Warehouse Management System

The Ultimate Link In Supply Chain Mgmt

www.e-warehousing.com

edgEVOLUTION™

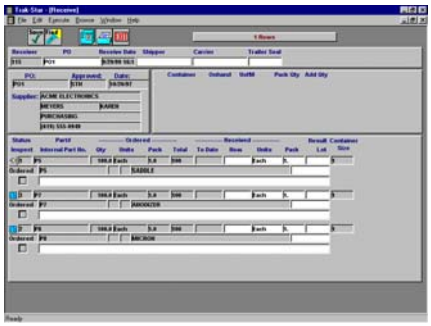
The edgEVOLUTION™ (EVOLUTION) Warehouse Management System (WMS), by E.D.G. Enterprises, Inc., (EDGE) is a strategic inventory management solution designed to operate inside the facility and outside the four walls extending value, efficiency and execution speed across the enterprise and extended supply chain. The system provides maximum flexibility to manage the vital resources that impact efficiency and peak performance within the distribution network with total connectivity to customers and suppliers.

With a myriad of capabilities and seamless integration, Evolution provides total accountability with complete audit tracking to minimize costly on-hand inventory, reduce labor costs, increase material management efficiency, worker productivity, and operations visibility to support "just-in-time" fulfillment.

Evolution utilizes state-of-art technology to maximize execution speed, velocity and performance across the Supply Chain. Every function, from Receiving through Shipping, Inspection to Tool Crib Management, from supplier visibility to customer connectivity, our system solutions and implementation services will significantly enhance Supply Chain Management (SCM) throughout the enterprise.

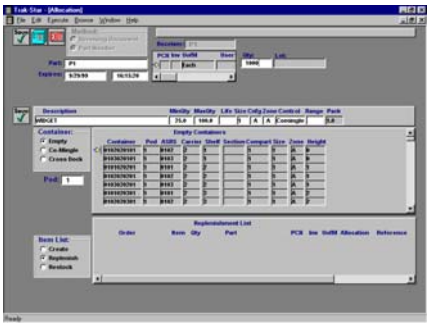
Receiving

- Verify receipts against purchase orders
- Master & Innerpack quantities with customer configurable units to track customer-specific and in-house SKUs
- Conveyor induction
- RFID Enabled
- Supports Voice Distribution Management (VDM) Radio Frequency (RF) and Bar-coding
- Assigns receiver number
- Prints bar-code put-away label
- Download PO info from host system
- Uploads receipts to host system
- Point-of-purchase, ship-to, and invoice information



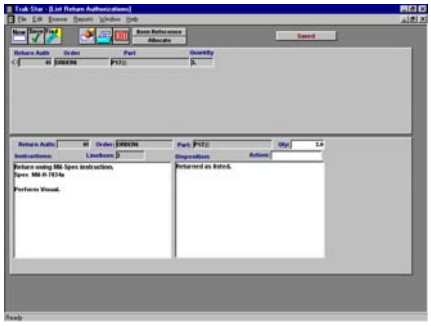
Allocation

- Allocate to various segregated storage locations
- Co-mingle stock according to FIFO put-away rules
- Cross-dock
- Quarantine parts for inspection
- Fulfill back orders directly
- Configure part master
- Date, lot/serial number & FIFO management
- Automatic/Manual location assignment with random and/or dedicated slots
- Automated pallet & tote induction
- Automated cubing
- Automated weighing



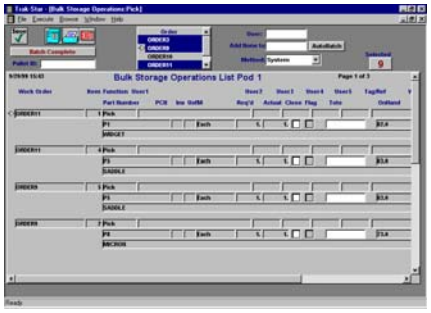
Restocking/Returns

- Restock against return authorizations, sales orders, part numbers, and more
- Customer configurable restocking criteria
- Segregate storage of restock items
- Operator override of restock criteria



Bulk Operations

- Simultaneous pallet, case, & split case picking
- Multiple storage locations with FIFO by receipt date or lot number
- VDM and RF directed replenishment, picking, cycle counting, and deplenishment of obsolete items
- RFID Capable – all four classes of RFID technology are supported
- Manual relocation and host directed transfers
- Manage raw materials and finished goods
- Define and pick assemblies/kits
- Batch-pick unlimited number of orders
- Min and max storage levels, supplier info, weight, volume, shelf life
- Pallet and tote tracking by bar code ID
- Unlimited number of container configurations
- Work interleaving
- Optimized sequencing by location
- Exception handling



EDGE utilizes Client/Server technology for efficient execution speed within warehouse/distribution operations. Client/Server technology is the premier system architecture that provides break-through performance. Evolution's database supports Oracle™ and SQLServer®
-- the most popular databases worldwide.

Finally, by leveraging XML (Extended Mark-up Language) transactions, Evolution has been developed to support Internet browser-based technology that extends the reach of distribution operations beyond the four walls of the warehouse. This architecture is quickly becoming the "workhorse" engine of the Supply Chain, replacing cumbersome and inefficient EDI transactions.

EDGE provides a comprehensive suite of inventory management solutions tailored to enhance warehouse operations:

- Enterprise -- Full SCM Capability
- Standard – Four Wall WMS
- Single-User -- Small Inventory Management Systems
- Tool Crib -- Maintenance Management Application

With superior implementation service, system maintenance and support, EDGE provides a complete solution as your single source vendor for your Warehouse Automation, Distribution Management and Supply Chain Execution needs. In addition, by leveraging our System Integration Partners, we can to extend our value through automation design/redesign of your warehouse, hardware configuration, and consulting services for a price well below our competition. Let us back up this claim be providing you with a complimentary Return-On-Investment Analysis.

Automated Storage

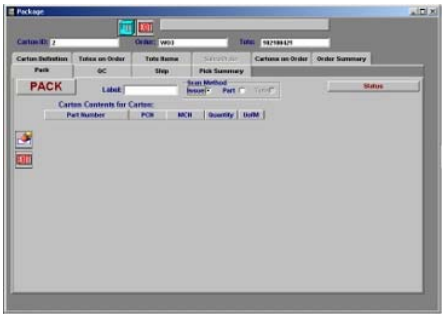
- Automated Guided Vehicles (AGV)
- Conveyor systems
- Automated Storage & Retrieval Systems (ASRS)
- Horizontal & vertical carousels, vertical lift modules, pick-to-light.
- Process optimization of lines picked per hour by operator
- Static Pick & Static Pass through Dynamic Pick & Dynamic Pass options
- Static or Dynamic batch picking
- Mirrored carousel pod picking
- Product consolidation using carousels
- Batch replenish, batch relocate, & batch transfer work orders
- Hot picks, cycle counting, off carousel picking, weigh scale integration, and full bar code integration
- Batch pre-defined assemblies/kits
- Optimizes pick sequence and tracks by tote ID

Inspection

- Assign and perform inspections
- Un-quarantine parts
- Schedule inspections
- Generate component inspection histories
- Large variety of schedule criteria
- Download inspections from host
- Manually define inspections
- Reject failed parts
- Disposition rejected parts reporting

Maintenance Mgmt

- Define, build, and pick Preventive Maintenance (PM) kits
- Issue repair kits
- Schedule PM by numbers or areas
- Issue tools and track destination and end-users
- Track calibrations by expiration date and lead time for re-calibrations
- Primary & secondary supplier information
- Track usage & dollars by equipment
- Maintain labor hour statistics for repairs



QC/Pack

- Perform quality control checking prior to shipping
- Automatic packaging with pre-specified container sizes
- Weigh scale integration
- Generate printed and/or bar coded manifests
- Single point or multiple lane consolidation
- Consolidate orders from multiple pick areas
- Track product by tote ID

Kitting

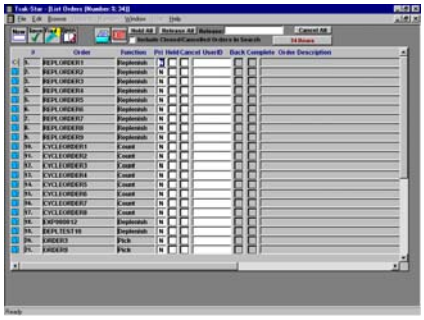
Evolution processes kits/assemblies reducing pick time. This feature includes the ability to:

- Pre-specify Bills of Materials (BOM)
- Download kit/assembly orders as downloads from the host computer
- Manually define kits
- Pull kits from stock

Cycle Counting

Cycle Counting with ***Evolution*** is simple and provides functionality to include:

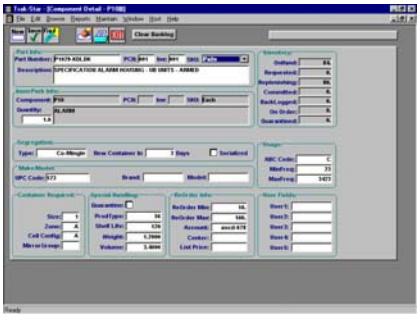
- Cycle count by zones
- ABC codes tied to customer configurable dollar values
- Frequency codes tied to customer configurable “hit” ranges
- Cycle count specific containers or locations
- Cycle count all locations for one part
- Recount errors found during counting
- Cycle count discrepant items only
- Generate cycle counts manually or may be downloaded from host system
- Reason code.

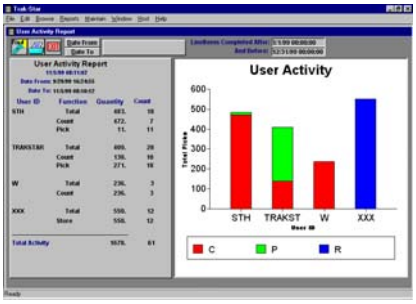


Supervisor

***Evolution*’s** supervisor functions provide for set-up, monitoring, auditing, and real-time analysis of on-going activity within the warehouse. Functions include:

- Audit trail processing
- Ergonomic storage criteria based on part 'hit' frequency
- Security Access and maintenance
- Database maintenance
- Message Center
- Quick-load utility.
- Configure system layout, configure components, and define assemblies
- Host computer uploads work results
- Host computer downloads work orders
- Manual work order generation
- Manual work order modifications
- High number of search functions with secondary sorting features
- Set FIFO by receipt date or lot number
- Split screen and printed reports with formatted data and graphs
- Ad-hoc customer configurable reports





Supervisor Reports

Standard reports include: Work Order Activity, Host Download, Component Activity, Inventory, Consolidation, Reorder, Cycle Count Error, Cycle Count Summary, Outstanding Work Order, Expected Receipt, Golden Zone, Allocation, Carousel Weight Loading, Reject, Quarantine Parts, Tracking, Tool Issue, Tool Calibration, Equipment Usage, Maintenance, and Maintenance Schedule.

So why invest in warehouse, distribution or maintenance management software?

- Operations inefficiency
- Inaccurate inventories
- Lower order fill rates
- Lost revenues
- Escalating labor costs.
- Lower customer service levels
- Increased competition

Why *Evolution* versus other solutions being considered?

Simple -- form, fit, function, and price. There are six critical reasons to consider ***Evolution***:

- Full solution suite of modular applications
- Client/Server technology to optimize system performance
- SQL database for maximum flexibility to co-exist with custom, legacy applications
- Inventory management of raw materials, component sub-assemblies, finished goods and tool crib maintenance across the distribution network
- Functionality that exceeds our competition with a significantly lower price point per user
- Turnkey responsibility for system implementation, host integration and automated controls

Radio Frequency (RF) Technology

One of the greatest benefits you can derive from ***Evolution*** is RF technology. RF allows you to perform a substantial number of processes and transactions remotely from the computer workstation. With the integrated bar code reader, you operate in real-time and increase your efficiency by no less than 18% - 25%.

Voice Data Management (VDM) Technology

EDGE's Voice Distribution Management (VDM) offers tremendous benefits within your warehouse. Achieve measurable operational gains over traditional picking solutions.

Pick-to-Light

Evolution EDGE's Pick-to-Light (PTL) module provides the ability to manage your flow rack or pallet rack pick-to-light system. With an integrated interface module and feature rich product, your warehouse pick module is fully enabled with forward pick areas that fulfill your highest demand applications.

- Full Inventory Management
- Local Adjustment
- Exception Handling
- Zero 'O' bin balance
- Cycle Count Empty Locations
- Cycle Count All Locations
- RF or VDM Rear Replenishment
- RF or VDM Front End Returns Replenishment
- PTL Front End Returns Replenishment

RFID

EDGE's RFID system manages all industry standards of RFID systems.

- *Class 1 - Short Range Passive for Slap and Ship Logistics*
- *Class 2 - Class 1 with on board memory*
- *Class 3 - Battery Assisted passive for long-range asset tracking and real-time location management.*
- *Class 4 - Active battery with active transmitter for high value logistics.*

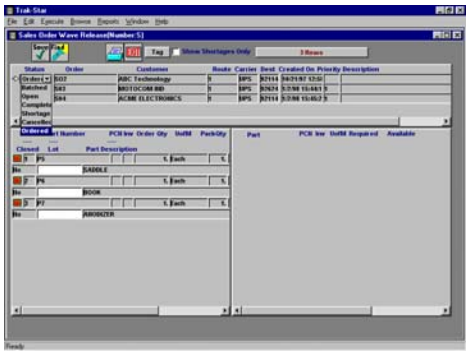
Evolution has an integrated Warehouse Control System (WCS). The internal WCS allows EDGE to offer fully functional software packages without middleware required to operate many common automation devices. These include but are not limited to:

- Conveyor Systems
- Pick to Light Systems
- Radio Frequency (RF)
- Radio Frequency Identification Technologies
- Voice Distribution Management (VDM)
- Shipping & Parcel Management
- Carousels
- Automated Guided Vehicles

Coupled with our highly functional, robust Warehouse Management System (WMS), you may streamline your warehouse operations and reduce your software maintenance costs by as much as 40%. The WCS eliminates the classic "finger pointing" by the manufacturers and liberates your Information Systems staff to focus on other strategic projects. EVOLUTION optimizes your automated Warehouse Control System (WCS). It reduces the layers of software and dependence on the equipment manufacturers.

Shipping

- Selected order processing
- Sales order 'wave release' processing
- Generate printed and/or bar coded shipping manifests
- Automatic packaging with pre-specified container sizes.
- Destination driven by predefined routes.
- LIFO truck loading by route.
- Track shipper pro #, destination, etc.
- Point to point carrier shipment rates integrated into ***Evolution***
- Single point or multiple lane consolidation
- Consolidate orders from multiple pick areas
- Dynamic consolidation of variable pick wave sizes
- Generate Advanced Shipping Notices (ASNs)
- Weigh scale integration
- Product tracking by tote ID



NextShip®

***Evolution*'s** integrated multi-carrier and small parcel and LTL management system completes the suite of products for your warehouse.

- Ship With Multiple Carriers
- Smart Rate Shopping.
- UPS OnLine® Compatible
- FedEx Compatible
- DHL Compatible
- Regional & Local Carrier Support
- Leveraging the Shipping Operation For Superior Customer Service & Profits
- Customer Service Module
- Solution Printing

100% Collaboration

We recognize the need to utilize a gateway product that seamlessly integrates Evolution to your primary enterprise system, to your customers and suppliers. Total collaboration is now available to communicate across multiple systems and communication protocols. We call this product LINKedge – your gateway to Supply Chain Execution in the new millennium. Now you can reach outside your four walls with ease, consistency and reliability.

Host Interface

Evolution provides several options for host-interfaces:

- ASCII Flat file transfers
- ODBC Interfaces
- XML Transactions
- Real-time synchronous and asynchronous
- Auto email notification

System Documentation

Evolution comes complete, making integration, implementation, and training as simple as possible. Documentation includes:

- Host Interface and Functional Requirements Document
- User's Manual
- Customer Responsibility Guide
- Implementation Handbook
- On-line Help

Service Options

EDGE is positioned to provide excellent service and support prior, during, and after the system implementation. Our “turn-key” service package includes:

- Installation & implementation
- Training in the use of ***Evolution***
- Acceptance testing
- One-year limited warranty
- Free upgrades for the warranty period
- Remote modem support
- Telephone support
- Version control
- Access to EDGE's Bulletin Board Service
- Extended warranty contracts
- Monthly Service Agreements
- Annual Audits

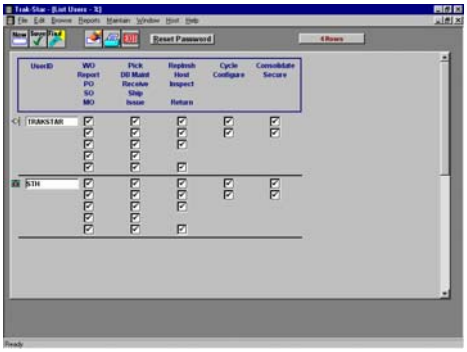
Upgrades

EDGE consistently delivers two major upgrades per year. Customers have the option to select which upgrades can be installed without compromising system performance or the migration path towards future upgrades or enhancements.

Our implementation services all support database initialization and conversion, to ease the transition from your existing system to ***Evolution***.

Security

- Access to the system is by user ID and password
- Feature access is by function and user ID
- Utilize all other security access parameters indigenous to network system utilized



Database Maintenance

- Restore database
- Backup database for archival purposes
- Purge database
- Viewing & auditing database backlogs
- Export data for use with 3rd party tools such as Microsoft Excel

Preferences & Help

Preference functions make configuration changes easy

- Preferences are accessed with an icon-driven menu for system configuration
- Typical one time set-up of system parameters

If you've used a Windows on-line help utility, then you know the power you have at your fingertips. Windows On-Line Help eliminates the need for paper documentation.

E-Warehousing.Com

For more information on all of our products and services, please visit our website.

At EDGE, we continue to design and develop our software based on customer needs, best practices and industry-specific requirements. The feedback from customers and industry focus groups are vital to our ability to deliver software solutions that provide a competitive advantage.

Evolution is a functionally complete package that is easy-to-use and customer configurable. It rapidly adapts to business process changes driven by your customers or suppliers. Your investment in Evolution will rapidly accelerate significant cost-savings, productivity gains, and customer value. Our competitive pricing model is based on offering more functionality within a standard package for substantially less cost.

With the business challenges of streamlining operations, reducing costs, improving productivity and execution performance, customers must invest in real-time inventory management solutions that contribute significant value and benefit throughout the enterprise and across the extended supply chain. A competitive EDGE provides market advantage. Invest in Evolution to ensure your competitive EDGE.

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EDGE Headquarters
1010 Calle Cordillera; Suite 101
San Clemente, CA 92673
tel (949) 369-6719
fax (949) 369-0416

West Coast Sales
PO Box 1442
Alpine, CA 91903-1442
tel (619) 445-2740
fax (619) 445-0970
sales@edgent.com