

CDC Ross Enterprise

Inventory Control the Heart of Manufacturing & Distribution

Benefits of CDC Ross Enterprise Inventory Control Module

- Improves quality controls for accuracy and consistency
- Ensures compliant workflows
- Opens visibility into inventory value
- Boosts track and control processes
- Improves efficiencies
- Eliminates redundancy
- Reduces manual inventory counts
- Streamlines inventory re-order processes

The Inventory Control module is the heart of Manufacturing & Distribution. Within Inventory Control (IC) products and locations are defined, and Inventory balances maintained. All inventory related transactions from all applications are tracked including: lot details, lot traceability, and movement history. Additionally, inventory valuation and physical inventory/cycle counting are included.

Centralized Lot Record Management

CDC Ross Enterprise maintains the lot record from inventory receipt, quality testing results, actual in process variables, warehousing, and final distribution.

Ross Enterprise Systems understands that operational material control that meets all the quality, lot, characteristic, date control is a must have for your industry. These controls include:

- Quality Control enforcing GMP compliant workflow, electronic signatures, and workflow
- Inventory in multiple independent units of measure based upon fixed weight, active units, or potency.
- Bi-directional lot tracking
- Track and control attribute/characteristic variances for each lot
- Track and control material expiration, re-test, and manufacture, and ship by/sell by dates

Enterprise and Location Product Management

CDC Ross Enterprise provides you with the highest level of flexibility and control in ensuring consistency and eliminating redundancy; enabling you to manage products across multiple locations or at a specific site. With the Inventory Control module you can define unlimited Locations/Warehouses and then for each Warehouse you can define Bin Locations for inventory tracking by location.

IC is used for production materials (raw materials, intermediate products and finished goods) and non-production MRO Items. This means that you have one common inventory control application for production materials and maintenance parts.

You can maintain traceability across all locations; track production of a product in some of the locations, and the warehousing of it in others; and measure a key product characteristic easily and consistently across the enterprise.

With CDC Ross Enterprise you can define and track enterprise and location specific attributes and controls. This allows you to maintain consistency across all locations in the enterprise, while allowing each location to define location specific information required for efficient operation.

Enterprise Controls

Enterprise Controls includes things such as part numbers and descriptions, units of measure and lot controls. The location-specific controls include such features as price and cost, make or buy, min/max and reorder point values.

Dual Inventory Units of Measure

CDC Ross Enterprise provides you with state-of-the-art best practices for tracking dual inventory and unlimited packaging units of measure. This allows you to accurately track and manage your inventory without having to add separate or manual systems to meet your requirements.

Potency Units of Measure (UOM)

Potency UOM tracking enables you to simultaneously quantify an item by two units of measure with a predefined formula. The formula can either be a simple linear conversion, or a user defined formula that has the capability to include actual lot characteristics.

Or you can quantify the strength of a chemical solution, or active bacteria in a culture. There are several different uses of potency UOM, including the following:

- Track physical and potent units of an active ingredient or potent product.
- Track both weight and volume based upon standard or actual lot specific gravity.
- Track English and Metric weight or volume based upon global conversion factors.

Packaging Units of Measure

Unlimited packaging UOM tracking lets you manage and gain visibility of an item's inventory in total and in multiple containers and package configurations. This feature is in addition to Dual Units of Measure capability. This works with potency as well as single UOM inventory items.

Additional Inventory Unit of Measure Controls

- You can define the length and precision of quantity fields, with support for up to 14 digits total, including up to six decimal places.
- Weight and volume conversion calculation for automatic weight and volume conversions relative to a base inventory unit of measure for purchasing and sales transactions.
- Formula-based conversions enable you to define and use units of measure based upon formulas. These formulas can include constants, database table and field references, lot characteristics and default product characteristics.
- Costing UOM enables you to cost inventory by either inventory unit of measure for items tracked on dual UOMs.
- Pricing units for both sales and purchase enable you to price materials by a unit of measure that can be different from the selling or purchasing unit of measure.
- You can quickly and easily view inventory quantities by all units of measure (dual inventory and packaging). Every Inventory Quantity display always includes both Units of Measure and Quantities when an item has been setup for Dual Inventory Units of Measure.

Lot Characteristics

CDC Ross Enterprise makes it easy for you to manage your inventory on the basis of variable attributes, or characteristics. It is common that characteristics may vary for each lot of the same item, and with CDC Ross Enterprise you can accurately track and manage inventory by characteristic. Whether it's purchased raw materials, produced intermediate products or finished goods, it's likely that characteristics may vary by lot.

Not only can you track inventory by characteristic, but you can also source inventory for production or shipment to customers based on actual characteristic values. Traditional inventory systems would require the creation of a new part number for each unique set of characteristic values, resulting in an infinite number of part numbers, many of which would only be used once. CDC Ross Enterprise allows you to manage your products and track the actual lot characteristics as needed to efficiently manage your business.

These product characteristics are attributes that are measurable and can vary per each lot or batch, such as pH, moisture content, potency level, or on text values like color or grade.

- For each product, you can define an unlimited number of characteristics.
- For every lot received in inventory, you can track the actual values of each characteristic.
- Record customer demand based upon customer specifications (requirements of characteristic values with predefined minimum and maximum acceptable values.)
- Predefine acceptable characteristic values by customer and automatically select and ship lots accordingly, thereby improving your level of customer service.
- Use predefined characteristics to improve control of your manufacturing processes, such as potency calculations.

Shelf Life and Expiration Dates

CDC Ross Enterprise automates the tracking of shelf life and expiration dates. It automatically assigns a lot creation date for each manufactured lot in your inventory, and calculates the expiration date based on the shelf life you defined. And in the case of a purchased receipt, you can enter the shelf life information provided by the supplier, or you can let CDC Ross Enterprise calculate the expiration date for you based upon a predefined shelf life.

- Distribution Days – the minimum number of days of shelf life that must be remaining when an order is shipped. This can be customer-specific or by product.
- You are automatically notified in advance of a product approaching the end of its shelf life based upon the number of days of advance notice you specify, thereby minimizing or eliminating expired lots.
- You are automatically notified of review/retest dates. This allows you to validate that characteristics are the same and that the remaining shelf life is still accurate.

CDC Ross Enterprise helps you with material planning by automatically notifying you if you have a material that will expire based on your current production plans. This includes both on-hand and on-order inventory.

Bi-Directional Lot Traceability (Forward & Backward)

Lot traceability and genealogy documents all of the stages that a lot of product goes through during its' life cycle – from receipt of raw material through manufacturing, transfer to another location and shipment to a customer.

With CDC Ross Enterprise you can trace lots forward, starting with the raw ingredient, or backward, from the customer product shipment. And, in addition to starting a lot trace from either end of your supply chain, you can initiate a lot trace from any point within your supply chain. This powerful forward and backward traceability capability enables you to start at any point in your process, and meet virtually any product genealogy requirements you have. All of this can be done online instantly, without having to manually check records or run reports.

- It enables you to trace in either direction, and you can trace across all locations – you can even receive in one place, manufacture in another, and package in a third location.
- It includes purchase, receiving, inspection, storage, mixing and other types of processing, testing, packaging and shipping from one warehouse to another.
- It incorporates the actual QC test results for both product and process compared to the standard.
- It captures the actual raw material usage compared to the standard for the particular batch size you are producing.

You have powerful traceability always available on-line, anytime. No additional processing or updates are required for these powerful lot trace features. This all happens automatically from recording the inventory transactions in the various manufacturing and distribution applications.

Movement History Audit Trail

As you perform transactions, CDC Ross Enterprise automatically creates a movement history record so that you can thoroughly audit every product-related transaction. This movement history, or auditability, enables you to inquire against any product transaction recorded by CDC Ross Enterprise – whether it is an inventory receipt, the placing of a purchase order, the receiving of a sales order from your customer, or any other transaction regarding your product.

- Every product related transaction automatically creates a movement history audit trail including:
 - ◊ User ID
 - ◊ System date and time of the transaction
 - ◊ Program ID used
- All movement history is available through on-line inquires and reports.
- Filters for lots, transaction dates, and transaction types can be used to narrow searches to specific subsets of information.

Inventory Balances and Basic Inventory Control

With CDC Ross Enterprise you have the ability to maintain inventory control of materials and products across multiple warehouse locations, and you can view inventory balances by location or across all locations.

- You can quickly determine the quantity and location of any material or product.
- Both on-hand and available quantities are automatically maintained.
- You have the ability by location/warehouse to determine if you want to maintain inventory balances in bin locations for detail location tracking.
- You can define storage rules and restrictions on a per-product and per-location basis.
- You can define rules for the storage of materials and products (automatic or manual put-away with either fixed or random storage).

CDC Ross Enterprise inventory control provides the unique ability to use three different product types, including Warehoused, Non-Warehoused and Non-Stock.

- Warehoused Products are the most commonly used, allowing you to define the enterprise and warehouse specific controls for each item and maintain inventory balances by warehouse and bin location.
- Non-Warehoused Products is a unique option, allowing you to define enterprise controls for an item without maintaining Inventory balances. This may be useful for repetitive purchases of non-production materials that are expensed or consumed upon receipt. This allows you to set up consistent controls, costs and maintain detailed purchase history. These can also be used for sales of service and miscellaneous charges.
- Additionally, Non-Stock Items are just that. No product master has to be setup. They are one-time purchases and sales that are defined as needed on a purchase order or a sales order.

Inventory Valuation

With CDC Ross Enterprise you have the powerful ability to value inventory by various methods. You have the option to choose between standard cost, weighted average cost, actual lot cost, last in first out (LIFO) or first in first out (FIFO) cost methods. No matter what method you choose for inventory valuation, you always have the visibility of standard cost, weighted average cost, actual lot cost and last cost.

- No matter how you choose to value your inventory, you still have full visibility of your actual costs for each transaction.
- The inventory valuation is automatic with every inventory related transaction, with weighted average cost and last cost being updated automatically with every transaction.
- Inventory valuation is user selected by location/warehouse. If you have different businesses with different locations, you have the ability to have different inventory valuation methods, if needed. Or you may want to value production materials by standard cost and maintenance parts by weighted average cost.
- Perpetual inventory quantities and General Ledger inventory assets are always synchronized because each inventory related transaction updates inventory balances and creates the appropriate journal entries for posting to the General Ledger.

Inventory Counting

Cycle counting provides you with a highly efficient way to ensure the accuracy of your inventory. You can even minimize or eliminate the need to do a full physical inventory on a month-to-month basis and also increase your inventory accuracy; yet have the capability for full physical inventory for year-end audits.

Once you input instructions as to the number of items to count (based on product number of ABC code or bin location) and how often to count, you can choose to receive a random sampling count daily, or at any other frequency. And when you enter the count, CDC Ross Enterprise compares the actual count with the maintained inventory balance, and provide you with an exceptions report. If you accept the exceptions (the actual count), the inventory count will be automatically updated.

- CDC Ross Enterprise will not require you to stop all transactions to perform cycle counts. It adjusts for the ongoing transactions while the count is occurring and after you have counted but not yet input the results – you simply input when you took the cycle count and inventory is automatically adjusted retroactively.
- The inventory counting features provide the ability to perform full physical inventory, perform cycle counts and spot checks as required.
- Full physical inventory can be setup by location/warehouse with the optional ability to select by warehouse zone(s) and/or bin locations. Physical inventory includes all items and lots in the selected warehouse, zones, and bin locations.
- Cycle Counts can also be established by warehouse and optionally warehouse zone. Based upon ABC inventory classification you can specify the frequency of cycle counting. The system will automatically select all items and lots eligible for cycle counting and display the count by ABC classification. Optionally, you can reduce the quantity to cycle count by ABC classification.
- Spot checks are for a specific item with optional selection by warehouse zone and/or bin location. This is when an inventory difference has been encountered and inventory needs to be reconciled, or random checks are desired.
- After inventory counts have been entered, differences are calculated by the system and management reports can be generated. When satisfied that all counts are accurate, the appropriate inventory adjustments can be made by the system.

Centralized Quality

The quality control and quarantine function provides for a centralized control for all applications. Based upon item and transaction type, you can specify the inventory status of QOH (Quantity on Hand), QC (Quality Control) or QR (Quarantine). Every transaction that places inventory in either QC or QR status has a unique centralized quality tracking number.

- Transactions including purchase order receipts, production completions, customer returns, and miscellaneous inventory transactions changing the inventory status to QC or QR are included in the centralized quality area.
- Inquiries and reports provide the status and quantity of all lots in QC and QR status with the ability to historically view all lots that have previously been in centralized quality.

Once the physical disposition has been determined, the lot can be moved to QOH, Returned to Supplier for PO Receipt, or Disposed of by removing from Inventory. Optionally, lots in QC can be transferred to QR and lots in QR can be transferred to QC.

- Either Complete Lots or Partial Lots can be transferred to/from a QC or QR status.

In addition to the system-delivered Inventory Statuses, an unlimited number of additional user defined Status Codes can be created.

Inventory Re-Ordering

The Inventory Control application also supports the ability to perform inventory replenishment based upon the actual inventory quantity and min/max inventory values by Item by location/warehouse.

- Minimum, maximum and reorder quantity can be user defined by item by warehouse, or the system can analyze past usage history and calculate these values based upon standard EOQ (Economic Order Quantity) formulas.
- The inventory reordering calculation considers the quantity available (Quantity on Hand less any reservations, allocations, and unconfirmed pick lists), outstanding purchase orders and the minimum quantity value. If quantity available plus outstanding PO quantity is less than the minimum quantity, a reorder is suggested by the system. Review and maintain the suggested reorders, and optionally convert into purchase requisitions.

Mobile Data Collection

Advanced web services in CDC Ross Enterprise allow manufacturers to employ third party mobile handheld and automated data collection devices, such as RFID readers and fixed barcode scanner stations, in their inventory operations. Whether in the main plant, at a remote or 3rd party facility, or on the road, users have secure access to Ross Enterprise information via WAN, VPN or Secure SSL connection over the internet.

CDC Ross Enterprise Data Collection extends ERP transactions to mobile handheld devices giving users real-time and accurate visibility into their inventory operations. By accelerating the data capture process via barcode scanners, Ross ERP Data Collection increases user productivity. Through system generated prompting, inventory accuracy is improved and data errors are reduced. And with real-time, accurate visibility into inventory and production data, managers can make better informed decisions regarding current and planned stock levels, and labor and equipment utilization across the enterprise.

Ross ERP Data Collection supports a variety of user transactions, including:

- Shipment Amend
- Shipment Confirmation
- Goods Received Note Line Load
- Goods Received Note Confirm/Put away
- Multi-Line Transactions
- Stock Conversion
- Lot Maintenance
- Cycle Count Maintenance
- One Stage Bin Transfer
- Two Stage Warehouse Transfer
- Manufacturing Direct Material Issue
- Manufacturing Material Return
- Machine Time Entry/Posting
- Labor Entry/Posting
- Manufacturing Stage Count Process
- Quality Status Transfer
- QC Test Results

About CDC Software

CDC Software, The Customer-Driven Company™, is a provider of enterprise software applications designed to help organizations deliver a superior customer experience while increasing efficiencies and profitability. CDC Software's product suite includes: CDC Factory (manufacturing operations management), Ross Enterprise (enterprise resource planning) and SCP (supply chain planning), CDC Supply Chain (supply chain management, warehouse management and order management), e-MPOWER (discrete manufacturing) Pivotal CRM and Saratoga CRM (customer relationship management), CDC MarketFirst (marketing automation and lead management), Respond (customer complaint and feedback management), c360 CRM add-on products, industry solutions and development tools for the Microsoft Dynamics CRM platform, Platinum HRM (human resources), and business analytics solutions. These industry-specific solutions are used by customers worldwide within the manufacturing, industries.

The company completes its offerings with a full continuum of services that span the life cycle of technology and software applications, including implementation, project consulting, outsourced business services, application management and offshore development. For more information, please visit www.cdcssoftware.com.

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