CRISTAL

WAREHOUSE MANAGEMENT SYSTEM

Multi Orders Picking

Date of Release: 18 July 2016

1. EXECUTIVE SUMMARY

Multi Orders Picks is designed to facilitate picks operations of orders of small items which are stored in hand reach storage locations.

It combines the advantages of Batch / Wave picking with Discrete Orders picking.

In Batch Picking, a numbers of orders with common items are combined and pick to a sorting area where the items are then sorted and packed into individual orders. The process although enhanced productivity, comprises of 2 phases with operators in second phase relying on the performance of the first phases and vice versa.

The sorters would be required to know the products well to ensure that they not pack the wrong item into another order. Typically, sorting stations would be required for the operations which required space to set up. And in some operations, the sorting stations need to be dedicated to specific products.

In Discrete Orders, each order is picked and packed individually.

This practice does not require the sorting stations and their associated space. However, it requires the pickers to make as many trips/passes around the warehouse as the number of orders.

With Multi Orders Picking, a number of orders are batch and picks in a single pass. However, the pickers do not pick the total quantity of each item.

Instead, they pick the orders individually.

Each order to be picked are assigned a tote, carton or a bag and labelled accordingly. They would go to the locations that hold the items to be picked as allocated by the system.

The locations to be picked from are sequenced based on the walk sequence of the warehouse which is optimized to facilitate the picking process.

At each location, the pickers would pick and place the quantity as required by each order in their individual tote/carton/bag. On completing the batch picks, the goods are sorted and packed and ready for shipment – remembering that the packages are already labelled before the start of the pick cycle..

The function is further enhanced to batch or wave picks a number of orders with (high level of) common items. This is facilitated by displaying the number and percentage of commonality of orders against the orders with the most items.

This function is introduced for use with pick carts similar to below. However, current design is for single sided.

CRiSTAL also provides customised picking carts completed with a tablet and barcode scanner that are optimised for operation with the function.

1.1. Limitation

However, due to complexity of that a picking operation faces with different products, a number of limitations are deliberately designed into it the in order to keep function and operation simple:

1. Orders are expected to be fully pick.

2. Partial or 'no-picks' is not permitted

3. Each location is recommended to hold only 1 items – in effect a Pick by Location function

    a. If attributes controls, such as Item Size, Color, Class, they are preferably in separate locations.

        i. This is however not mandatory with the current enhancement, though separate location is still preferred as mixed stock slow picking as pickers would need verify the right attributed stock is picked

    b. No attributes input is required such as Serial Number, Catch Weight…

4. The maximum number of orders to be picked is limited to 6, but dependent on the screen width

    a. This is not a mandatory limitation with the enhancement.

5. Order Numbers must be of alphanumeric only and with no space in between, preferably not more than 10 characters

The function is designed for use on a tablets or a desktop mounted on a trolley, preferably with touchscreen monitor – the grid box rows' height are increased to facilitate finger touch.

Scanning of Sales Order number is incorporated with the enhancement to facilitate picks confirmation.

1.2. Release Notes

The function is a menu option in the desktop under Operation | Warehouse | Multi Orders Picking in Release 5.400 Build 868.

This function is also available as a standalone on request.
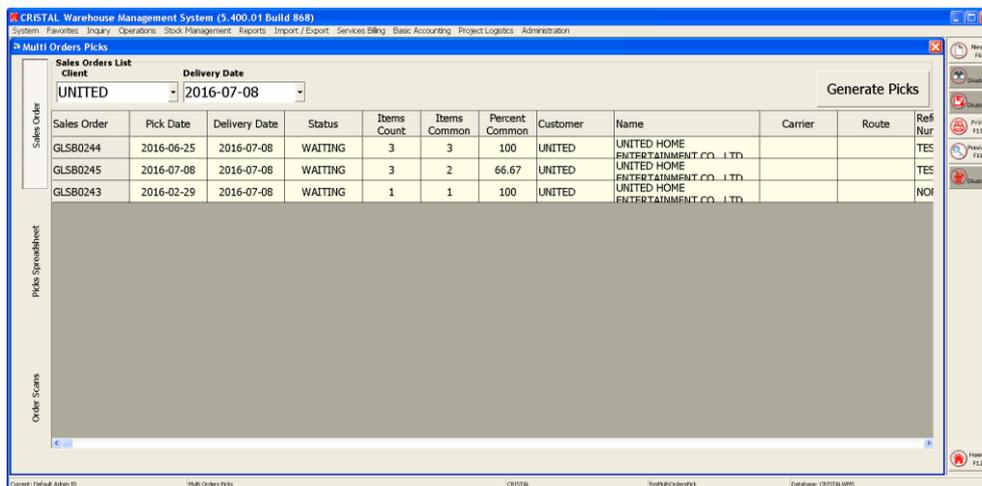
2. FUNCTION

The function comprises of features, controlled by tab buttons

1. 'WAITING' picks sales orders

2. Picks requirement (with touchscreen picks confirmation)

3. Combination of Picks requirement with order scan confirmation

4. Picking Cart operation

2.1. Order Selection

Orders selection for picking is based on Client and Delivery Date.

On specifying of the Client and Delivery Date, sales orders that are in WAITING or BACKOPRDER status are listed, sorted in sequence of Percent Common in relation to the first order – which is the order with the most required items.

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1. Users select the order to be picked by double click on the sales order

   a. Selected orders will be bolded.

   b. There is no limit incorporated on the number of orders can be selected, but for practical purpose,

      i. 6 to 7 orders are advised, if using the touchscreen pick confirmation mode as users will need to scroll the display when too many orders are selected for picking

   c. Print he Sales Order Label to label the carton / packing that is assigned for the selected order
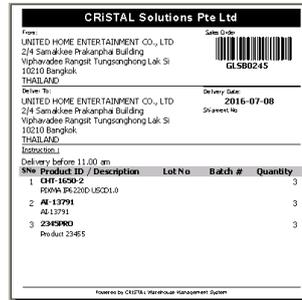
2. Click on Generate Picks command button to trigger the processing – this effectively generate a wave pick work order.

2.2. Pick Works Orders

The Works Order will be displayed in the Works Order combo box and the page will be switched to the Picks requirement page

The picks are displayed as follows:
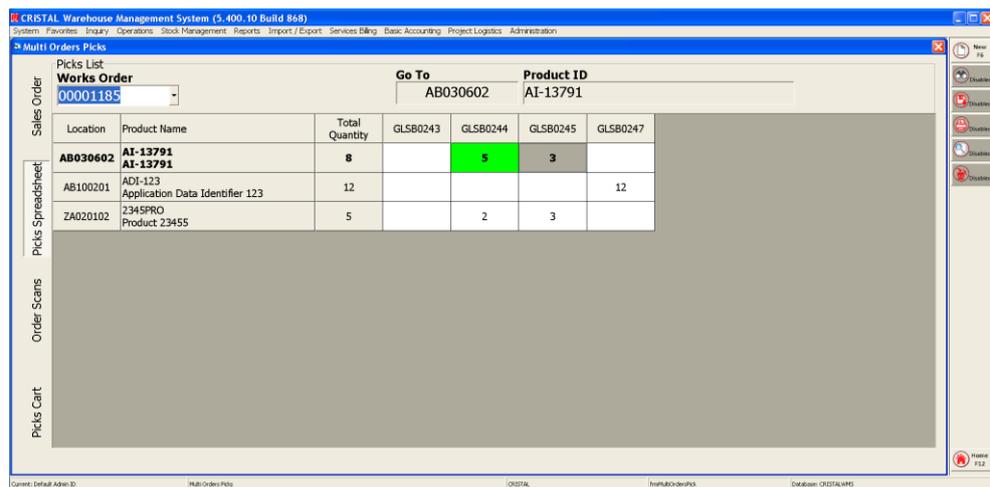
The listing is sorted by Location sequence with the Total Quantity showing the total requirement and individual order's requirement by columns.

1. Click on the cell to highlight the location and order to pick

   a. The cell background will change to green

2. Double click a cell confirm the pick (sales order and quantity).

   a. The cell background will change to grey when the confirmation is successfully processed.

After all the picks are confirmed, select Sales Order tab button to select and start the next batch.

2.2.1. Partial Works Order Picks Continue

1. Select the Picks Spreadsheet via the Dropdown button at the Works Order

2. Select the required works order from the popup windows.

3. The process to confirm is as above.

2.3. Pick By Orders Scans

The option to use scanner to confirm a picks is added in Build 868.

This option is enabled to facilitate picking of products that are attributes controlled. However, they are limited to:

1. Lot No

2. Batch No

3. Expiry Date

4. Production Date

5. Item Size

6. Item Color

7. Item Class

Selecting the tab button 'Order Scan' brings a second section which list the order to be picked for the first row which automatically selected.

As the locations are already sequenced, pickers are not allowed to select other locations to pick first.
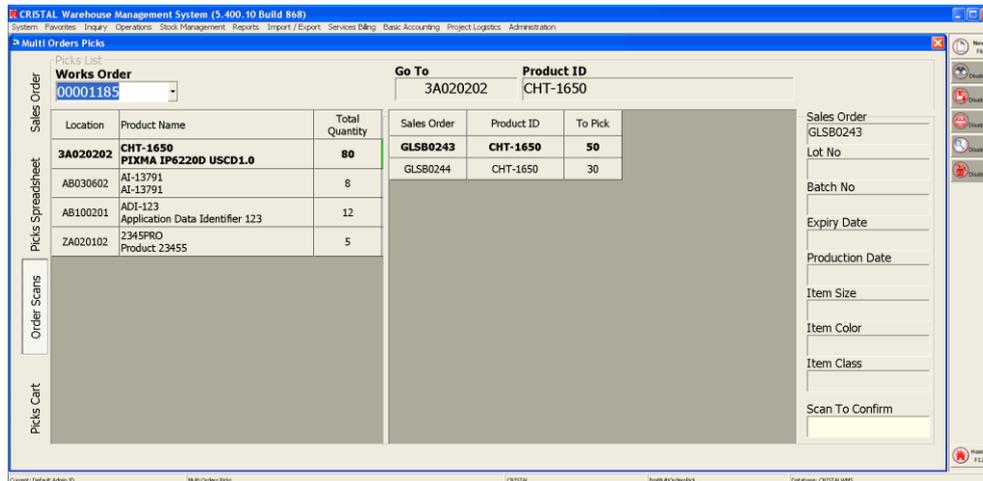
1. Go to the location

2. Pick the Product ID (with the required attributes if applicable).

3. Scan the sales order for which the item is pick for to confirm the pick

4. On completion of the picks in the location, the location requirements will be removed from the first section and the next location is automatically selected
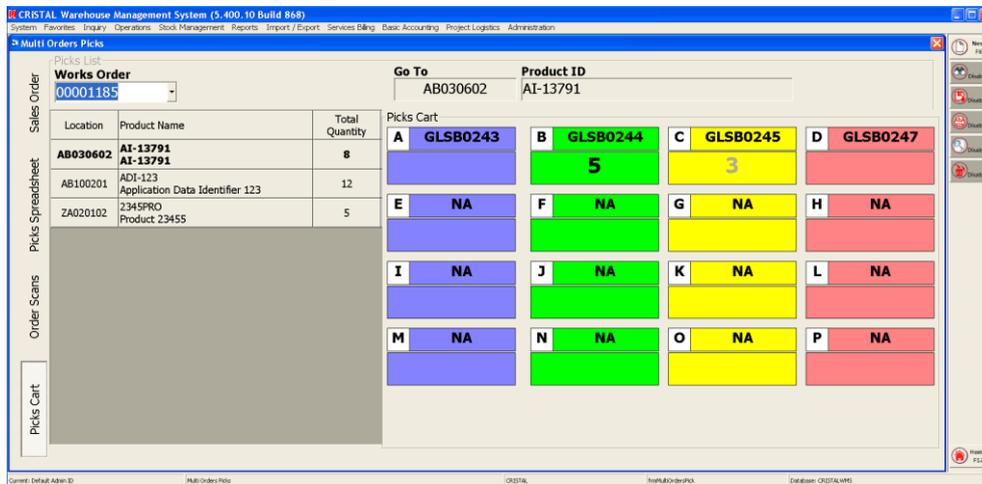
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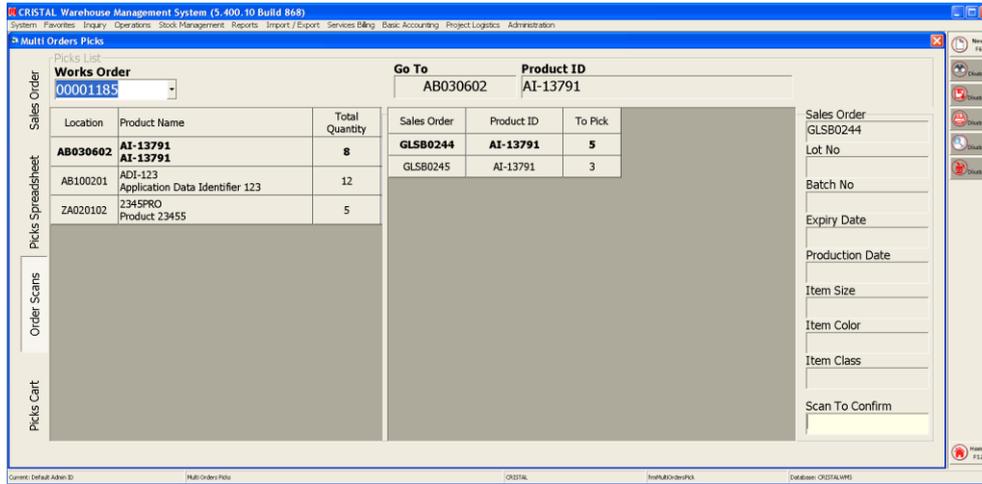
5. Repeat until all picks are completed

2.4. Picking Cart

The option is added to overcome the limitation of picking of more than 6/7 orders in the Picks Spreadsheet.

This option enable up to 16 orders to be picked in a single pass.

As in Scan Order, users are not allow to select location to pick. They have to follow the sequence as provided as the locations are sequenced in walk sequence of the location.

The tote trays are identified as A to P to facilitate easy identification of the orders.

1. Go To the location to pick

2. Pick the quantity required by each order.

3. Double click on the quantity tp confirm the picks

   a. The quantity digits will change to grey to signify picks done.

   b. Repeat until all orders required from the location are picked.

4. Once the required picks are confirmed, the row in the first section will be removed and replaced with the next location

5. Repeat until all requirements are picks and confirmed

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Appendix A.   REVISION NOTES

A.1.   Development History

- This function is first introduced in Build 833.005.The UI is optimised for touchscreen monitor.

- This is further enhanced in Release 5.400 Build 868 to facilitate hybrid batch-discrete order picking