

Inventory Management

Feature List

Warehouse & location stock control for Indition Commerce · Inventory module v1.2.1

What this is

A scannable, grouped list of what the Inventory module does. It adds warehouse- and location-based stock control on top of Shop — knowing exactly what you have, where it is, what it cost, and what is on its way. Adoption is per-SKU: turning the module on does not force every product into location-based tracking, so you can roll it out gradually.

Setup & Governance

- **Module enable switch** — turn the warehouse/location engine on or off; while off, the store keeps its legacy stock behaviour and the Inventory screens stay hidden.
- **Store scope** — choose which stores use Inventory-managed stock, and on first enable create one shared warehouse for all stores or a separate warehouse per store.
- **Product-type scope** — limit which product types are brought under inventory tracking.
- **Menu safety gating** — until the module is enabled and its data tables exist, the admin menu collapses to Settings only, so first-time setup finishes safely.
- **Allocation method** — reserve from the store's default bin (`default_bin`) or oldest stock first (`fifo`).
- **Negative-stock policy** — block anything that would drive stock below zero (safer) or allow oversells/backorders globally.

- **Serialization enable rule** — control when a SKU may switch to serial tracking: require zero stock, allow with serial import, or always allow.
- **Purchase-order approval governance** — require approval, and assign approvers by admin user, admin role, or both.
- **Vendor payment terms, PO disclaimer, transfer carriers** — centrally maintained lists and toggles reused across the module.
- **Pre-Cuts & fractional quantities** — optional features enabled here, with category restriction and defined fractional sizes.

Warehouses & Locations

- **Warehouses** — buildings/sites that hold stock, with code, name, description, delivery address, phone, primary contacts and PO delivery instructions; assigned to one or more stores.
- **Locations (bins/shelves)** — the level at which stock is actually counted; code, name, size, max items and physical location.
- **Default & default-receive locations** — one of each per warehouse; the default bin drives allocation, the default-receive location is where PO receipts land.
- **Per-store location eligibility** — a location either inherits its warehouse's store assignments or defines its own subset (never exceeding the warehouse's stores).
- **Barcode & QR labels** — printable from the warehouse and location index screens.

Stock Quantity Model

- **Location-level balances** — on-hand (`qty_on_hand`) and reserved (`qty_reserved`) held per SKU-and-location in `_shop_inventory_item` ; available is on-hand minus reserved.
- **SubProduct rollup** — location balances roll back into legacy SubProduct totals (`stock_total` / `stock_reserved`) for compatibility; the sentinel value `999999999` marks an untracked SKU.
- **Product in-stock flag** — the parent product's `in_stock` flag is recomputed from the sum of its SKUs' available stock.
- **Per-store availability cache** — a denormalised `_shop_inventory_store_availability` row per (SKU, store) holds on-hand, reserved, available and in-stock, so storefront listing and PDP read fulfillable stock in one query; absence of a row means zero available for that store.

- **Reserve / release** — increments/decrements reserved without moving on-hand (used by order sourcing), capped at available with a returned shortfall.

Per-Store Fulfillment

- **Store-eligible locations only** — a store's orders are fulfilled from active locations eligible for that store (inherited from the warehouse's stores, or the location's own store subset).
- **Store-scoped availability** — availability shown to a shopper for a store equals the summed available stock across that store's eligible locations, so "available" always equals "fulfillable".
- **Bulk & single availability lookups** — per-store and per-product stock reads for storefront listing, product pages and add-to-cart checks.
- **Availability cache rebuild** — the per-store cache can be rebuilt globally or per warehouse when eligibility rules change.

Cost Tracking (FIFO)

- **Cost layers** — each received batch records the unit cost paid in `_shop_inventory_cost_layer` (`qty_received` , `qty_remaining` , `unit_cost`).
- **FIFO drawdown** — as stock is consumed, cost is drawn from the oldest layers first, keeping cost-of-goods and inventory valuation accurate.
- **Layer sources** — purchase-order receipts, manual single-SKU receipts, manual purchase-cost adjustments, and transfer cost layers.
- **Last & average cost** — the last purchase cost and an average cost from remaining layers are tracked per SKU; opening layers can be backfilled from latest purchase-cost data.
- **Stock-movement ledger** — every movement (receipt, reserve, unreserve, shipment, move-in/out, return, adjustment, pre-cut) is written to `_shop_inventory_transaction` for a full audit trail.

Stock Operations

- **Receive** — add stock into a location outside a PO; creates a cost layer, serials for serialized SKUs, and refreshes totals and stock status.
- **Adjust** — correct a quantity up or down with a reason (adjustment or return) and note; serialized positives need a serial per added unit, negatives remove the oldest serials.

- **Move** — shift stock between locations (even across warehouses) without creating a transfer document.
- **Order-driven stock movement** — records an order sale or refund at an explicit bin (sale = debit, reason shipment; refund = credit, reason return) with order context; used by POS and fulfillment. It runs the full engine (row lock, negative-stock guard, ledger, cost layers, totals, availability cache) but lets the order caller own serial status.
- **Bulk actions** — apply one adjustment or a shared move destination to many selected stock rows (bulk positive adjustments blocked for serialized SKUs).
- **Oversell handling** — the negative-stock guard blocks drops below zero unless negative stock is allowed globally; POS adds its own block-oversell and inventory-override behaviour on top.

Purchasing & Receiving

- **Purchase orders** — build from scratch, a copied PO, a vendor SKU picker, CSV/XLS import, a previous PO, or planning recommendations.
- **PO lifecycle** — draft, awaiting approval, approved, ordered, partially received, received, cancelled — with stable numbering from a dedicated numbering table.
- **Receiving** — partial and line-level receipts, bulk or per-line locations, serial capture; posting a receipt increases on-hand, records a cost layer, and advances the PO.
- **Receipts** — full receipt history, receipt detail, receiving worksheet with barcodes, and Excel/PDF export.

Transfers, Counts & Serials

- **Transfers** — tracked stock movement between locations/warehouses with draft, in-transit, received, cancelled and reversed states; shipping consumes source cost layers and receiving recreates them at the destination.
- **Cycle counts** — scoped physical audits (all items, categories, random sample, zero-quantity, search, or not-counted-recently) with auto-saving progressive entry, barcode scanning, found items, and a mobile-friendly counting screen.
- **Blind counting** — counters never see the expected quantity (per count or by default), the industry-standard guard against counter bias.
- **Variance control** — quantity/percent/dollar tolerances route counts to a review queue; approvers post, skip lines, or request per-line recounts (first count preserved); every variance valued in dollars (shortages at actual FIFO layer costs).

- **Count program automation** — ABC classification by annual usage value plus recurring count schedules (e.g. A monthly, B quarterly, C yearly) generated by a daily job, with assignees, email notifications, and a due/overdue dashboard.
- **Serial reconciliation** — scan the serials physically present; missing units adjust out by serial and newly found serials adjust in.
- **Count accounting** — optional automatic QuickBooks journal entry per completed count (Inventory Shrinkage vs Inventory Asset, idempotent doc numbers).
- **Count reporting** — accuracy, coverage, SKU variance history, counter performance, and a monthly trend chart of accuracy and shrinkage dollars.
- **Serial tracking** — per-unit serial numbers with statuses in stock, in transit, sold, returned, adjusted out; serial lookup by number, SKU, status or location, plus history and sold-serial reports.
- **Alternate barcodes** — extra barcodes that all resolve to the same SKU when scanned.

Reporting & Pre-Cuts

- **Reports** — Inventory Valuation, Value by Vendor, Stock, Planning, Transaction Ledger, Serial Aging, Serial History, Sold Serial Lookup, and SKUs Without Tracking — all filterable with Excel/PDF export.
- **Planning values** — per-location reorder point, min, max, lead time and safety stock that drive reorder recommendations.
- **Pre-Cuts (optional)** — convert a bulk source SKU into smaller sellable target SKUs in a batch, with cost allocation, labels and reusable templates.