

SYSTEM SPECIFICS:

This System Tour is of a BOOK RETURNS PROCESSING SYSTEM. The LHE facility also has an Order Picking System which is not presented here.

The BOOK RETURNS PROCESSING SYSTEM is designed to process over 190,000 returned soft cover and hard back books daily. The return 'claim' is unpacked. Each book is scanned to the return claim. The books are then sorted to one of approximately 250 publishers or restocked into the Levy order picking system. The sortation process is accomplished with a primary and secondary sorting system utilizing conveyor and Put-to-Light technology. Returned books are packed into cartons and onto pallets for LT and LTL shipments back to the publishers for credit.

Primary Sort:

At (18) custom designed work stations returned books are removed from totes and scanned into the WMS system. The Put-to-Light system directs the placement of the books into either totes or shipping cartons using (16) positions. (8) of the positions are for high-volume publisher cartons, the remaining (8) are for mixed-publisher totes. PTL rates of over 800 units per hour are achieved.

Secondary Sort, Low Volume:

The primary sort cartons and totes are conveyed and sorted to two secondary sort areas. Mixed-publisher totes go to one of four Return-to-Publisher, RP, Secondary Sort work stations or to the Quality Control / Reconciliation work station. The RP work stations all use a Put-to-Light system to direct the secondary sorting of mixed-publisher totes into single-publisher cartons.

Secondary Sort, High Volume:

The single-publisher cartons from the primary sort area are sorted directly to a case sealer line for carton closing and then conveyed to the second sortation conveyor and diverted to one of five lines for manual sub-sorting and pallet building.

Put-to-Light:

Each Primary Sort work station uses Lighthouse Selection Put-to-Light display units to direct the primary sort of returned books into single or mixed publisher totes or cartons. The operator will scan a book and the PTL system will indicate which of the (16) put positions to place the book. Pressing the task-completed button allows the WMS to associate the scanned book to the tote. Put rates of over 700 units per hour are consistently achieved.

The Secondary Sort work stations also use the Lighthouse Selection Put-to-Light display units at the Return-to-Publisher and Reconcile work stations. At a work station, a mixed-publisher tote is hand scanned. Then, after hand scanning an individual book, the PTL units indicate which of the carton positions the book should be placed. Pressing the task-completed button allows the WMS to associate the scanned book to the carton for a complete carton manifest.

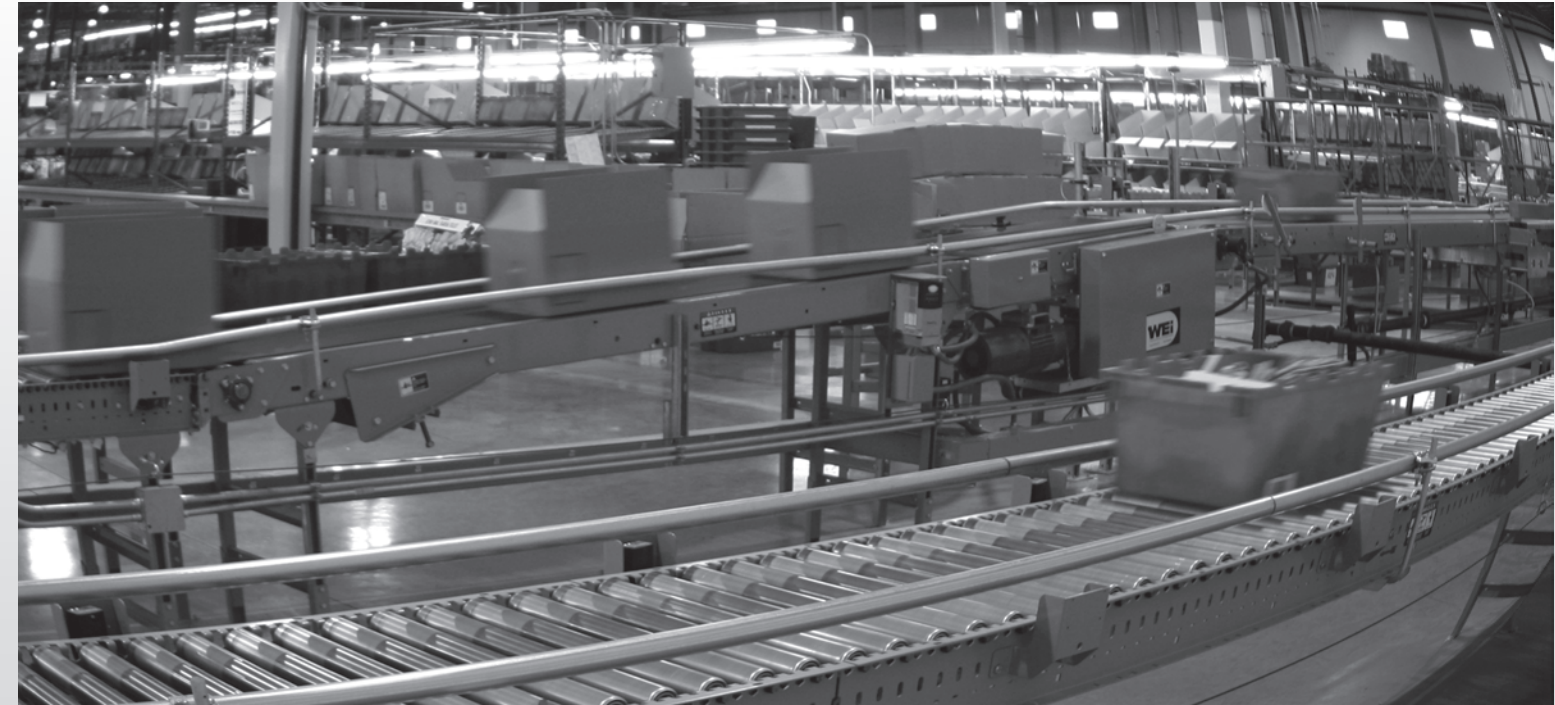
A Real-time interface to the Levy WMS is used that allows the PTL system to retrieve publisher data on an as-needed basis, minimizing the duplication of "master" data over the two systems. All Put Data is collected on a publisher and claim basis to provide the customer with carton and item level data.

Sortation Conveyor:

Two Autosort 2 Bow Arm sorters are used for the Secondary Sort system. Each air operated sort station will divert cartons and totes at a rate of 30 cpm.

Two-Way Merge:

The two-way merge uses AutoRoll 24 VDC motorized roller conveyors to accumulate and merge. An AutoRoll incline conveyor is used to accumulate (on the incline conveyor) just before the merge.



LEVY HOME ENTERTAINMENT

Romeoville, Illinois

With over 600 million in annual sales, Levy Home Entertainment, known in the industry as LHE or Levy, provides books and services surrounding books to mass-market retailers such as BJ's Warehouse Clubs, K-Mart, Meijer, Rite Aid, ShopKo, Stop and Shop, Target, Toy's R Us, Walmart, and others. Additionally, LHE supplies books and warehousing services for Wholesaler Source Interlinks customers including Albertsons, Kroger, Walgreens, Safeway, and many more.

Levy offers an array of supply chain services for books, warehousing, picking and shipping to complex planogramming of each retailer's consumer book offering and full in store merchandising services. As a book distributor, Levy Home Entertainment buys from over 300 publishers, and then assort books so that retail customers have the best items to produce the greatest sales per square foot for their particular stores.

Founded in 1962 as an offshoot of the Chas Levy Company, it has grown dramatically over the years, especially in the last 10.

FACILITY FACTS:

Levy Home Entertainment Warehouse
Romeoville, IL
Warehouse Size: 400,000 sq ft
Number Of Docks: 6
Throughput (avg.): 125,000 units/day
Throughput (peak): 190,000 units/day
Throughput (year): 33,000,000 units/year
Employees: 30 full time, 100 seasonal
Fulfillment Accuracy: 99.9 %
Product Handled: Paperback and hard cover books
conveyed in carton or plastic totes.

SYSTEM DESIGN, ENGINEERING AND INTEGRATION

• **Wynright**
www.wynright.com
(847) 595-9400

SYSTEM CONTROLS

• **Wynright Control Solutions**
www.wynright.com/cs

PUT-TO-LIGHT SYSTEM

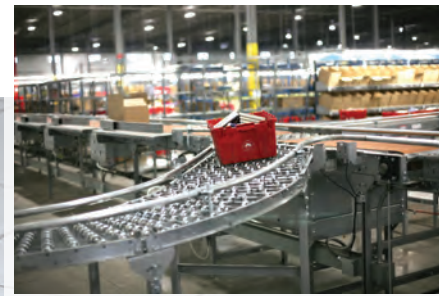
• **Lighthouse Selection**
www.lhselect.com



6a. Secondary Sort - High Volume



7a. Two-Way MDR Merge



7b. Sorter Loop



8a. Bow Arm Sorter



8b. Merge Table

Secondary Sort
High Volume

6

6a



5a. Return to Publisher (1)



4a. Return to Stock



3a. Return to Publisher (2)



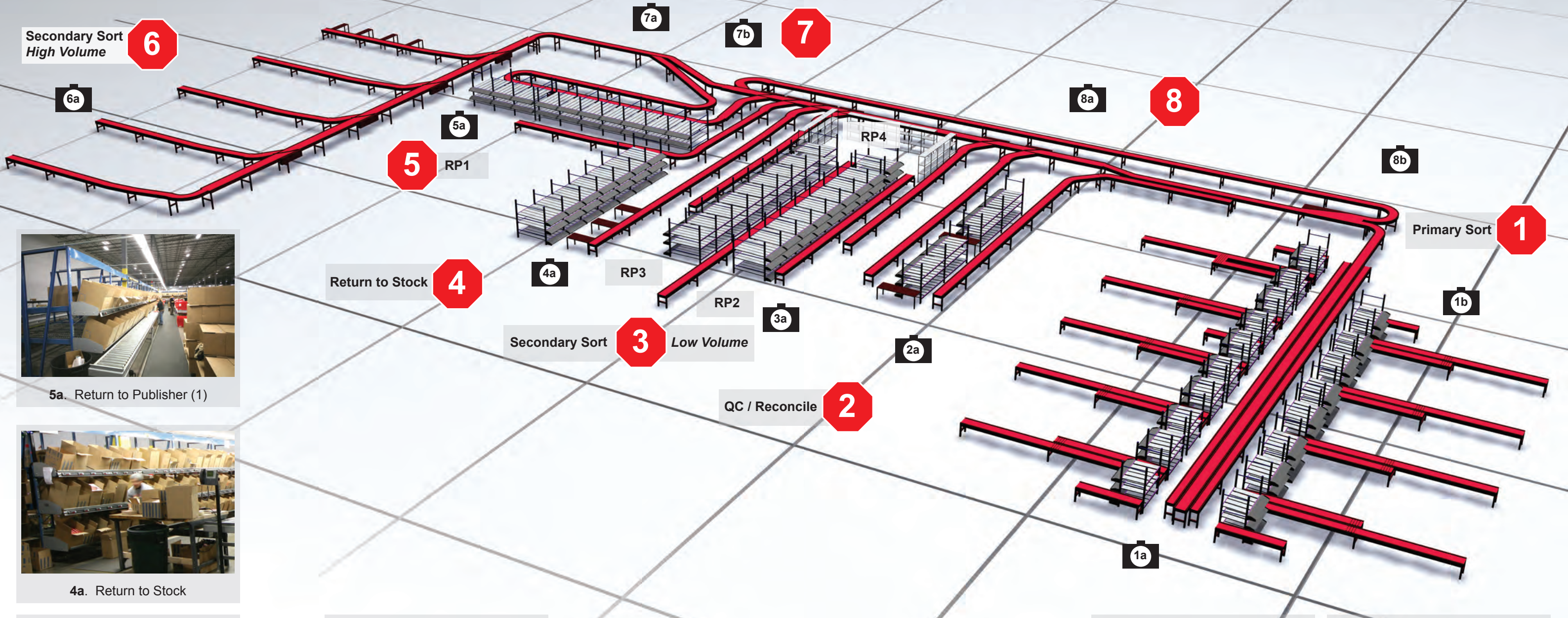
2a. QC / Reconcile



1a. Primary Sort



1b. Primary Sort



Site Map for

LEVY HOME ENTERTAINMENT

Romeoville, Illinois