

INVENTORY MANAGEMENT SYSTEM

HYDRA INV

INVENTORY SUITE

User Manual

A complete guide to stock control, procurement, asset management and the Hydra system integration.

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1 Introduction

Hydra INV is a professional inventory management application for hospitality and hotel operations. On a single, clear interface it tracks the entire stock of the bar, kitchen and storeroom — from goods-in to consumption, from stocktake to procurement.

1.1 What is Hydra INV?

Hydra INV is a **desktop application** (Windows/macOS/Linux) that stores your data **locally**, on your own machine — no cloud dependency. It focuses on precise, batch-level (FEFO) stock tracking and works closely with the rest of the Hydra suite: the POS till, the PMS hotel system, and the Hydra Admin control centre.

Hydra INV is **purely an inventory-tracking system**: it is not a cash register or invoicing tool. Sales are handled by the POS and minibar charges by the PMS, and these automatically draw down the appropriate ingredients from Hydra INV's stock. As a result, stock always reflects real consumption without manual entry.

NOTE

Hydra INV is fully functional on its own — POS/PMS integration is optional. Without integration you can record consumption using the **Issue** (stock issue), **Waste** and **Stocktake** functions.

1.2 Key features

- **Items** — batch-level stock, unit, supplier, price, barcode.
- **Goods receipt** — batches by expiry and purchase price (FEFO).
- **Issue / withdrawal** — with an issue voucher and reason.
- **Stocktake** — record actual quantity, automatic correction.
- **Waste** — with reason and cost value.
- **Recipes** — POS product → ingredient composition.
- **Suppliers** and **Orders** — by e-mail or PDF.
- **Goods receipt** — order-linked, with partial deliveries.
- **Locations** — stock and assets by site.
- **Assets** — by-room register, service log, QR.
- **Depreciation** — straight-line amortisation.
- **Lending** — who took what, due when.
- **Barcode scanner** — USB, camera (HT-TPS) and mobile.
- **Alerts** — low and critical stock, expiry.
- **Mobile PWA** — stock from anywhere over secure HTTPS.
- **Backup/restore** — full backup and automatic safety copies.

1.3 Architecture: one site = one program

Each **business/site runs its own Hydra INV installation**, with its own item catalogue and recipes. This matters because every unit has a different range and different ingredients, and POS/storno traffic runs locally, on the same network.

The **“Locations”** inside the program are not separate companies but sub-locations within one unit (e.g. Bar, Kitchen, Central store). A combined overview of several separate businesses is provided by the **mobile PWA portfolio** (see 9.2), which reads from snapshots uploaded to Hydra Admin — view-only.

TIP

If you operate 2-3 separate units, install Hydra INV on each one, and use the PWA portfolio for management oversight. That way sales/storno always run on the local network with no latency.

2 Getting started

2.1 Launch and activation

- 1 Start the Hydra INV application. On first launch it creates the local data store and starts the built-in integration server.
- 2 Open **Settings > Admin** and enter the **License key**, the **Hotel ID** and the **Admin server URL** (provided by Hydra Admin).
- 3 Save the settings. The program validates the license with Hydra Admin. Without a valid license the interface stays locked.

NOTE

License validation runs at startup and periodically. During a temporary network outage the program allows a grace period, so work does not stop immediately.

2.2 Initial configuration

After activation, set the operating basics on the **Settings > General** tab:

- **Server port** — the port of the integration API (default: 3002). The POS and PMS reach Hydra INV on this port.
- **API key** — the built-in server's authentication key. If left empty, the program generates one automatically. The same key must be configured on the POS/PMS side.
- **VAT rate (%)** — default VAT for reports.
- **PMS server URL / API key** — for partner synchronisation with the hotel system.

If you want to e-mail orders to suppliers, also complete the **Settings > SMTP** tab (see 10.2).

2.3 Adding your first items

Stock is built from **items**. The fastest way to get going:

- 1 Go to **Stock > Items** and click **+ New item**.
- 2 Enter the name, the unit (e.g. pcs, l, kg), the category and — if any — the barcode and supplier.
- 3 Set a **minimum stock level** so the program warns you automatically when the item runs low.
- 4 After saving, **receive** the opening stock (see 5.2), entering the quantity, purchase price and — for perishables — the expiry date.

TIP

For larger catalogues, use the **CSV import** on the Items page: download the template, fill it in a spreadsheet, then import. The program skips and flags any invalid rows.

3 The interface

The window has three main parts: the left navigation, the top header and the central work area.

3.1 Layout

Sidebar (left)

The modules in three groups: **Stock**, **Procurement** and **Other**. Click a group header to collapse or expand it. The **Overview** (dashboard) sits at the very top.

Header (top)

The program name and version, the search box, and the **server status indicator** (green dot = the integration server is running, and shows the port).

Work area (centre)

The content of the current module: lists, forms, reports. Each page shows a title and a short description at the top.

3.2 Navigation and groups

Structure of the left-hand menu

Group	Module	Purpose
—	Overview	Stock summary and quick status report
Stock	Items	Stock register, goods receipt, issue
	Recipes	POS product → ingredient composition
	Movement log	Receipts, sales, stornos, corrections
	Alerts	Low and critical stock levels
	Report	Current stock picture, exportable
Procurement	Suppliers	Supplier database, PMS sync
	Orders	Purchase ordering and goods receipt
Other	Locations	Stock and assets by site
	Assets	Fixed assets, service log, QR
	Depreciation	Straight-line amortisation
	Lending	Asset and item lending

3.3 Search and filtering

Most lists have a search box and filters (e.g. category, location, status). Search is accent- and case-insensitive, so “kave” will also find “Kávė”. The export buttons (**Excel/CSV**) save the current, filtered list at any time.

4 Core concepts

A few concepts that recur throughout the program.

Item

A registered article or ingredient (e.g. “Coffee 1 kg”, “Coca-Cola 0.33 l”). It has its own unit, stock, price and — optionally — barcode.

Stock

The quantity currently available of an item, in the item's unit.

Batch

A sub-quantity from a single goods receipt, with its own expiry and purchase price. An item can have several batches.

FEFO

First Expired, First Out — on consumption, the earliest-expiring batch is always reduced first. The program handles this automatically, ensuring use before expiry.

Recipe

The ingredient composition of a POS product (e.g. “Cappuccino”). On sale, the relevant items' stock is drawn down according to the recipe.

Location

A sub-location within one unit (e.g. Bar, Kitchen, Store). Items and assets can be assigned to it.

Movement

An entry in the Movement log for every stock change: goods receipt, sale, storno, issue, waste, correction, stocktake.

5 Managing stock

5.1 Dashboard (overview)

The **Overview** page shows the state of the operation at a glance: a summary of items and total stock value, critical and low-level items, upcoming expiries, plus recent movements and a consumption summary. From here you can jump quickly to the relevant module.

5.2 Items — create, receive, issue

Stock > Items is the heart of the program. Here you create and maintain the item catalogue, and from here you start the most important stock operations.

Creating and editing an item

Use the **+ New item** button to open the form. You can set the name, unit, category, supplier, purchase price, barcode, minimum and critical stock, and the location. Existing items are edited with the **pencil** icon on the row.

Goods receipt (receiving stock)

When goods arrive, receive them so that both stock and value stay accurate:

- 1 On the item's row, choose the **Receive** action.
- 2 Enter the **quantity**, the **purchase price** and — for perishables — the **expiry date**.
- 3 Save: the program creates a new batch and increases the stock. The receipt is recorded in the Movement log.

NOTE

If the incoming goods belong to an **order**, start **Goods receipt** in the Orders module (see 6.2) — that way the ordered and the actually delivered quantity are reconciled, and partial deliveries can be handled.

Issue / stock withdrawal

The **Issue** action (in the Items page toolbar) records a stock withdrawal — e.g. goods given to the kitchen, an event, or another department. You can enter the reason, the recipient and a note; the program produces an issue voucher and the movement is logged. This is the main manual consumption method without POS integration.

Minibar sync

Minibar sync reconciles the stock of minibar items with the hotel system. PMS minibar charges also draw down stock automatically (see 9.1); the manual sync complements this.

5.3 Stocktake, waste and minimum levels

Stocktake

With a stocktake you record the **actual** quantity, and the program computes the difference from the recorded figure, then adjusts stock with a correction movement. Several items can be counted at once; every correction is traceable in the Movement log.

Waste

Waste is for writing off spoiled, broken or expired goods. You enter the reason and quantity; the program also records the **cost value**, so the loss can be reported. Expired batches are also flagged under Alerts and can be written off with one click.

Minimum and critical stock

Each item can have a **minimum** and a **critical** threshold. If stock falls below them, the item appears under **Alerts** and is included in the ordering suggestion. The **Min. stock** button lets you set this for several items at once.

5.4 Recipes

Stock > Recipes links the **products** sold by the POS to the **ingredients** in Hydra INV. A recipe lists how much of which items is needed for one unit of a product (e.g. “Cappuccino” = 7 g coffee + 1.2 dl milk).

- 1 Select the POS product (or create its identifier).
- 2 Add the ingredient items and the consumption quantity per unit.
- 3 Save. From now on, when the product is sold (POS) the program draws down the ingredients per the recipe — storno writes them back.

TIP

Direct-item sales are also possible without a recipe: if a POS product maps one-to-one to an item (e.g. a bottled soft drink), the program draws down that item directly.

5.5 Movement log, alerts, report

Movement log

A chronological, searchable log of every stock change: goods receipt, sale, storno, issue, waste, correction, stocktake, location transfer. It can be filtered by type and period, and exported.

Alerts

The collection point for low and critical stock items, and expiring/expired batches. From here you can order or write off directly.

Report

The current stock picture — quantity and value per item and in total. Printable and exportable to Excel/CSV.

6 Procurement

6.1 Suppliers

On the **Procurement > Suppliers** page you maintain supplier details (name, contact, e-mail, phone). Based on the supplier assigned to each item, the program can group an ordering suggestion. The **PMS sync** imports partners from the hotel system, so you don't have to enter them twice.

6.2 Orders and goods receipt

Creating and sending an order

- 1 On the **Procurement > Orders** page, click **+ New order** and select the supplier.
- 2 Add the items and quantities. The program suggests items that have fallen below their minimum stock.
- 3 Send the order by **e-mail** (SMTP required, see 10.2) or save it as a **PDF** and forward it manually.

Goods receipt and partial delivery

When the ordered goods arrive, start **Goods receipt** from the order's row. You can enter the actually delivered quantity per line — if less arrives, the order stays open as **partially fulfilled**, and the remainder can be received with a later delivery.

- 1 Open the order and choose the **Goods receipt** action.
- 2 Enter the delivered quantity per line (the remaining quantity is shown by default).
- 3 Confirm: the program receives each line (stock + batch/expiry), records the movements, and updates the order's status.

WARNING

Goods receipt counts as a receipt: it actually increases stock. Record only the quantity that genuinely arrived, so partial-delivery tracking stays accurate.

7 Assets and locations

7.1 Locations

On the **Other > Locations** page you create sub-locations (e.g. Bar, Kitchen, Central store) and assign items and assets to them. The location is the **primary place**: it tells you where an asset or stock is.

- **Create / edit** — set the name and description.
- **Assign** — unassigned assets can be linked to a location with one click.
- **Transfer** — move assets and items from one location to another, with a logged movement.

7.2 Assets

Other > Assets is for keeping a register of fixed assets (fridge, TV, furniture, kitchen equipment, etc.). For each asset you can record the type, manufacturer, serial number, purchase price, warranty, service life and condition.

Location model: site + room

An asset's place is given by the **location** (primary place) and an optional **room/position** text (e.g. "Kitchen · shelf 3"). These are two separate concepts: a location transfer does not overwrite the room. For older assets without a location, the entered place remains the primary label — fully backward compatible.

Operations

Move

Place the asset at another location and/or change the room, with a logged movement.

Condition

OK / Awaiting repair / Under repair / Written off — the change is logged.

Service log

Maintenance and repair entries, with cost; the total repair cost is shown as a sum.

QR code

A printable QR code can be generated for the asset (with its ID and location) for quick stocktaking.

Clone

Quickly add many identical assets (e.g. 20 matching chairs) by copying; the serial number is left blank.

WARNING

The program will not let you delete an asset that is currently on loan (checked out) — return the loan first. This prevents an "orphaned" loan.

7.3 Depreciation and lending

The **Depreciation** page computes straight-line amortisation of fixed assets based on purchase price and service life: annual depreciation, write-off percentage and net book value — exportable.

The **Lending** page keeps track of who took out a given asset or item and when it is due back. Overdue returns are highlighted. When an item is lent out its stock decreases, and it is written back on return.

8 Barcode scanner

Hydra INV supports barcode work in three ways.

USB / handheld scanner

Most USB barcode readers act as a keyboard: the program receives the code automatically. During goods receipt and stocktake, the scanned code recalls the matching item.

Camera scanner (HTTPS)

The program serves a secure HTTPS page that you open with a phone/tablet camera to read barcodes. HTTPS is required because browsers only allow camera access over a secure connection. While scanning, the camera pauses whenever the quantity-entry dialog is open, so a stray code cannot disrupt the entry.

Mobile scanner

The same camera mode, optimised for mobile — for hand stocktaking between the shelves.

TIP

When you scan a new barcode that is not yet in the system, the program offers to add a **new item** with that code — so the catalogue can grow as you work.

9 Integrations

Hydra INV is the inventory engine of the Hydra suite. The POS and PMS provide consumption; Hydra Admin provides licensing and oversight.

9.1 POS, PMS and Hydra Admin

POS (till)

On a sale, the POS notifies Hydra INV, which draws down the ingredients according to the **recipe** (or a direct item). **Storno** writes them back, and the **daily close** draws down the turnover in aggregate. The program de-duplicates orders so there is no double deduction.

PMS (hotel system)

Minibar items charged to a guest's room automatically reduce Hydra INV's stock via the PMS; storno also writes back here. Supplier partners can be synced from the PMS.

Hydra Admin

The central oversight: issuing and validating licenses, and receiving stock snapshots for the mobile PWA.

NOTE

The key to integration is matching the **API key** and **port** on the Hydra INV and POS/PMS sides. By default the built-in server accepts only authenticated requests; the exceptions are the camera scanner page and the health endpoint.

9.2 Mobile PWA — stock from anywhere

Hydra INV offers a mobile **PWA** (installable web app), served by Hydra Admin over secure HTTPS. With it, a manager can check stock **from anywhere** — even a portfolio of several sites, in a single view, read-only. The PWA gives a full-screen, native-app experience without the browser's chrome.

- Install: open the PWA address on the phone, then “Add to Home Screen”.
- Hydra INV periodically uploads a stock **snapshot** to Admin; the PWA reads from these.
- With several units, the portfolio view shows the locations in a combined way.

9.3 API reference

The main endpoints of the built-in integration server (the POS/PMS call these; manual use is not required). Every request carries the configured **API key**.

Hydra INV integration endpoints (default port: 3002)

Method	Endpoint	Function
GET	/api/health	Health check (no authentication)
GET	/api/inventory	Retrieve the full current stock
GET	/api/low-stock	List of low-stock items
POST	/api/sale	POS sale — recipe-based deduction
POST	/api/storno	Reverse a sale — write stock back
POST	/api/minibar-charge	Deduct a PMS minibar charge
POST	/api/pos-close	POS daily close — aggregate deduction
GET	/scanner	Camera scanner page (HTTPS)
POST	/api/scanner-code	Receive a scanned code

10 Settings

Settings consist of four tabs.

Tab	Setting	Description
General	Server port	Port of the integration API (default: 3002)
	API key	The built-in server's authentication key (empty = automatic)
	VAT rate (%)	Default VAT for reports
	PMS URL / API key	Partner sync with the hotel system
SMTP	SMTP server + port	Outgoing mail server for orders
	Email + password	Authentication for sending mail
	From	The sender address of order e-mails
Admin	License key	Activates the program
	Hotel ID / name	Identifies the unit in Hydra Admin
	Admin server URL	Address of the control centre
Backup	Backup / restore	Full backup and restore (see 11)

WARNING

After changing the **API key** or **port**, update the values on the POS/PMS side as well, otherwise the integration will stop.

11 Backup and restore

Hydra INV stores all data locally and applies multiple layers of protection against data loss.

Automatic backup

The program regularly takes a snapshot of the data file (rotated daily backups), and on every write performs an atomic, fsync-ed save — so data is not corrupted even by a power cut.

Full backup (export)

On the **Settings > Backup** tab you can save the entire data store (items, movements, assets, settings) to a single file. Keep it in a safe place.

Restore (import)

From the same place you can load a previous full backup. The program checks that it is a genuine Hydra INV backup, and asks for confirmation, because the operation **overwrites** the current data.

TIP

Make a regular **full backup** to external media too (e.g. monthly or after a major stocktake). Automatic backup protects on the local machine; the external copy protects against hardware failure.

12 Troubleshooting and FAQ

The interface is locked / “license required”

On the **Settings** > **Admin** tab, check the license key, the Hotel ID and the Admin URL, as well as the internet connection. With the correct details, the program unlocks the interface at the next check.

The POS/PMS does not draw down stock

- Do the **API key** and **port** match on both sides?
- Is the integration server running? (A green dot in the header indicates it.)
- Is the Hydra INV machine reachable from the POS/PMS over the network (firewall)?
- Is there a **recipe** for the sold product, or a direct-item mapping?

The camera does not start in the scanner

The browser only allows the camera over **HTTPS**. Hydra INV uses a self-signed certificate for the scanner page — accept the browser warning, then allow the camera. Try another browser if it does not start.

The order e-mail does not go out

Check the **Settings** > **SMTP** details (server, port, user, password, sender). Many providers require a separate “app password”. If e-mail cannot be resolved, save the order as a **PDF** and send it manually.

Discrepancy at stocktake

Record the actual quantity with the **Stocktake** function — the program adjusts stock with a correction movement, and the difference stays traceable in the Movement log.

13 Glossary

API key

A secret authentication key that protects Hydra INV's built-in server from unauthorised requests.

Batch

A sub-quantity from one goods receipt with its own expiry and price.

Goods receipt

Recording the arrival of goods; increases stock and creates a batch. (Order-linked when reconciled to a purchase order.)

FEFO

First Expired, First Out — the earliest-expiring batch is consumed first.

Issue / withdrawal

Manual consumption recording with an issue voucher.

Movement

A log entry for any stock change.

POS

Point of Sale — the till / sales system.

PMS

Property Management System — the hotel system (minibar, partners).

PWA

Progressive Web App — an installable mobile web app for viewing stock remotely.

Recipe

The ingredient composition of a POS product.

Waste

Write-off of spoiled/broken/expired goods with a cost value.

Storno

Reversal of a sale; writes stock back.

Location

A sub-location within one unit (Bar, Kitchen, Store).

