Conveyor Tote Management

Key Features

- Build, store, retrieve, split and consume tote "trains. Where a tote "train" consists of one to a user defined number of totes requiring similar work.
- Optimize and prioritize work queues that manage the storage, retrieval, sorting, marking (ticketing), and allocation of goods placed in tote "trains".
- Configure routing maps to control the movement of tote "trains" from source to destination using switched conveyor systems.
- Direct the movement, storage and retrieval of tote "trains" using hand held mobile terminals.
- Identify individual totes and tote "trains" using barcodes or optionally RFID transponders.
- User defined reports including WIP aging reports, production reports etc…

Technology

Linux, Oracle based for easy implementation.
The Conveyor Tote Management System can operate as a stand-alone system or can be integrated into all major WMS systems.
River Consulting Inc. manages all conveyor process control systems.

Tote Trains

A tote "train" consists of a user-defined number of totes that contains goods or product requiring similar production steps. This "train" is then identified with a WIP ticket that identifies the production steps required. Once the tote "train" is built and the WIP ticket applied, the "train" is placed in a prioritized work queue for the first production step.

Tote Train Hotels - Storage and Retrieval

Based on a "train's" priority certain production areas may not be immediately available for processing. These "trains" are then directed to a "Hotel" or storage location pending availability of the production area. Retrieving (pulling) "trains" from a Hotel is directed and can be grouped by priority, SKU, hotel location (closest to current location first), or destination.

Routing Maps

All conveyor source, production, hotel, and consumption locations and intermediate switch points are identified by the user and entered into the system configuration software. The system will then compile routing maps that are used by River Consulting Inc.'s switching software to control how tote "trains" are routed from source to destination over the conveyor system.

Real Time Direction of Tote Train Movement

Supervisors using a full screen GUI application manage the manipulation and prioritization of work scheduled for production. As WIPs (tote "trains") are selected they are placed into work queues and made visible to users using hand held mobile terminals. Trains are then scanned, released and directed to their respective destination using these hand held terminals in real-time. WIPs can be re-prioritized or re-routed using these terminals.

WIP and Tote Train Identification using Barcodes or RFID

WIP tickets and individual totes can be identified using either barcodes or RFID transponders. Fixed point scanners and hand held laser scanners are used for barcodes. RFID portals and hand held readers are used for RFID transponders. A full suite of "canned" and user-defined reports are available from the system.