

CLAIMS:

1. A computer-implemented method for a package delivery, the method comprising:
 - receiving, by a computer-implemented system, a customer order;
 - generating, using the computer-implemented system, an order identifier based on the customer order;
 - associating a plurality of items of the customer order with the order identifier;
 - determining, based on the order identifier, an intended delivery destination and an intended delivery time for each item;
 - determining, based on the intended destination and the intended delivery time for each item, a distribution node and a distribution wave for each item, a first container associated with the distribution node, and one or more second containers associated with the distribution node and the distribution wave, wherein the distribution node corresponds to a logistical site relating to the intended delivery destination, and the distribution wave corresponds to a time relating to one of multiple delivery shifts from the logistical site;
 - sending, to a first user-device, a first indication to sort, using a first sortation process at a first location, each item of the plurality of items based on an associated distribution node;
 - receiving, from the first user-device, a first input related to a status of the first sortation process;
 - sending, to the first user-device, a second indication to place the first sorted items at the first location, into the first container associated with the distribution node, without regard to the status of the other items of the plurality of items;
 - receiving, from the first user-device, a second input related to a status of placement of each item in the first container;
 - sending, to a second user-device, a third indication to sort, using a second sortation process at a second location, each item in the first container; and
 - sending, to the second user-device, a fourth indication to deliver the second sorted items in the second container to the intended delivery destination at a time

associated with the distribution wave, without regard to the status of the other items of the plurality of items of the customer order.

2. The method of claim 1, further comprising:

send, to the first user-device, a fifth indication to pick, in response to receiving the customer order, at least one item of the plurality of items of the customer order for the first sortation process, placing the at least one picked item without regard to the status of the other items of the plurality of items.

3. The method of claim 1, wherein the distribution node comprises two or more sub-nodes, and each item in the first container is sorted in the second sortation process based on the sub-nodes and the distribution wave.

4. The method of claim 3, wherein the second container is associated with one of the sub-node and the distribution wave.

5. The method of claim 1, further comprising conveying the first container from the first location to the second location.

6. The method of claim 1, further comprising:

sending, to the second user-device, a sixth indication to remove each item from the first container during the second sortation process; and

sending, to the second user-device, a seventh indication to place the second sorted item into the second container based on the second sortation process.

7. The method of claim 1, wherein the first user-device is associated with the first location, and the second user-device is associated with the second location.

8. The method of claim 1, further comprising displaying, using at least one of the first or second user-device, a visual representation of a packing instruction.

9. The method of claim 1, further comprising updating a database of the computer-implemented system with status of each of the plurality of the items related to one of the first sortation process, the second sortation process, placement in the first and second container, conveyance from the first location to the second location, or delivery.

10. The method of claim 1, further comprising generating a status update, by the computer-implemented system, in response to a customer inquiry related to a status of each of the plurality of the items.

11. A computerized system for a package delivery, comprising memory storage for storing computer-executable instruction; and one or more processors configured to execute the stored instructions to:

- receive a customer order;

- generate an order identifier based on the customer order;

- associate each item of a plurality of items of the customer order with the order identifier;

- determine, based on the order identifier, an intended delivery destination and an intended delivery time for each item;

- determine, based on the intended destination and the intended delivery time for each item, a distribution node and a distribution wave for each item respectively, first container associated with the distribution node and one or more second containers associated with the distribution node and the distribution wave, wherein the distribution node corresponds to a logistical site relating to the intended delivery destination, and the distribution wave corresponds to a time relating to one of multiple delivery shifts from the logistical site;

- send, to a first user-device, a first indication to sort, using a first sortation process at a first location, each item of the plurality of items based on the distribution node, without regard to the status of the other items of the plurality of items;

- receive, from the first user-device, a first input related to a status of the first sortation process;

send, to the first user-device, a second indication to place the first sorted items at the first location, into the first container;

receive, from the first user-device, a second input related to a status of placement of each item in the first container;

send, to a second user-device, a third indication to sort, using a second sortation process at a second location, each item in the first container associated with the distribution wave; and

send, to the second one user-device, a fourth indication to deliver the second sorted items in the second container to the intended delivery destination at a time associated with the distribution wave, without regard to a status of the other items of the plurality of items of the customer order.

12. The system of claim 11, the processor is further configured to:

send, to the first user-device, a fifth indication to pick, in response to receiving the customer order, at least one item of the plurality of items of the customer order for the first sortation process, and to place the at least one picked item without regard to the status of the other items of the plurality of items.

13. The system of claim 11, wherein the distribution node comprises two or more sub-nodes, and each item in the first container is sorted in the second sortation process based on the sub-nodes and the distribution wave.

14. The system of claim 13, wherein the second container is associated with one of the sub-node and the distribution wave.

15. The system of claim 11, the processor is further configured to:

cause conveyance of the first container from the first location to the second location.

16. The system of claim 11, the processor is further configured to:

send, the second user-device, a sixth indication to remove each of the item from the first container during the second sortation process; and

send, to the second user-device, a seventh indication to place the second sorted item into the second container based on the second sortation process.

17. The system of claim 11, wherein the first user-device is associated with the first location, and the second user-device is associated with the second location.

18. The system of claim 11, the processor is further configured to:

generate on at least of one of the first or second user-device, a visual representation of a packing instruction.

19. The system of claim 11, the processor is further configured to:

update a database with status of each of the plurality of the items related to one of the first sortation process, the second sortation process, placement in the first and second container, conveyance from the first location to the second location, and delivery; and

generate a status update in response to a customer inquiry related to a status of the customer order.

20. A computerized system for a package delivery, comprising memory storage for storing computer-executable instruction; and one or more processors configured to execute the stored instructions to:

receive a customer order;

generate an order identifier based on the customer order;

associate each item of a plurality of items of the customer order with the order identifier;

determine, based on the order identifier, an intended delivery destination and an intended delivery time for each item;

determine, based on the intended destination and the intended delivery time for each item, a distribution node, and a distribution wave for each item respectively, first

container associated with the distribution node and one or more second containers associated with the distribution node and the distribution wave, wherein the distribution node corresponds to a logistical site relating to the intended delivery destination, and the distribution wave corresponds to a time relating to one of multiple delivery shifts from the logistical site;

send, to a first user-device, a first indication to sort, using a first sortation process at a first location, each item of the plurality of items based on the distribution node, without regard to the status of the other items of the plurality of items;

receive, from the first user-device, a first input related to a status of the first sortation process;

send, to the first user-device, a second indication to place the first sorted items at the first location, into the first container;

receive, from the first user-device, a second input related to a status of placement of each item in the first container;

cause conveyance of the first container from the first location to the second location;

send, to a second user-device, a third indication to sort, using a second sortation process at a second location, each item in the first container associated with the distribution wave;

send, to the second user-device, a fourth indication to place the second sorted item into the second container based on the second sortation process; and

send, to the second user-device, a fifth indication to deliver the second sorted items in the second container to the intended delivery destination at a time associated with the distribution wave, without regard to a status of the other items of the plurality of items of the customer order.