first destination information to the robot; and

the robot is configured to transport a remaining unplaced material to the second target inlet according to the new first destination information in the third control instruction, and place the remaining unplaced material on the conveyor line at the second target inlet.

6. The system according to claim 2, wherein, when the conveyor line corresponding to the workstation comprises a plurality of conveyor line outlets, the control terminal is configured to determine a first target outlet which is not currently parked with a robot from the plurality of conveyor line outlets, and after taking the first target outlet as an outlet location corresponding to the robot, send the second control instruction comprising outlet location information to the robot; and

the robot is configured to move to the first target outlet according to the outlet location information in the second control instruction, and fetch out the material which has been processed on the conveyor line at the first target outlet.

7. The system according to claim 6, wherein,

when the conveyor line comprises a single conveyor line inlet, the control terminal is specifically configured to determine a first target outlet which is farthest from the single conveyor line inlet and is not currently parked with a robot from the plurality of conveyor line outlets; and

when the conveyor line comprises a plurality of conveyor line inlets, the control terminal is configured to determine a first target outlet which is farthest from a nearest conveyor line inlet and is not currently parked with a robot from the plurality of conveyor line outlets, wherein the nearest conveyor line inlet is a conveyor line inlet which is nearest to the console in the plurality of conveyor line inlets.

8. The system according to claim 7, wherein, after the robot goes to the first target outlet according to the second control instruction and before satisfying a stopping condition of material fetching, when there is a second target outlet that a distance between which and a single conveyor line inlet or the nearest conveyor line inlet is greater than a distance between the first target outlet and the single conveyor line inlet or the nearest conveyor line inlet and which is not currently parked with a robot, the control terminal is further configured to take the second target outlet as a new outlet location corresponding to the robot, and send a fourth control instruction comprising new outlet location information to the robot; and

the robot is configured to move to the second target outlet according to the new outlet location information in the fourth control instruction, and fetch out the material which has been processed on the conveyor line at the second target outlet.

9. A material handling method, applied to a control terminal, wherein the method comprises:

acquiring a current task; and

sending a first control instruction to a robot according to the current task, wherein the first control instruction comprises material fetching information and first destination information, the first control instruction is configured to instruct the robot to perform a material fetching operation according to the material fetching information in the first control instruction, and transport a fetched-out material to a corresponding first destination according to the first destination information;

wherein the first destination comprises different conveyor lines corresponding to different workstations, the first control instruction is specifically used to instruct the robot to dock with the conveyor line to transport the material to the conveyor line, and the workstation is provided with a console for perform processing on the material on the conveyor line.

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

sending a second control instruction to a robot, wherein the second control instruction comprises outlet location information and second destination information; and the second control instruction is configured to instruct the robot to move to a corresponding conveyor line outlet according to the outlet location information in the second control instruction, dock with the conveyor line at the conveyor line outlet to fetch out the material which has been processed on the conveyor line, and transport the material which has been processed to a corresponding second destination according to the second destination information.

11. The method according to claim 9, further comprising:

when the conveyor line corresponding to the workstation comprises a plurality of conveyor line inlets, determining a first target inlet which is not currently parked with a robot from the plurality of conveyor line inlets; and

taking the first target inlet as a first destination corresponding to the robot, sending the first control instruction comprising the first destination information to the robot; and the first control instruction is configured to instruct the robot to transport the fetched-out material to the first target inlet according to the first destination information after completing the material fetching operation.

12. The method according to claim 11, wherein the determining a first target inlet which is not currently parked with a robot from the plurality of conveyor line inlets specifically comprises:

when the conveyor line comprises a single conveyor line outlet, determining a first target inlet which is nearest to the single conveyor line outlet and is not currently parked with a robot from the plurality of conveyor line inlets; and

when the conveyor line comprises a plurality of conveyor line outlets, determining a first target inlet which is nearest to the farthest conveyor line outlet and is not currently parked with a robot from the plurality of conveyor line inlets, wherein the farthest conveyor line outlet is a conveyor line outlet which is farthest from the console in the plurality of conveyor line outlets.

13. The method according to claim 12, further comprising:

after the robot transports the fetched-out material to the first target inlet and before the robot places all materials on the conveyor line, if there is a second target inlet that a distance between which and the single conveyor line outlet or the farthest conveyor line outlet is smaller than a distance between the first target inlet and the single conveyor line outlet or the farthest conveyor line outlet and which is not currently parked with a robot, taking the second target inlet as a new first destination corresponding to the robot, and sending a third control instruction comprising new first destination information to the robot; and the third control instruction is configured to instruct the robot to transport a remaining unplaced material to the second target inlet according to the new first destination information in the third control instruction, and place the remaining unplaced material on the conveyor line at the second target inlet.

14. The method according to claim 9, further comprising:

when the conveyor line corresponding to the workstation comprises a plurality of conveyor line outlets, determining a first target outlet which is not currently parked with a robot from the plurality of conveyor line outlets; and

after taking the first target outlet as an outlet location corresponding to the robot, sending a second control instruction comprising the outlet location information to the robot; and the second control instruction is configured to instruct the robot to move to the first target outlet according to the outlet location information in the second control instruction, and fetch out the material which has been processed on the conveyor line at the first target outlet.

15. The method according to claim 14, wherein the determining a first target outlet which is not currently parked with a robot from the plurality of conveyor line outlets specifically comprises:

when the conveyor line comprises a single conveyor line inlet, determining a first target outlet which is farthest from the single conveyor line inlet and is not currently parked with a robot from the plurality of conveyor line outlets; and

when the conveyor line comprises a plurality of conveyor line inlets, determining a first target outlet which is farthest from a nearest conveyor line inlet and is not currently parked with a robot from the plurality of conveyor line outlets, and the nearest conveyor line inlet is a conveyor line inlet which is nearest to the console in the plurality of conveyor line inlets.

16. The method according to claim 15, further comprising:

after the robot goes to the first target outlet according to the second control instruction and before satisfying a stopping condition of material fetching, if there is a second target outlet that a distance between which and the single conveyor line inlet or the nearest conveyor line inlet is greater than a distance between the first target outlet and the single conveyor line inlet or the nearest conveyor line inlet and which is not currently parked with a robot, taking the second target outlet as a new outlet location corresponding to the robot, and sending a fourth control instruction comprising new outlet location information to the robot; and the fourth control instruction is configured to instruct the robot to move to the second target outlet according to the new outlet location information in the fourth control instruction, and fetch out the material which has been processed on the conveyor line at the second target outlet.

17. A material handling method, applied to a robot, wherein the method comprises:

receiving a first control instruction sent by a control terminal according to a current task, wherein the first control instruction comprises material fetching information and first destination information; and

performing a material fetching operation according to the material fetching information in the first control instruction, and handling a fetched-out material to a corresponding first destination according to the first destination information;

wherein the first destination comprises different conveyor lines corresponding to different workstations, after handling the material to the first destination, docking with the conveyor line

to transport the material to the conveyor line, and the workstation is provided with a console for processing a material on the conveyor line.

18. The method according to claim 17, further comprising:

receiving a second control instruction sent by the control terminal, wherein the second control instruction comprises outlet location information and second destination information; and

moving to a corresponding conveyor line outlet according to the outlet location information in the second control instruction, docking with the conveyor line at the conveyor line outlet to fetch out a material which has been processed on the conveyor line, and handling the material which has been processed to a corresponding second destination according to the second destination information.

19. The method according to claim 17, further comprising:

when the first destination information comprises a first target inlet, after completing a material fetching operation, handling the fetched-out material to the first target inlet according to the first destination information;

receiving a third control instruction sent by the control terminal, wherein the third control instruction comprises new first destination information, and new first destination information comprises a second target inlet; and

handling a remaining unplaced material to the second target inlet according to the new first destination information in the third control instruction, and placing the remaining unplaced material on the conveyor line at the second target inlet.

20. The method according to claim 18,further comprising:

when the outlet location information in the second control instruction comprises a first target outlet, moving to the first target outlet according to the outlet location information in the second control instruction, and fetching out the material which has been processed on the conveyor line at the first target outlet;

receiving a fourth control instruction sent by the control terminal, wherein the fourth control instruction comprises new outlet location information, and the new outlet location information comprises a second target outlet; and

moving to the second target outlet according to the new outlet location information in the

fourth control instruction, and fetching out the material which has been processed on the conveyor line at the second target outlet.

21. A control terminal, comprising:

at least one processor; and

a memory communicatively connected to the at least one processor;

wherein the memory stores instructions executable by the at least one processor, and the instructions, when executed by the at least one processor, are configured to execute the method according to any one of claims 9-20.

22. A robot, comprising:

at least one processor; and

a memory connected in a communicational way to the at least one processor;

wherein the memory has instructions that can be executed by the at least one processor stored thereon, and the instructions, when executed by the at least one processor, are configured to cause the robot to execute the method according to any one of claims 9-20.

23. A computer-readable storage medium, wherein the computer-readable storage medium has computer-executable instructions stored thereon, and the computer-executable instructions, when executed by a processor, are configured to implement the method according to any one of claims 9-20.