Miramar Automation

m-WMS

www.miramarautomation.com

Tired of night inventories?

Declined sales of in-stock items?

Do you collect expired product?

Real-Time Barcode Product ID and Warehousing

Comprehensive Real-Time Barcode Product Identification and Warehouse Management System (WMS), includes hardware, software, installation, training and support. Designed for the intranet (Local Area Network), the internet, VPNs and wireless 802.11 technologies. Optional forklift-mount and handheld wireless terminals equipped with long-range laser barcode readers. The system can work with one or several industrial grade, high performance barcode printers, enabled with built-in Ethernet TCP/IP print servers, also with direct network interface to automated production equipment such as packers, palletizers and wrappers. This direct interface allows a fully automated printing and application of barcode labels as well as the simultaneous record entry into the system database. **No more missing pallets.**

Developed, marketed and supported by Miramar Automation, LLC, the code was written by Bottling Technology Professionals, Miramar's Sister company in Mexico, where it can be customized, modified, expanded and upgraded at very competitive programmer rates. **Miramar Automation is a world class industrial automation system integrator and OEM.**

Features:

- **Real-Time** and Automated entry to the system database of each production unit with simultaneous printing and application of barcode/RFID labels.
- **Wireless** coverage of mobile terminals.
- **Web TCP/IP** Environment: Client PCs and terminals do not require any expensive runtimes or special configuration, the provided Internet Explorer is the only software needed for connection with the system server.
- **Open licensing**, no expensive runtimes or thin clients required.
- The system can be **customized**, modified, expanded and upgraded at very competitive programmer rates. Miramar uses software engineering talent in Mexico and India.
- **Microsoft SQL Server** Database, compatible with SAP. Runs on Internet Information Sever IIS.
- **Custom reports** with Seagate's Crystal Reports.
- Optional **automatic applicators**.

RFID 4u®

m-WMS can be easily adapted to **RFID technology**.

We utilize RFID interrogators, antennas and tags made by **Omron**. Omron's V-740 & V-750 readers are the the most powerful and programmatically versatile in the market today.

Industrial grade high performance **Tharo automatic label applicators.**

Paper, Removable or Plastic (Polypro-Weather proof) labels & RFID tags.

Any size + Any design + Database linked.

Wireless Forklift-Mount Terminals or Handhelds with Windows CE/PocketPC operating system.

Equipped with Long-Range Laser Barcode & RFID Scanners.

Real-Time Wireless access to the system SQL Server database.

Hot Spot type Wireless 802.11 Access points for total warehouse coverage, indoor and outdoor.

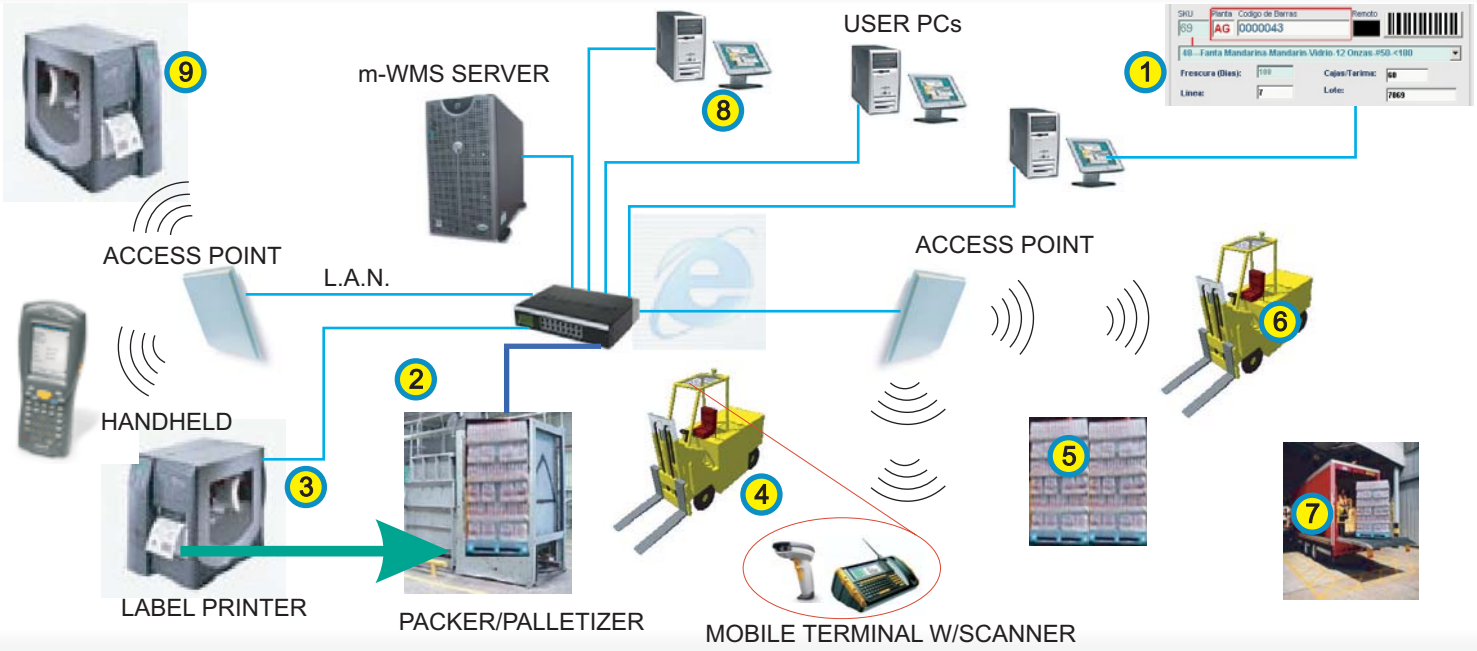
Barcode	Line	Shift	Lot	Date Produced	Date Sell By	Days to Sell By	Cases	Pattern Package
1 coca cola RET-GLASS 195 mL								
AG 0000039	1	1	44	14-Jul-2005 14:20	01/10/2006	-272	60	3 X 7
AG 0000040	1	1	44	14-Jul-2005 14:20	01/10/2006	-272	60	3 X 7
AG 0000041	1	1	44	14-Jul-2005 14:20	01/10/2006	-272	60	3 X 7

Miramar Automation, LLC
832-615-3588

Miramar Automation

www.miramarautomation.com

m-WMS Complete System



Operational Example:

1. The production supervisor logs in the m-WMS print services agent and selects the internal SKU (Product code) to be produced next. The system database contains a product table with all the attributes and characteristics of that item, such as SKU, name, description, size, sell by date, cases per pallet, container ID, etc. The supervisor only provides lot and line numbers. This setup is only necessary when a change in lot or SKU occurs. It is possible to change lot number remotely.

2. The palletizer releases a pallet and sends a signal to the m-WMS server, this event automatically creates a new entry into the pallet table, containing all the attribute information such as pallet ID, barcode, product code or SKU, cases per pallet, plant ID, line, lot, date, time, sell by date, etc. on the pallet just released and pending or ready to be stored.

3. At the same time, the print services agent sends all the pallet information to the printer, via local area network to issue and automatically apply a custom label containing one or several barcodes, as well as relevant text such as sell by date in oversized font, product name, SKU, etc.

4. A forklift, equipped with a wireless terminal and long-range laser scanner, arrives to pickup our pallet. The operator, previously signed in, scans the barcode and the entire pallet information shows up on his screen. At this time he can adjust that information if necessary, such as cases per pallet, in case of an incomplete pallet.

5. The forklift operator positions our pallet in the plant's warehouse, this position can be suggested by the system. At this time, the operator either scans the location code from the ceiling, wall, floor or simply uses his keyboard to enter this information into the database in real time.

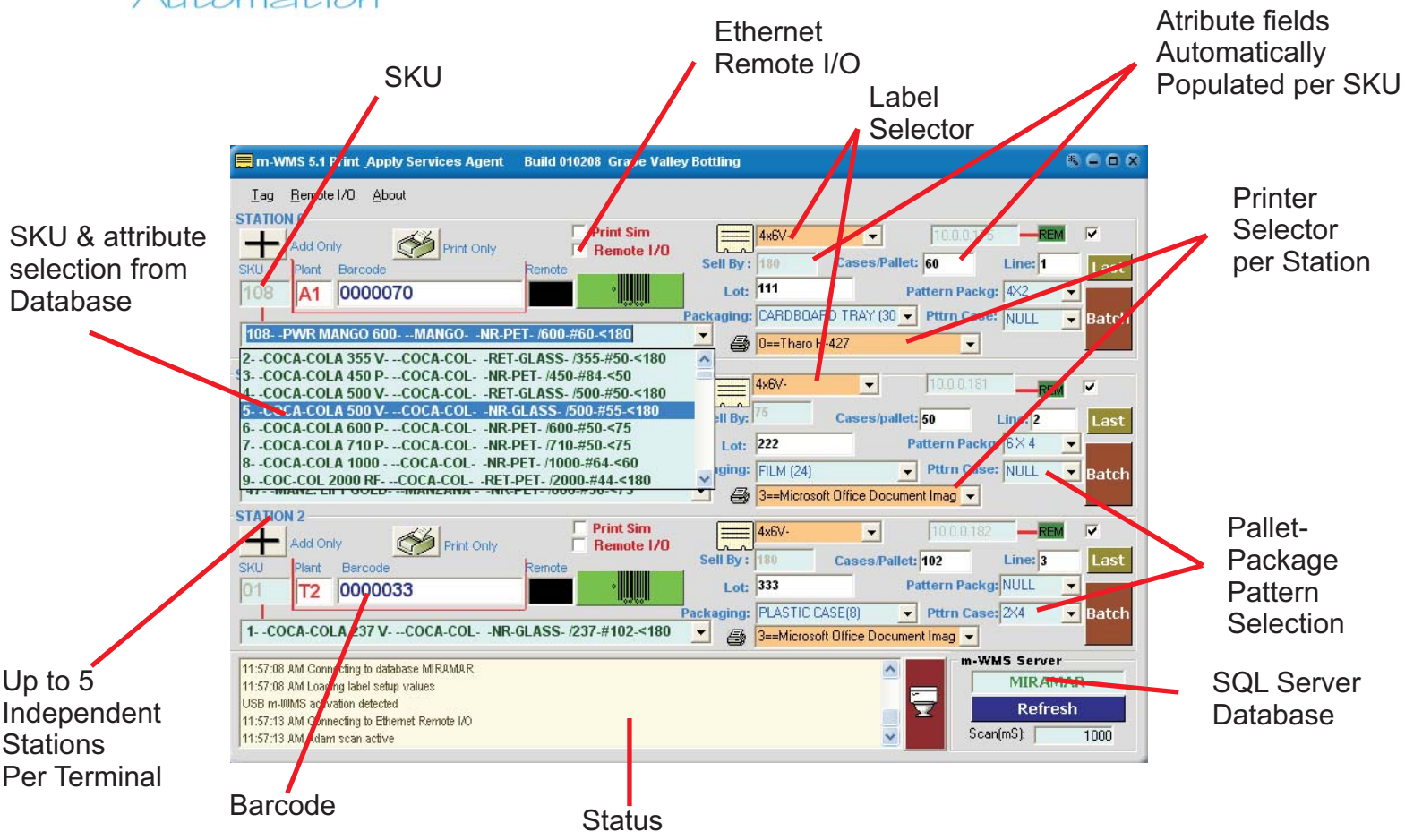
6. The forklift operator receives a request for pallet, enters this SKU from his terminal and the system responds with a list of the oldest pallets and their location code.

7. The forklift operator finds a pallet, scans it and moves it to its new destination, in the case of a truck or freighter, he also provides a freight or shipping code.

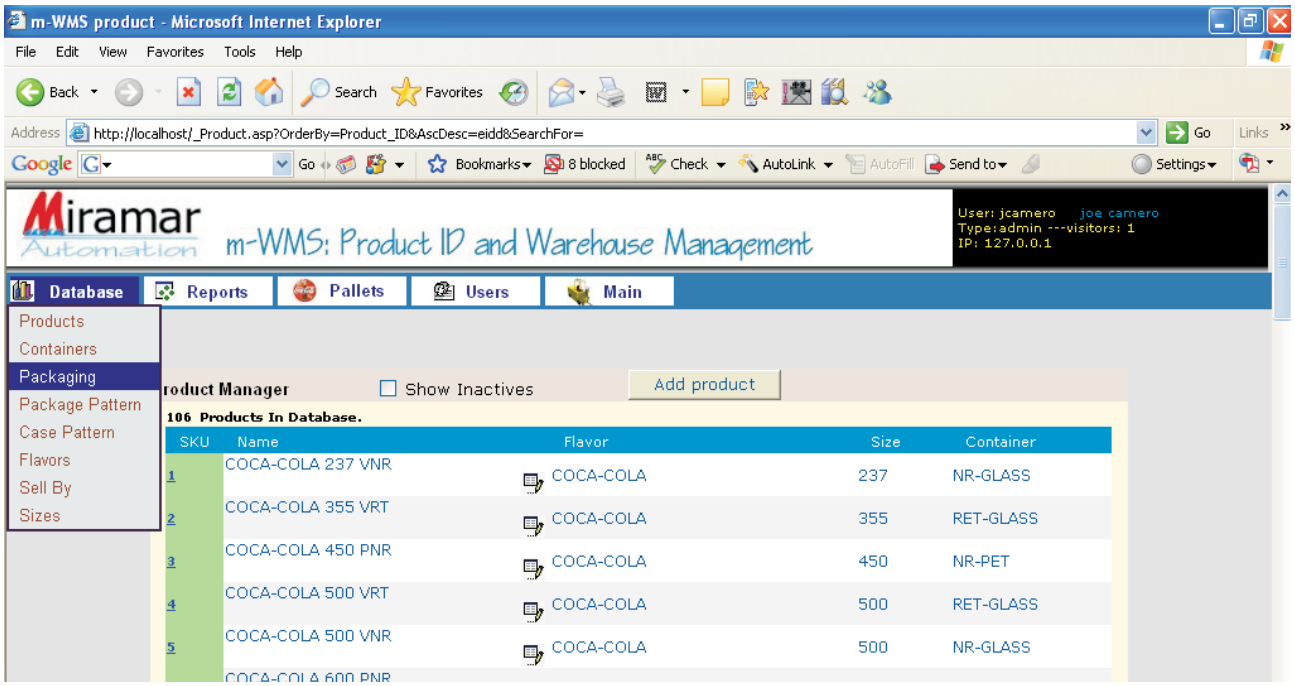
8. Later, the warehouse manager logs in from his/her PC and prints out a General Warehouse Report, sorted by SKU and sell by date; he/she notices some pallets "in alarm", prints out the report and exports to MS Excel to make some manipulations.

9. Even later that day, a freighter arrives to the plant with several pallets produced at another plant, those pallets are not labeled. Not a problem, the warehouse manager launches the print services agent from his/her PC and prints a batch of barcode labels, automatically making those entries into the system database.

Miramar Automation, LLC
832-615-3588



Once a product station is configured, m-WMS automatically generates unique identifiers (Barcodes), sell by dates, etc, logs each record into a Microsoft SQL database, prints and applies the correct label at the appropriate station.



Administrative web interface for database configuration and management