Zeyto Handbook

Every module, how it works, with workflow graphs, structures, screenshots and real worked examples.

Zeyto ERP 0.1.65 · Zeyto Garage Pro 0.9.8 · Zeyto Sharp 0.2.0
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What Zeyto is and how it fits together

Read this chapter first. After it you will know what Zeyto is made of, where your data lives, how a PC, a phone or a person outside the shop reaches it, the one pattern every screen follows, and what a normal day in the shop looks like inside the sidebar.

1. What Zeyto is: products, packs and licences

Zeyto is business software for small and medium companies in the UAE and the Gulf. It keeps sales, purchases, stock, accounts, VAT, a point of sale, payroll and reports in one system, on a computer in your own shop. Daily work, printing and backups do not need the internet.

One program, one licence

Zeyto is one program. What you can use is decided by a signed licence file, not by a different version of the software. The licence lists the modules you bought (features) and the limits you get (companies, branches, users, devices, terminals). The program asks the licence before it shows a module or accepts a new user. A module that is not in your licence shows an "Add-on" tag and an upgrade sheet instead of the screen.

KIND	NAMES IN THE LICENCE
Features	Sales, Purchase, Inventory, Accounting, Vat, Pos, Barcode, MultiUser, Mobile, Web, PrintDesigner, LabelDesigner, ReportsAdv, Audit, Api, MultiBranch, BackupCloud, Variants, SerialImei, Payroll
Industry packs	PackTrading, PackRetail, PackDistribution (and PackGarage, see the note below)
Limits	Companies, Branches, DesktopUsers, WebUsers, MobileUsers, Devices, PosTerminals (and Projects, Sites for the contracting product)

Zeyto is sold in price bundles called Solo, Business and Pro. These are bundles of the same features and limits. They are not different programs.

The three products

Zeyto ERP (licence code ZEYTO-BUSINESS)

This is the product this handbook describes. Sales, purchase, inventory, accounting, VAT, POS, payroll, reports. It is built from the repository `zeyto-starter`.

Zeyto Garage Pro (ZEYTO-GARAGE)

A separate product for workshops, forked from the ERP at version 0.1.21. It adds a job card document (document type JC) and its own garage tables. It has its own repository, its own release numbers (0.9.x) and its own demo.

Zeyto Sharp (ZEYTO-SHARP)

A separate construction and contracting ERP, cloned from the ERP at 0.1.47. It adds projects, bill of quantities and work breakdown, budgets, progress billing with retention, subcontracts, work in progress and site apps. It is not released yet.

RULE

The products do not mix. The licence server and the relay refuse a pairing between different products and answer PRODUCT_MISMATCH. A Garage licence cannot activate an ERP install, and the other way round.

Not verified in code: the ERP licence feature list still contains PackGarage, although Garage is now a separate product (see ADR-002). Treat PackGarage as a leftover name until the owner confirms.

What is built into every ERP install

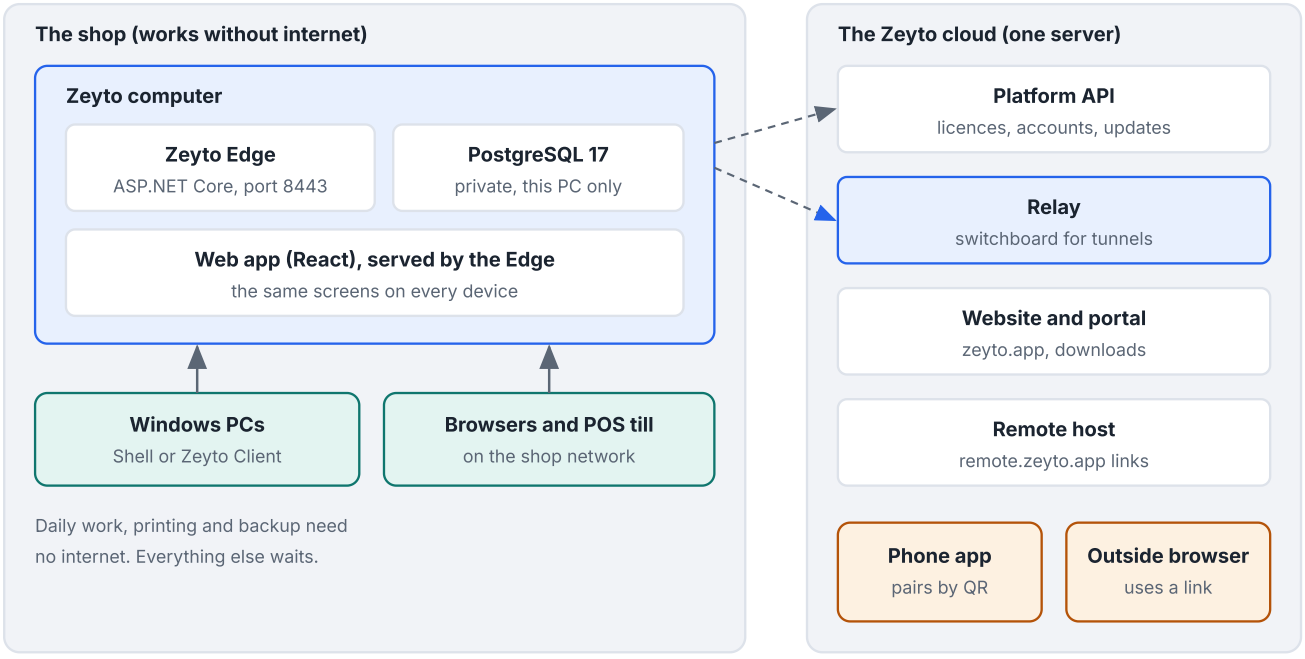
Everything in the sidebar is the same program. Whether a group shows depends on the licence feature that guards it, and on a permission named after the group, such as sales.view. Without the permission you see "Access Restricted", or the action is refused with a message that names the permission.

> Source: `src/Zeyto.Contracts/Entitlements.cs`, `docs/blueprint.md` (sections 1, 5, 6.13), `docs/adr/ADR-002-industry-packs.md`, `docs/operations/sharp-product-cloud-change.md`, `src/Zeyto.Web/src/screens/nav.ts`

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2. How it is built and where it runs

A normal shop has one Zeyto computer. It runs two Windows services: the Zeyto program (the Edge) and a private database. Every other PC, tablet and phone talks to that computer. Zeyto has a small cloud on a server of its own, but the cloud holds no business data. It holds licences, customer accounts, downloads and a switchboard called the relay.



Architecture. The Edge and its database sit on one computer in the shop. PCs and browsers reach the Edge directly over the shop network. The Edge also opens an outbound connection to the relay, which is how phones and people outside the shop reach it without any change to your router.

The pieces

PIECE	WHAT IT DOES
Zeyto Edge	The Zeyto program. Windows service `ZeytoEdge`. It serves the web app and the programming interface under `/api/v1`, runs the posting engine and holds the rules. By default it listens on port 8443 on the shop network.
PostgreSQL 17	The shop database. Windows service `ZeytoPostgres`, bundled and private. It listens on this computer only, on a random port between 55432 and 59999.
Web app	One React web app. The same screens run in the Windows shell, in a browser over the shop network, on the POS till and in the phone app.
Zeyto Shell	The Windows desktop program (WPF with WebView2). It only displays the web app. `--pos` makes a full-screen till.
Zeyto Client	The Shell alone, installed on other PCs. It has no Edge and no database. It finds the shop address on the network, or pairs by a code when it is away from the shop.
Phone app	A Flutter app that wraps the web app. It pairs by QR and reaches the Edge through the relay.
Platform API	Licence issue and activation, customer accounts, update information, downloads.
Relay	A switchboard that passes traffic between a phone or remote browser and your Edge. It keeps no data.
Website and portal	zeyto.app. Where you buy, manage licences and devices, and download installers.

Where the data lives

All your business data is in the database on the Zeyto computer, under `C:\ProgramData\Zeyto\`. The cloud holds no business data. Remote traffic passes through Zeyto's relay over an encrypted connection (TLS). The relay keeps no copy, and you should know that your remote traffic does travel through Zeyto's servers. One Edge and one database serve one physical site. A second branch in another place has its own Edge and syncs to the head office.

What needs the internet

NEEDS THE INTERNET	WORKS WITHOUT IT
Renewing the licence	All daily work: sales, purchase, stock, accounts, VAT
Checking for updates	Printing and PDF
Sending a document by WhatsApp or email	Backups and restores
Phones and browsers away from the shop	The POS till, which keeps a durable queue of sales if the Edge cannot be reached

At the till, a receipt made while offline prints with an OFFLINE banner, and the sale is sent when the connection returns. The bottom bar of the web app shows Connected, Reconnecting or Working offline. A banner means a connection problem, not lost data.

The licence and what happens when it ends

The licence is a file signed by Zeyto (`license.zlic`) and checked when the Edge starts. A licence past its date keeps working in full for a grace period, with an amber strip showing the days left. After the grace period the system goes read-only: you can still view, print and export, and your data is safe and never deleted. The licence also limits how many people can be signed in at once on each kind of device (desktop, web, mobile). Settings ▸ License shows the seats in use.

> **WARNING**
> The installers are not code-signed yet, and the Edge answers on plain HTTP inside the shop network by default. Keep the shop Wi-Fi private, and look at Settings ▸ LAN Security before you give guests access to the network.

> Source: `docs/architecture/zeyto-architecture.md` , `docs/operations/system-map.md` , `docs/blueprint.md` (sections 2.2 to 2.4), `src/Zeyto.Web/src/help/content/start.ts` (pages start.how-zeyto-works, start.users-and-permissions)

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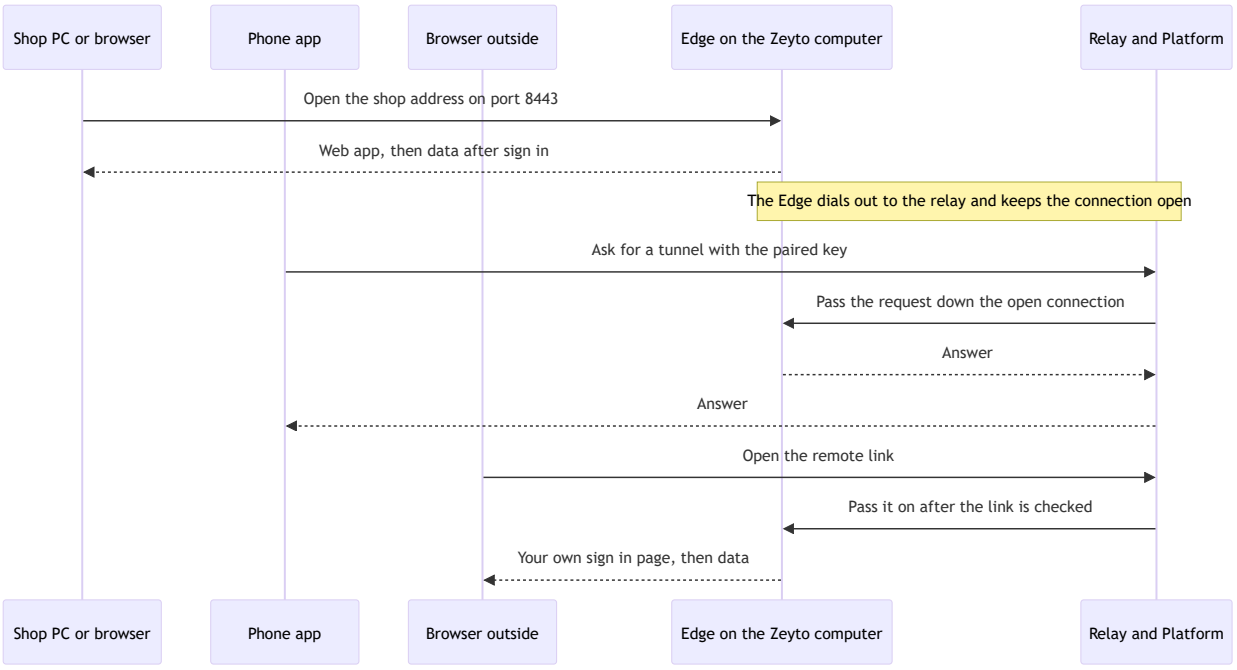
3. How a PC, a phone or a person outside reaches your data

There are three ways in. They differ in who stands between the user and the Edge.

Inside the shop
A PC, tablet or browser opens the shop address (Start Menu ▸ Zeyto LAN URL shows it). It talks to the Edge directly. Nothing leaves the building.

Phone app
The phone pairs once by QR. After that it reaches the Edge through the relay, from anywhere, using the key from the pairing.

A browser or PC outside
A link, or a PC pairing code, that opens your own Zeyto through the relay. The person still signs in with their own Zeyto username and password.

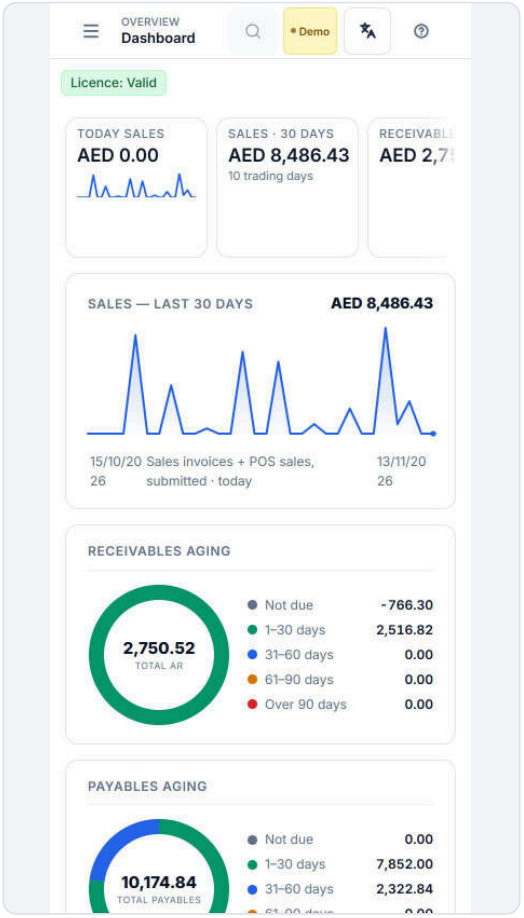


Three ways to reach the Edge. The first is direct. The other two pass through the relay, and the Edge made that connection itself, so no router setting or open port is needed. The relay is a pipe and keeps no copy of your data.

Connect a phone

1. **Open the screen.** On the Zeyto computer or any signed-in PC, go to `Settings ▸ Remote & Mobile Access`.
2. **Allow it.** Tick **Allow remote and mobile access**.
3. **Make a code.** Press `Generate pairing code`. It works for 5 minutes.
4. **Scan it.** In the Zeyto mobile app press `Scan Access QR` and scan the code on the screen.
5. **Sign in.** The phone loads your system and asks for your own Zeyto username and password.

> **RULE**
> An app older than 0.3.3 cannot load Zeyto through the relay at all. The current app is 0.3.3. It installs over 0.3.2 and does not update itself, so older phones need it installed by hand.



The Dashboard at phone width. This is the same Zeyto screen shown at 390 by 844 pixels, not a picture of the phone app itself. The cards stack in one column: a green Licence: Valid chip, then Today Sales (AED 0.00), Sales 30 days (AED 8,486.43 over 10 trading days) and a third card, Receivables, that runs off the right edge. Below come the Sales - Last 30 Days chart and the Receivables Aging ring (total AR 2,750.52) with the Payables Aging card starting underneath.

Open your system from anywhere

1. **Open the screen.** Go to `Settings ▸ Remote & Mobile Access`.
2. **Create a link.** Under "Open your system from anywhere" press `Create link`. The address looks like `https://<your shop>.remote.zeyto.app/r/...`.
3. **Send it.** Send the link to the person. They still sign in with their own Zeyto username and password, and they use one of your seats.
4. **Cut it off.** Press `Turn off` beside the link when it is no longer needed.

A PC outside the shop

For a Zeyto Client PC that is away from the shop, press `Create pairing code` under "Use Zeyto Client from outside the shop". The code looks like `XXXXX-XXXXX`, works for 15 minutes and can pair up to 20 PCs. The PC trades it for its own stored credential. Each time it opens, the Client first tries the shop address, and if that is not reachable it asks Zeyto for a one-minute, single-use ticket. A paired PC can be cut off at once by turning it off in the same screen.

Links and PC pairing need the Web module in the licence and the permission to change settings. Large uploads, over about 600 KB, must be done on the shop network.

> Source: `docs/architecture/zeyto-architecture.md`, `src/Zeyto.Web/src/help/content/start.ts` (page start.backup-sync-and-remote), `docs/operations/system-map.md`

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4. The one pattern: masters, documents, reports

Every screen in Zeyto is one of three kinds. If you know which kind you are on, you know what it will do.

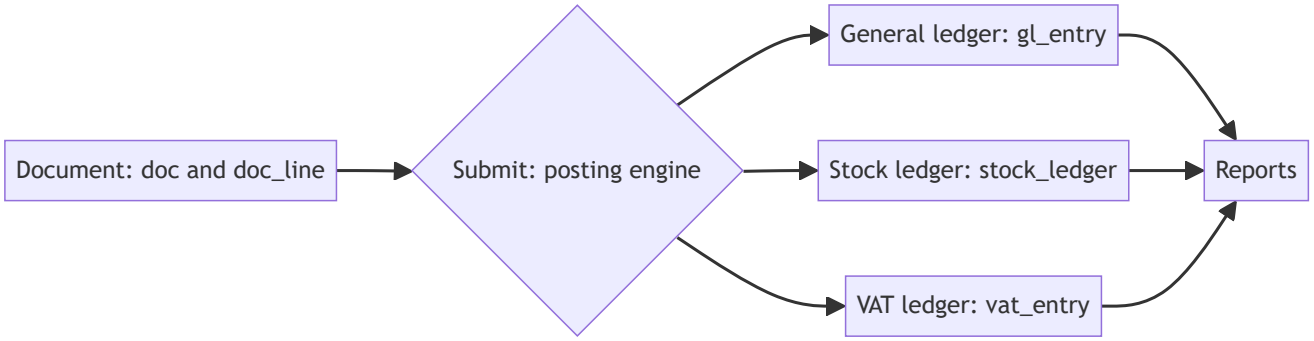
Master
A list you set up once and pick from again and again: customers, suppliers, items, accounts, price lists, warehouses. A master is never posted. You open the list first, then the form.

Document
A record of something that happened, with a date and a number: an invoice, an order, a receipt, a journal. A document starts as a Draft and becomes real when you Submit it.

Report
A read-only view of what was posted. A report never changes your data. Every entry you post shows up in every report that should show it.

Posting: what Submit really does

Posting means writing a submitted document into your books. One document can write into three ledgers at the same time: the general ledger (money), the stock ledger (quantities and cost) and the VAT ledger (tax by box). A draft writes nothing.

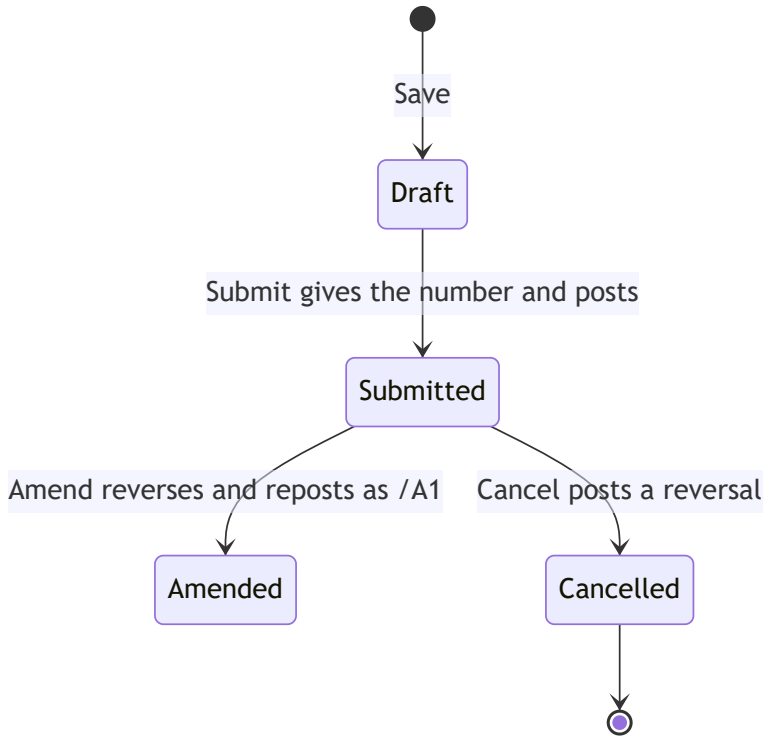


One Submit, three ledgers. The posting engine writes all three in one posting. Reports read the ledgers.

RULE

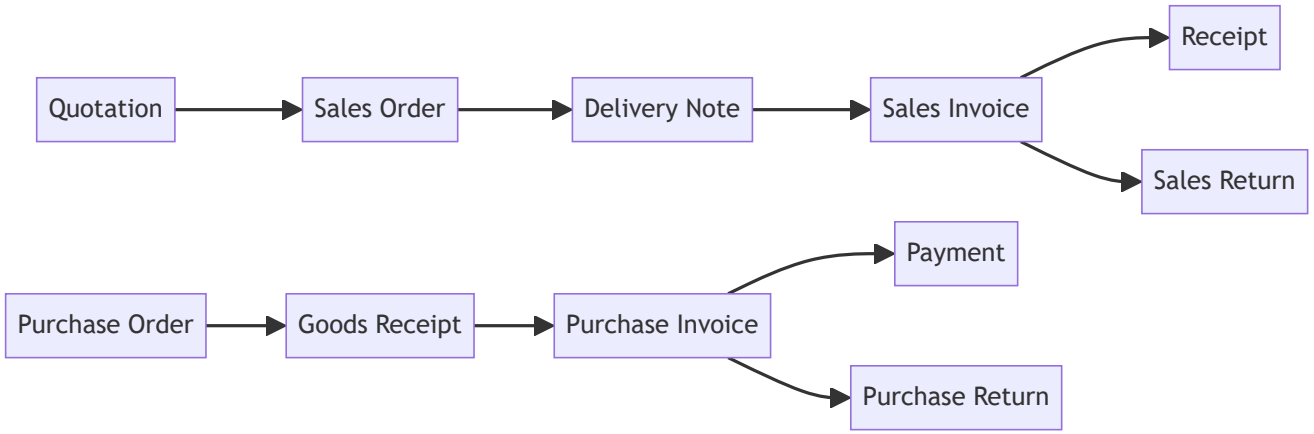
Ledgers are append-only. Zeyto never edits or deletes a posted entry. A correction is a new reversing entry. The engine refuses to post an entry whose debits do not equal its credits. Numbers are given at Submit and have no gaps.

The document lifecycle



Draft, Submit, Amend, Cancel. A submitted document is never edited in place. A cancelled document cannot be reopened. Amend and Cancel are refused while a later document was made from this one, and inside a VAT period that has been filed.

Documents also form chains. You can build the next document from the one before, and the lines carry forward. The document keeps a link to the document it came from.



The two document chains. A quotation, order and proforma post nothing. A delivery note takes stock out. The invoice bills. A receipt settles the invoice. The purchase side is the mirror: order, goods receipt, invoice, payment.

What can stop a Submit

- No open fiscal year covers the document date. Posting is refused with "no open fiscal period covers that date".
- The date is inside a VAT period you have already filed. Submit, Amend and Cancel are refused there.
- Posting Controls can block future-dated documents, lock the books up to a date, and require a customer LPO or TRN on a sales invoice.
- Credit Control can warn or block when a customer would go over a credit limit or has overdue invoices.
- An approval rule can hold a document until an approver agrees. Approve it in Overview ▸ Approvals, then open the document and press Submit again.

REAL EXAMPLE

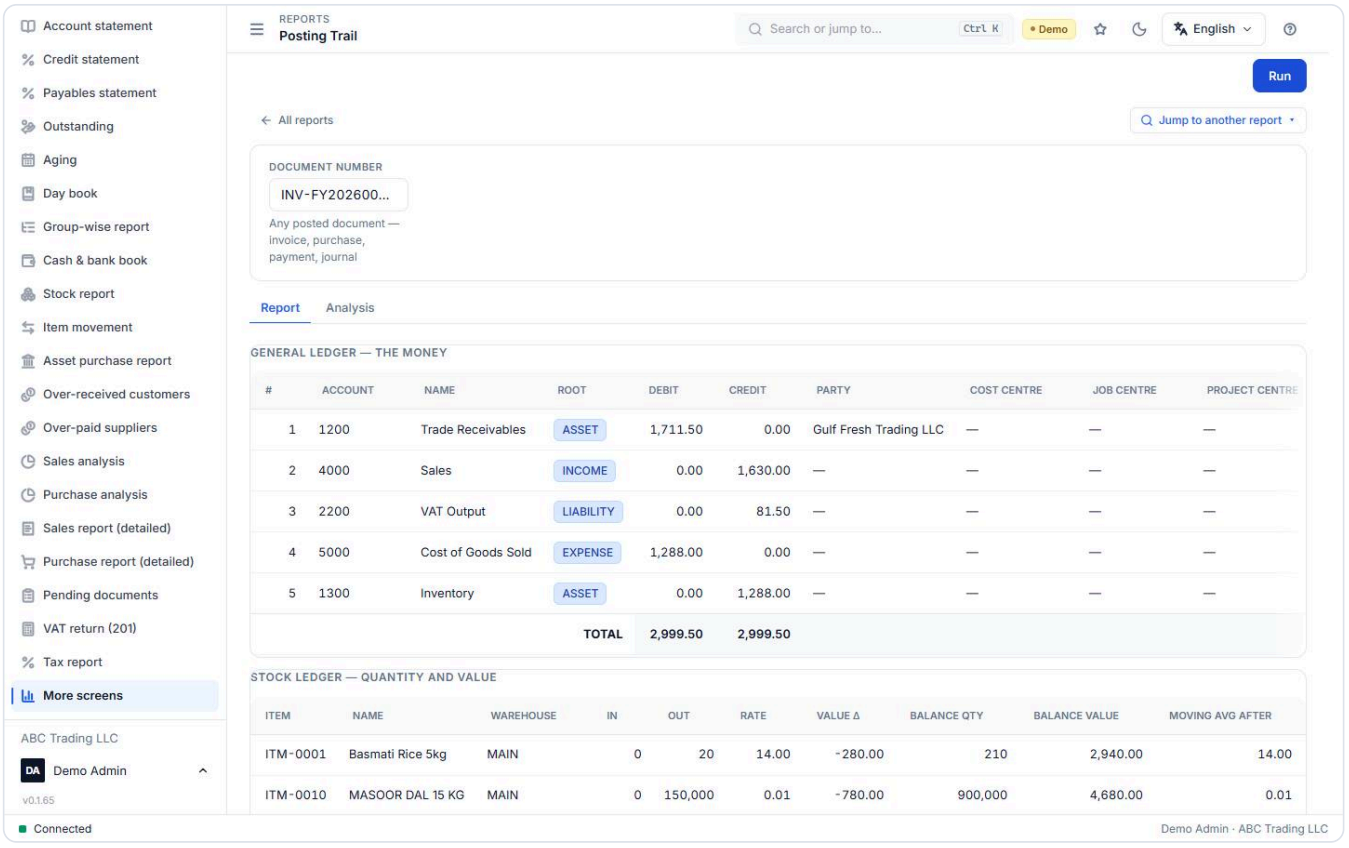
One cash invoice writes to all three ledgers (GS_INV_01)

A cash invoice for 10 units of item A at 18.50 and 3 units of item B at 15.00. VAT is 5%. The golden test posts this invoice as INV-00001. Amounts are AED. The demo company in the screenshots puts the fiscal year into its numbers, so its first invoice reads INV-FY202600001. Both are ordinary numbering series; what you get depends on Settings ▸ Numbering.

GENERAL LEDGER ACCOUNT	DR	CR
1000 Cash in Hand	241.50	
4000 Sales		230.00
2200 VAT Output		11.50
5000 Cost of Goods Sold	124.00	
1300 Inventory		124.00
Total	**365.50**	**365.50**

LEDGER	WHAT WAS WRITTEN
Stock ledger	Item A out 10 at cost 10.00. Item B out 3 at cost 8.00. Left: A 10 (value 100.00), B 7 (value 56.00).
VAT ledger	One OUTPUT row: taxable 230.00, VAT 11.50, box 1.

Cost of goods sold is 10 × 10.00 plus 3 × 8.00, which is 124.00. The golden test calls the items Golden Stock Item A and B.



One document, its ledger lines. The Posting Trail report (Reports ▸ Posting Trail) for the demo invoice INV-FY202600001 to Gulf Fresh Trading LLC. The block General Ledger - The Money lists Trade Receivables 1,711.50 debit, Sales 1,630.00 credit, VAT Output 81.50 credit, Cost of Goods Sold 1,288.00 debit and Inventory 1,288.00 credit, with both totals at 2,999.50. Under it the Stock Ledger - Quantity and Value block starts with one row per item. Quantities are in each item's base unit, which is why MASOOR DAL 15 KG shows 150,000 (grams).

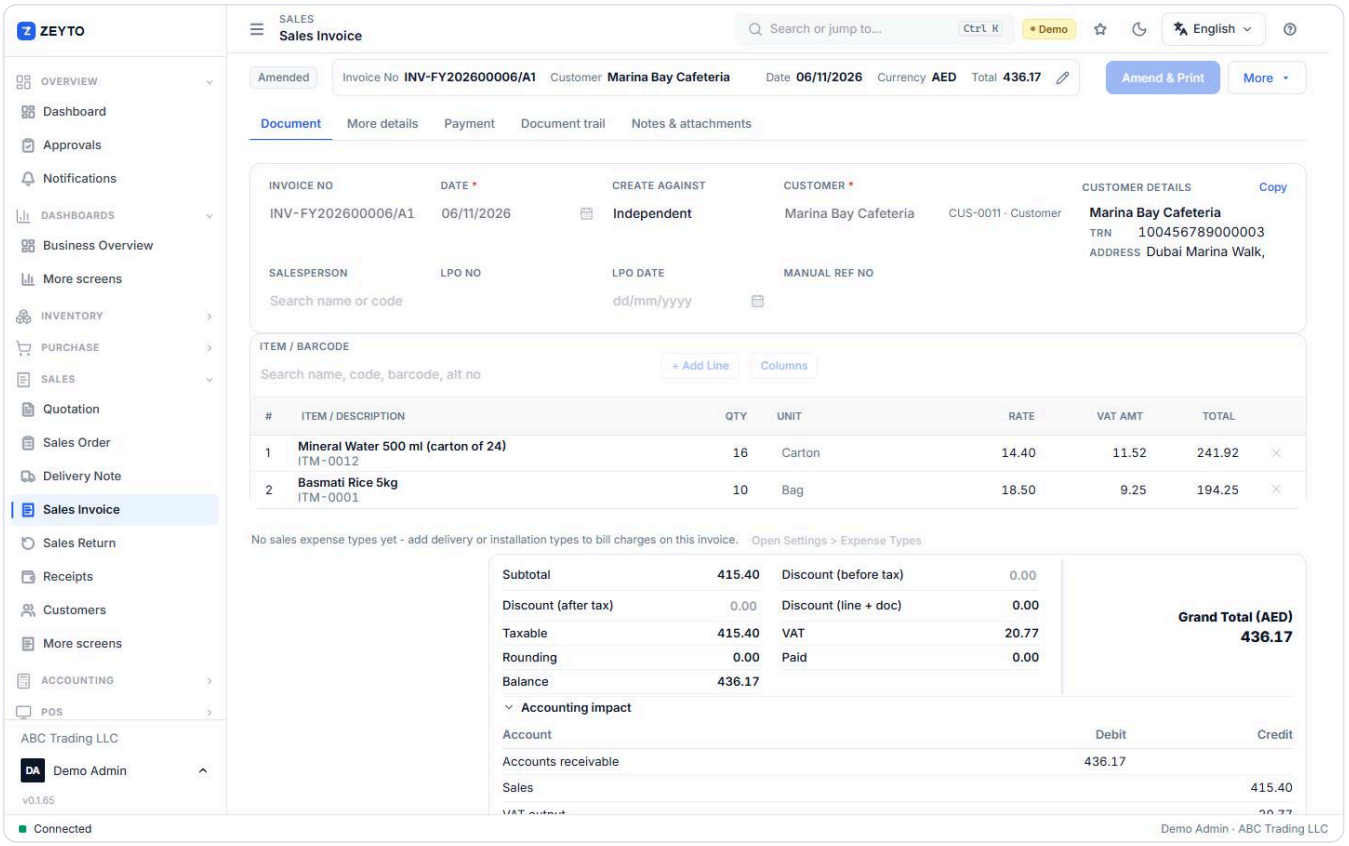
ILLUSTRATIVE FIGURES

Cancel posts the opposite entry

You cancel the invoice above. Zeyto does not delete anything. It posts the mirror image, and the invoice stays visible as Cancelled.

ACCOUNT	DR	CR
4000 Sales	230.00	
2200 VAT Output	11.50	
1000 Cash in Hand		241.50
1300 Inventory	124.00	
5000 Cost of Goods Sold		124.00
Total	**365.50**	**365.50**

The two entries together leave every account where it was before the invoice. The 10 units of item A and 3 of item B are back in stock at their old cost. If you used Amend instead, the old posting would be reversed this way and the corrected one posted, and the number would become INV-00001/A1.



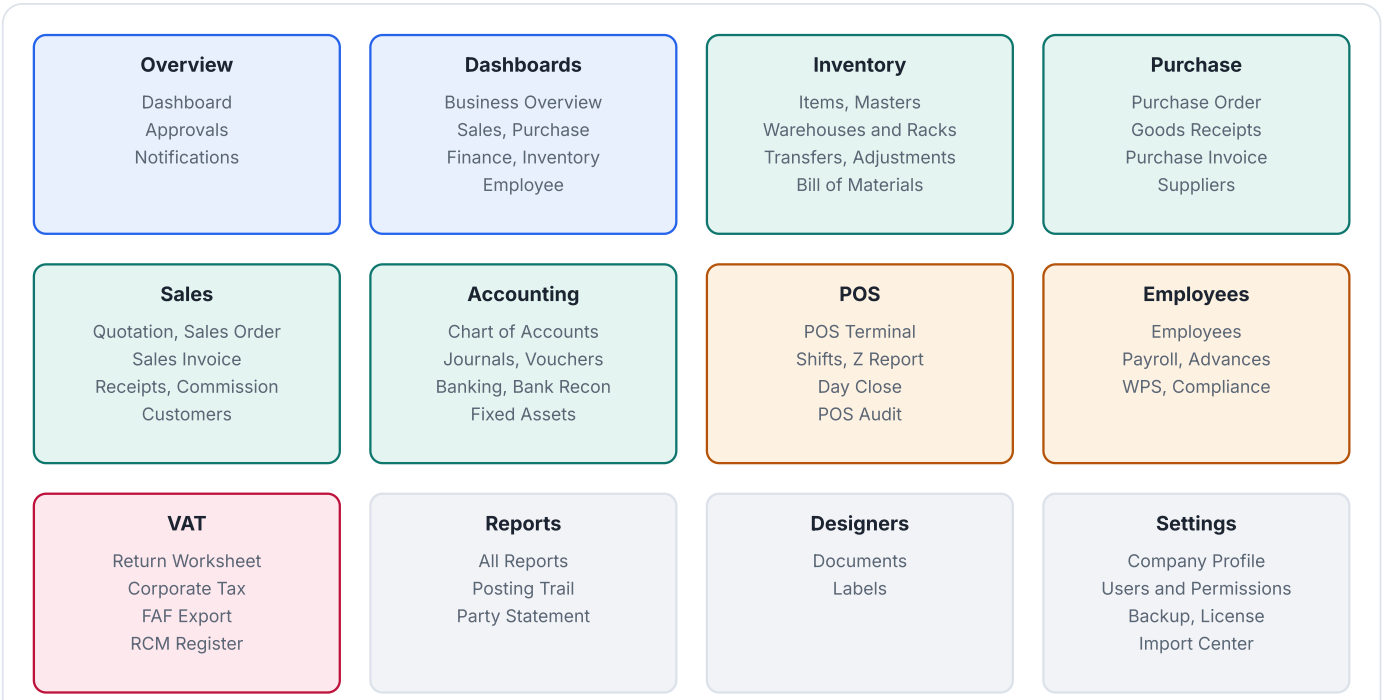
What Amend leaves behind. Demo invoice INV-FY202600006/A1 for Marina Bay Cafeteria. The number carries the /A1 suffix, the chip at top left reads Amended, the fields and lines are greyed out, and the main button reads Amend & Print in a paler blue. Under the totals (grand total 436.17) the Accounting impact section is open and starts with Accounts receivable 436.17 on the debit side and Sales 415.40 on the credit side.

> Source: `src/Zeyto.Web/src/help/content/start.ts` (pages start.how-zeyto-works, start.documents-lifecycle), `src/Zeyto.Edge/Data/migrations/0004-documents.sql`, `src/Zeyto.Edge/Data/migrations/0005-ledgers.sql`, `tests/Zeyto.Tests/GoldenPostingTests.cs`

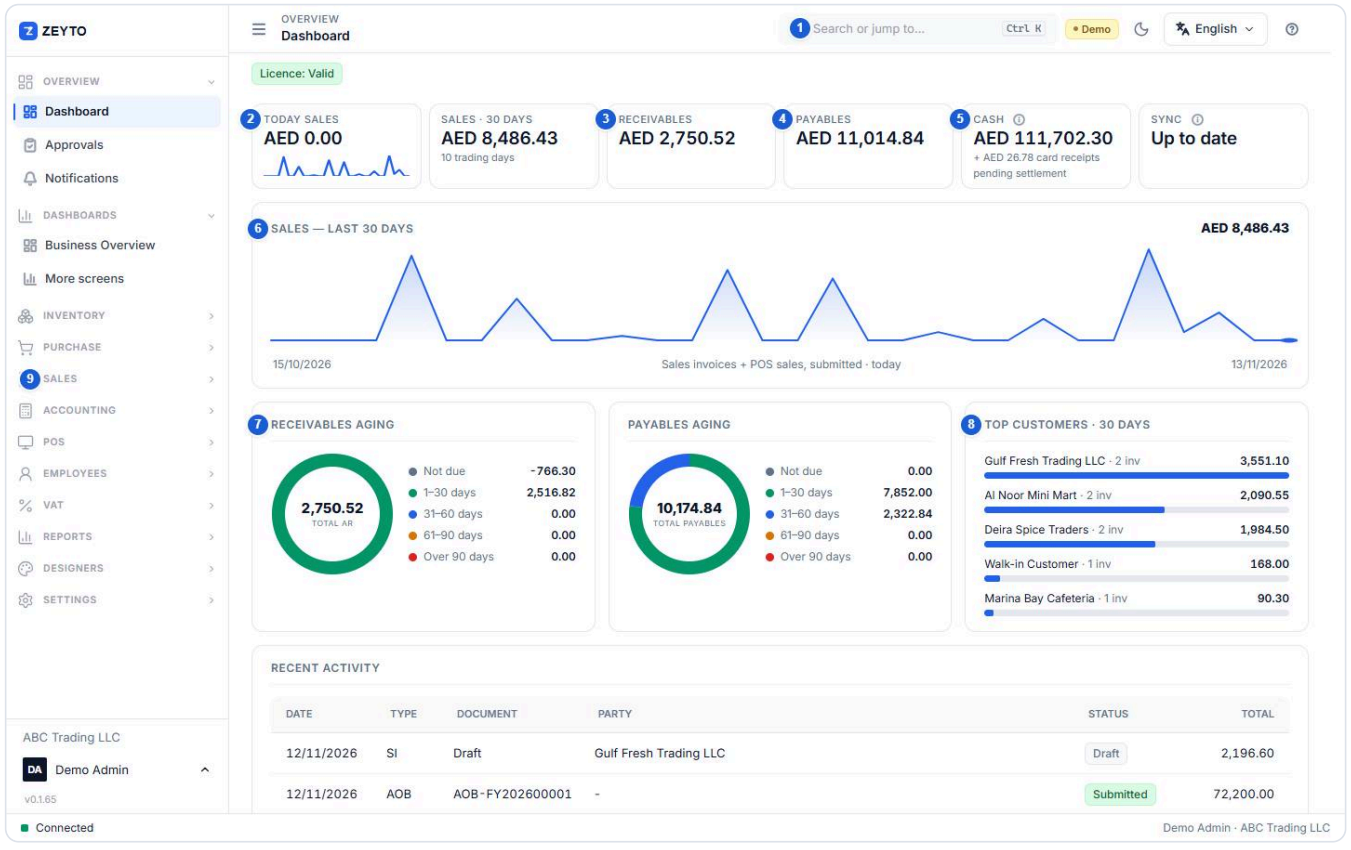
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5. A guided tour of the sidebar

The sidebar is in the order of a working day. By default Zeyto shows the essential screens of each group and a "More screens" hub, so a new user sees a short list. To show every screen, open `Settings ▸ Theme Engine ▸ Appearance` and set Menu to Full. Press `Ctrl+K` at any time to search any screen, item, customer, supplier, document, account or employee by name.



The twelve sidebar groups. Each box shows a few of the real screens. Green groups are the daily trading work, amber groups are people and the till, red is tax, grey is output and setup.



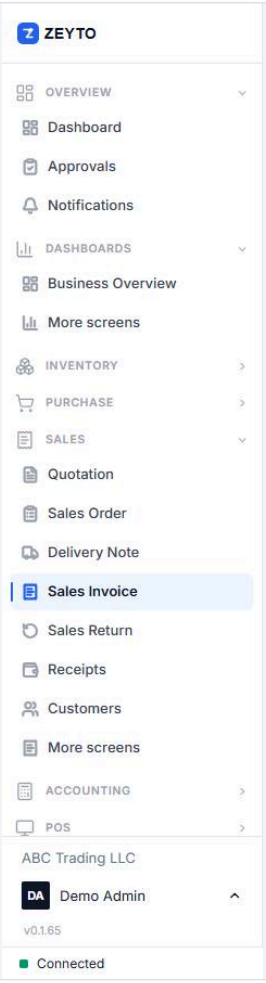
The Dashboard, the first screen you see. Demo company ABC Trading LLC. The strip at the top shows Licence: Valid. The row of cards reads Today Sales, Sales 30 days, Receivables, Payables, Cash and Sync (Up to date). Below are the 30-day sales chart, Receivables Aging, Payables Aging, Top Customers and a Recent Activity list.

1. Search or jump to... (Ctrl K): the search box in the top bar. Type part of a screen, item, customer or document name and open it.
2. TODAY SALES card: what was sold today, with a small trend line. It reads AED 0.00 on the day this picture was taken.
3. RECEIVABLES card: the total your customers owe you (AED 2,750.52 here).
4. PAYABLES card: the total you owe your suppliers (AED 11,014.84 here).
5. CASH card: your cash figure (AED 111,702.30), with a note that AED 26.78 of card receipts is still pending settlement.
6. SALES - LAST 30 DAYS chart: a line of daily sales, from sales invoices and POS sales that were submitted.
7. RECEIVABLES AGING: the customer balances split into Not due, 1-30 days, 31-60 days, 61-90 days and Over 90 days.
8. TOP CUSTOMERS - 30 DAYS: the five customers with the most sales, with their invoice counts and totals.
9. SALES: one of the module groups in the left menu. Click a group to open its screens.

The groups and what they are for

GROUP	WHAT YOU DO THERE	SCREENS
Overview	See today's figures, approve documents, read notifications.	Dashboard, Approvals, Notifications
Dashboards	One summary page for each area.	Business Overview, Sales Dashboard, Purchase Dashboard, Finance Dashboard, Inventory Dashboard, Employee Dashboard
Inventory	Keep items and stock.	Masters: Items, Masters, Variants, Print Labels, Price Lists, Discounts, Warehouses & Racks. Stock Movements: Transfers, Opening Stock, Adjustments, Reconciliation. Manufacturing: Bill of Materials, Production Entry. Serials & Warranty: Serials / IMEI, IMEI Replacement, Warranty Jobs
Purchase	Buy and pay suppliers.	Purchase Order, Goods Receipts, Purchase Invoice, Purchase Return, Asset Purchase, Suppliers, RCM Self-Accounting, Expense Types, Landed Cost
Sales	Quote, sell, collect.	Documents: Quotation, Sales Order, Proforma, Delivery Note, Sales Invoice, Sales Return. Collections: Receipts, Advance Tax Invoices. Field Sales: Field Sales, Field Sales Sessions. Sales Activity: My Day, Enquiries, Monthly Plans, Visits and Calls, Prospects, Activity Reports, Activity Settings. Commission: Commission, My Commission. Masters: Customers, Territories, Expense Types. RCM / VAT: RCM Declarations, RCM Mixed Invoice, RCM Guardrails
Accounting	Keep the books.	Ledger: Chart of Accounts, Day End, Openings, Cost / Job / Project Centers, Journals, Taxable Journal, Adjustment Journal. Vouchers: Expenses, Receipts, Payments, Advances. Petty Cash: Petty Cash, PC Vouchers, PC Replenishments, PC Cash Count, PC Count History, PC Staff Advances. Banking: Bank Accounts, Banking, Inter-Account Transfer, Post-dated Cheques, Cheque Print, Cheque Formats, Bank Recon, Card Settlements. Amortization: Amortization Expense, Amortization Schedules, Post Amortizations. Fixed Assets: Fixed Assets, Asset Categories, Depreciation Run. Period End: Year-End Close

GROUP	WHAT YOU DO THERE	SCREENS
POS	Sell at the till and close the day.	POS Terminal, POS Receipts, Shifts, Z Report, Day Close, POS Audit
Employees	People and pay.	Employees, Compliance, Payroll, Advances, WPS
VAT	Prepare tax returns.	Return Worksheet, Corporate Tax, FAF Export, Import VAT (Box 6/7), RCM Register
Reports	Read what was posted.	All Reports, Business Insights, the financial statements, Posting Trail, Party Statement, Outstanding and more
Designers	Design how documents and labels print.	Documents, Labels
Settings	Set up and look after the system.	Company Setup, Finance & Tax, Operations, Workflow, Security & System

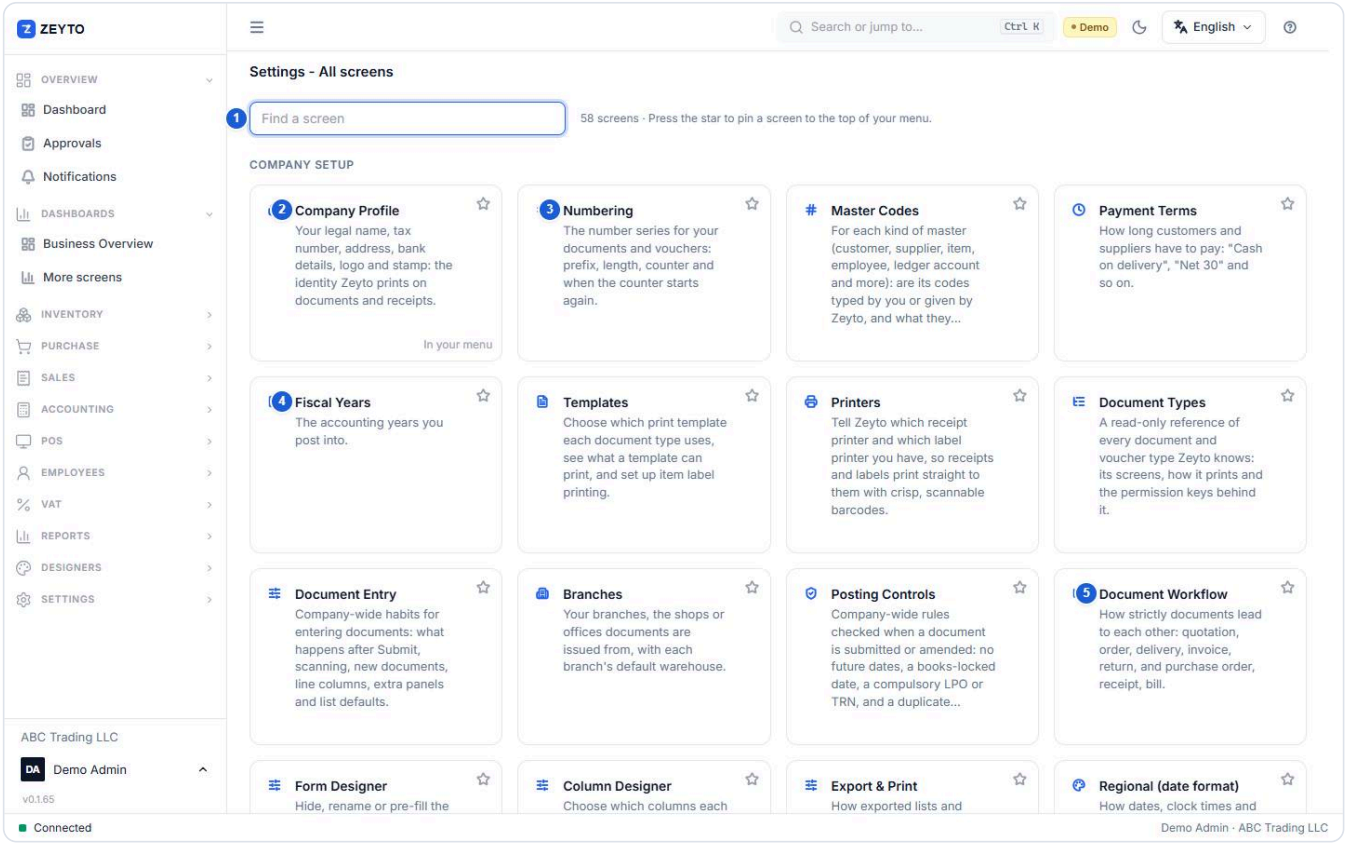


The left menu with Sales open. Sales shows Quotation, Sales Order, Delivery Note, Sales Invoice (highlighted, because it is the open screen), Sales Return, Receipts, Customers and a More screens entry for the rest. Overview and Dashboards are open above it, and Inventory, Purchase, Accounting and POS are closed. At the bottom are the company name, the signed-in user, the version (v0.1.65) and the green Connected word.

Settings, by section

SECTION	SCREENS
Company Setup	Company Profile, Numbering, Master Codes, Payment Terms, Fiscal Years, Templates, Printers, Document Types, Document Entry, Branches, Posting Controls, Document Workflow, Form Designer, Column Designer, Export & Print, Regional, Theme & Language
Finance & Tax	Costing, Credit Control, Tax, UAE E-Invoicing, Payment Modes, Expense Types, Merchant Fees, Commission, RCM Categories, Currencies, Exchange Rates, Label Cost Encoding
Operations	POS Behaviour, Daily Owner Report, Reminders, POS Sale Extras, Management, Sharing, Import Center, Migration Review, Legacy Archive, Translations
Workflow	Workflow Dashboard, Workflow Inbox
Security & System	Audit Log, Error Log, Software Update, Diagnostics Bundle, Sync Monitor, Recycle Bin, Users & Permissions, Security Policy, Approval Rules, Approval Delegations, Workflow Designer, Data Mode, License, LAN Security, Backup, Reset Company Data, Remote & Mobile Access

Settings also has a home page that shows every settings screen as a card. Type in the Find a screen box to narrow the cards, and press the star on a card to pin that screen to the top of your menu.



The Settings home. The page is titled Settings - All screens and counts 58 screens in this build. The cards are grouped under headings; the first heading, Company Setup, holds Company Profile, Numbering, Master Codes, Payment Terms, Fiscal Years, Templates, Printers, Document Types, Document Entry, Branches, Posting Controls, Document Workflow and more below.

1. Find a screen: the search box. Type part of a name to filter the cards.

2. Company Profile: your legal name, tax number, address, bank details, logo and stamp, the identity Zeyto prints on documents and receipts. It carries the tag In your menu.
3. Numbering: the number series for your documents and vouchers: prefix, length, counter, and when the counter starts again.
4. Fiscal Years: the accounting years you post into.
5. Document Workflow: how strictly documents lead to each other, from quotation and order through delivery, invoice and return, and on the purchase side purchase order, receipt and bill.

1. **Find your bearings.** Look at the top bar: the button to hide the navigation, the search box (it reads Search or jump to... and shows Ctrl K), the yellow Demo tag when the company runs in demo data mode, a star button, a moon button, the Language button and the Help button.
2. **Open the help.** Press `F1` on any screen. It opens the page written for that screen. Press F1 again, or Esc, to close it.
3. **Open two screens.** Open Sales ▸ Sales Invoice, then press `Ctrl+K`, type Customers and open it. Up to 12 workspace tabs stay open. Switch with `Ctrl+Tab`.
4. **Read the status bar.** At the bottom, click the connection word. It shows the Edge server, the database, saving, phones and other devices, updates and the last backup.
5. **See every screen.** Open Settings ▸ Theme Engine ▸ Appearance and set Menu to Full if you want the long menu.

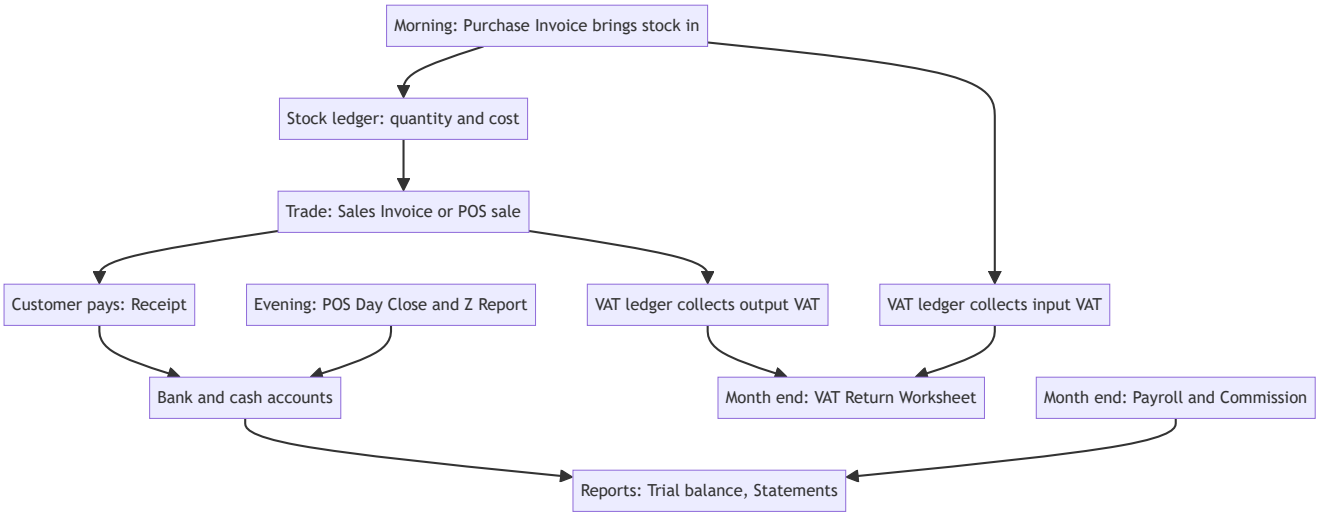
> **TIP**
> If a menu item or button is missing, open Settings ▸ Users & Permissions ▸ Security Map. It lists each form with the licence module it needs and the permission it requires, and which roles have it.

> Source: `src/Zeyto.Web/src/screens/nav.ts`, `src/Zeyto.Web/src/help/content/start.ts` (pages start.how-zeyto-works, start.finding-your-way, start.users-and-permissions)

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6. A day in the shop

This is how the groups work together in one ordinary day. Follow the arrows, then follow the money in the example below.



The shop day. Purchases fill stock and input VAT. Sales empty stock, collect output VAT and create what customers owe. Receipts and the Day Close move money to cash and bank. Reports read the result. At month end the VAT Return Worksheet adds the two VAT columns, and payroll and commission post their own entries.

ILLUSTRATIVE FIGURES

One day, four documents, every journal

The sale lines are those of the golden test GS_INV_01 and GS_INV_02. The purchase and the two settlements are derived from the same rules. Amounts are AED and VAT is 5%.

1. Morning. Purchase Invoice on credit. You buy 20 units of item A at 10.00 and 10 units of item B at 8.00 from a supplier. Net is 280.00, input VAT is 14.00, you owe 294.00.

ACCOUNT	DR	CR
1300 Inventory	280.00	
1400 VAT Input	14.00	
2100 Trade Payables		294.00
Total	**294.00**	**294.00**

2. Midday. Cash sale. The journal is the one shown in section 4: Dr 1000 Cash in Hand 241.50, Cr 4000 Sales 230.00, Cr 2200 VAT Output 11.50, and Dr 5000 Cost of Goods Sold 124.00, Cr 1300 Inventory 124.00.

3. Afternoon. Sale on credit. 2 units of item A at 18.50 to a customer on credit: net 37.00, VAT 1.85, customer owes 38.85, cost 20.00.

ACCOUNT	DR	CR
1200 Trade Receivables	38.85	
4000 Sales		37.00
2200 VAT Output		1.85
5000 Cost of Goods Sold	20.00	
1300 Inventory		20.00
Total	**58.85**	**58.85**

4. Evening. The customer pays and you pay the supplier. Two vouchers: a Receipt of 38.85 in cash and a Payment of 294.00 from the bank.

ACCOUNT	DR	CR
1000 Cash in Hand	38.85	
1200 Trade Receivables		38.85
2100 Trade Payables	294.00	
1100 Bank, Current Account		294.00
Total	**332.85**	**332.85**

What the day left behind.

CHECK	RESULT	HOW IT COMES
Stock value on hand	136.00	280.00 bought, minus 124.00 and 20.00 sold. Item A: 8 units at 10.00 = 80.00. Item B: 7 units at 8.00 = 56.00.
Output VAT	13.35	11.50 + 1.85
Input VAT	14.00	From the purchase
Net VAT for the period	-0.65	Input is 0.65 more than output, so it is a refund position for these four documents
Sales for the day	267.00	230.00 + 37.00
Cost of sales for the day	144.00	124.00 + 20.00
Owed to the supplier	0.00	294.00 raised and paid
Owed by customers	0.00	38.85 raised and received

> Source: `src/Zeyto.Web/src/help/content/start.ts` (page start.how-zeyto-works), `tests/Zeyto.Tests/GoldenPostingTests.cs`, `src/Zeyto.Web/src/help/content/sales-documents.ts`, `src/Zeyto.Web/src/help/content/start.ts` (page start.vat-basics)

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7. Check yourself and common mistakes

Check yourself

1. Open Start Menu ▸ Zeyto LAN URL on the Zeyto computer. The address works from a second PC on the same network.
2. In Settings ▸ License the seats in use match the people signed in now.
3. In the bottom bar the word Connected shows. Pull the network cable on a client PC and watch it change to Working offline or Reconnecting, then back.
4. Submit one test invoice and open Reports ▸ Posting Trail. The lines you see are in the general ledger, the stock ledger and the VAT ledger.
5. Open the Trial Balance. Debits equal credits, always.
6. Open a Draft. Nothing about it appears in any report until you Submit it.
7. Cancel the test invoice. The invoice stays in the register marked Cancelled, and a reversing entry appears in the Posting Trail.
8. Open Settings ▸ Backup. A backup exists and has been restore-tested.

Common mistakes

SYMPTOM	CAUSE	FIX
A group in the sidebar shows an "Add-on" tag	The module is not in your licence.	Press the item to see which module. Upgrade or renew in the portal.

SYMPTOM	CAUSE	FIX
A screen says Access Restricted	Your role does not include the permission, or the licence does not include the module.	Ask an administrator to check Settings ▸ Users & Permissions ▸ Security Map.
A phone app cannot load through the relay	The app is older than 0.3.3.	Install app 0.3.3 by hand.
A pairing code is rejected	The phone code works for 5 minutes only. The desktop code works for 15 minutes.	Generate a new code.
An ERP licence is refused by a Garage or Sharp install	The products do not mix. The answer is PRODUCT_MISMATCH.	Use the licence issued for that product.
Everything is read-only	The licence is past its grace days.	Renew or activate a licence. Your data is safe.
You expected a draft to show in reports	A draft posts nothing.	Submit it.
You tried to delete a posted invoice	Posted entries are never deleted.	Use Amend or Cancel. Both post reversals.
Amend or Cancel is refused	A later document was made from it, or its date is inside a filed VAT period.	Cancel the later document first. A filed period cannot be reopened.
Work stops when the internet drops	It should not. Only licence renewal, updates, WhatsApp and email sending, and remote access need it.	Check the bottom bar. If it says Working offline the problem is the link to the Zeyto computer, not the internet.

> Source: `src/Zeyto.Web/src/help/content/start.ts`, `docs/architecture/zeyto-architecture.md`, `docs/operations/sharp-product-cloud-change.md`, `src/Zeyto.Web/src/screens/nav.ts`

START HERE

Your first hour with Zeyto

Follow this chapter from a freshly installed Zeyto to your first posted invoice. You will fill in the company, fiscal year and numbering, check the accounts and tax codes, add warehouses, items, customers and suppliers, load opening balances, take a backup, and then watch one invoice move through stock, accounts and VAT.

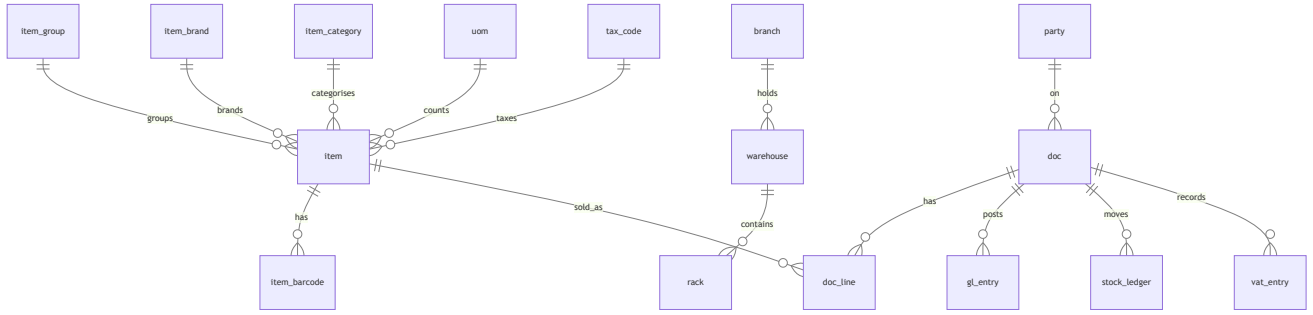
1. The setup order and why it matters

Zeyto asks for some things before others. An item needs a VAT code before it can be sold. A document needs an open fiscal year before it can be submitted. Opening balances need the accounts, customers, suppliers, items and warehouses they refer to. If you follow the order below you meet no error that says "does not exist".



Setup order. Each step feeds the next. Customers, suppliers and items can be loaded in bulk with the Import Center, which has its own order: groups before items.

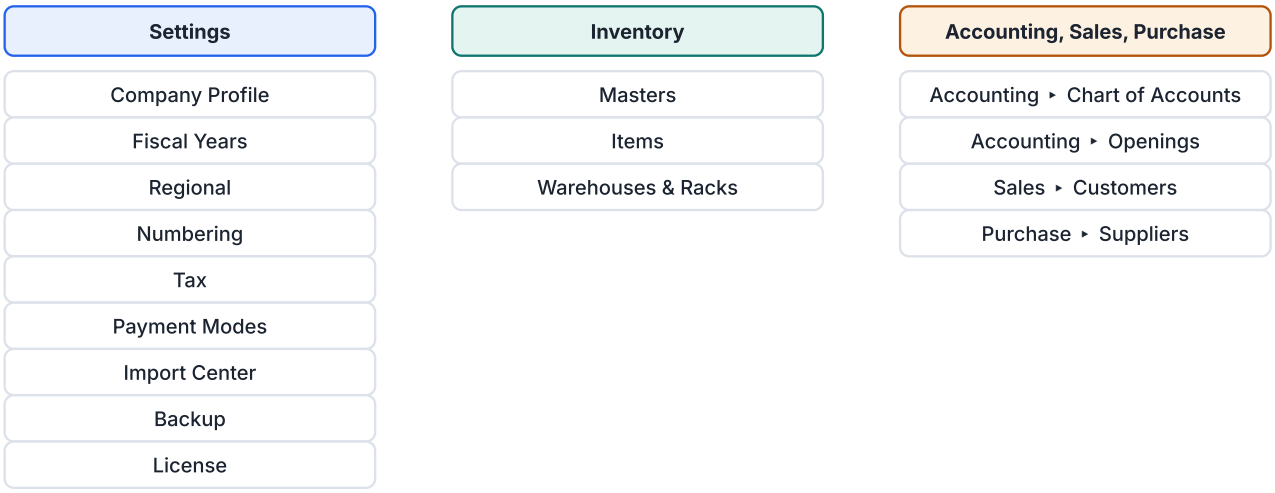
The next picture shows how the master data you are about to create is linked. The names are the real table names in the Zeyto database. An item points to a group, a brand, a category, a base unit and a tax code. A document points to a party (customer or supplier), a warehouse and a branch, and each line points to an item and a tax code. Posting writes rows into three ledgers: the general ledger (`gl_entry`), the stock ledger (`stock_ledger`) and the VAT ledger (`vat_entry`).



Master data and what a document touches. One submitted document writes to the general ledger, the stock ledger and the VAT ledger together. Nothing is written to them from a draft.

RULE

Every item has a VAT code. A group can carry a Default VAT Code, and new items in it start on it. A new item with no group starts on SR5, the 5% standard rate.



Where the setup screens live. Most first-hour work is in Settings. Item lists are in Inventory. Opening balances and the chart are in Accounting. Customers and suppliers sit in Sales and Purchase.

What you need on the desk

- Your company name, address, logo and TRN (15 digits) if you are VAT registered.
- The date your financial year starts and ends.
- The date of your opening position, usually the last day of the previous period.
- Balances on that date: cash, bank, fixed assets, loans, capital, what each customer owes by invoice, what you owe each supplier by invoice, and a stock count by warehouse with cost.
- Lists of items, customers and suppliers in a spreadsheet, if you want to bulk load them.

> Source: `src/Zeyto.Edge/Data/migrations/0003-masters.sql`, `src/Zeyto.Edge/Data/migrations/0004-documents.sql`, `src/Zeyto.Edge/Data/migrations/0005-ledgers.sql`, `src/Zeyto.Web/src/help/content/start.ts` (page start.how-zeyto-works)

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2. Install and first run

A normal shop has one Zeyto computer. It runs the Zeyto program (the Edge) and a private database. Every other computer opens Zeyto from it over the shop network. This section installs the Zeyto computer.

What the installer puts on the computer

PIECE	WHAT IT IS
Installer for the Zeyto computer	`Zeyto-Setup-<version>.exe`. It installs the server, the database and the desktop shell.
Installer for other PCs	`Zeyto-Client-Setup-<version>.exe`. It installs only the desktop shell. It has no database and no server.
Service ZeytoPostgres	The private database. It listens on this computer only.
Service ZeytoEdge	The Zeyto program. It starts with Windows after a short delay and restarts itself if it stops.
Windows Firewall rule	"Zeyto Edge LAN 8443", so other computers on the shop network can reach Zeyto.
Your data	`C:\ProgramData\Zeyto\`

The installers are not code-signed yet. Windows may therefore warn you when you run one. Download them only from the download page of zeyto.app.

The Start Menu

The installer adds these Start Menu items: **Zeyto ERP**, **Zeyto POS**, **Zeyto LAN URL**, **Restart Zeyto Edge**, **Back up Zeyto data**, **Restore Zeyto data** and **Reset Zeyto login**. Keep them in mind. They are the first things a support person will ask you to open.

1. **Run the installer.** Run `Zeyto-Setup-<version>.exe` on the computer that will stay on in your shop. Accept the defaults.
2. **Open Zeyto ERP.** Use the Start Menu item. The window opens on the Zeyto sign-in or setup page.
3. **Set the administrator password.** On the very first start Zeyto asks you to set the administrator password and to name your company. Write the password down and keep it in a safe place. Zeyto has no default database password, and a forgotten login is repaired with Start Menu ▸ Reset Zeyto login on the Zeyto computer.
4. **Activate the licence.** Open `Settings ▸ License` and activate your licence. A licence is a signed file that says which modules you bought and how many seats (people signed in at once) you get. Past its date Zeyto keeps working for a grace period, then goes read-only. Your data is never deleted.
5. **Find the shop address.** Open Start Menu ▸ **Zeyto LAN URL**. It shows the address that other computers type into a browser, or point the Zeyto Client at. The default port is 8443.

> **WARNING**
> Do not type passwords or backup passphrases into the chat of anyone claiming to be support. Zeyto never stores a backup passphrase. Nobody can open an encrypted backup without it.

Demo mode

If a strip across the top says DEMO / TRAINING MODE, you are working in practice data, not your live books. Switch in `Settings ▸ Data Mode` (Live or Demo). A clean customer install skips the demo data, so you start with an empty set of books.

> Source: `docs/operations/system-map.md`, `docs/operations/installer-and-recovery.md`, `src/Zeyto.Web/src/help/content/start.ts` (pages start.how-zeyto-works, start.backup-sync-and-remote, start.users-and-permissions), `src/Zeyto.Web/src/screens/auth/Setup.tsx`

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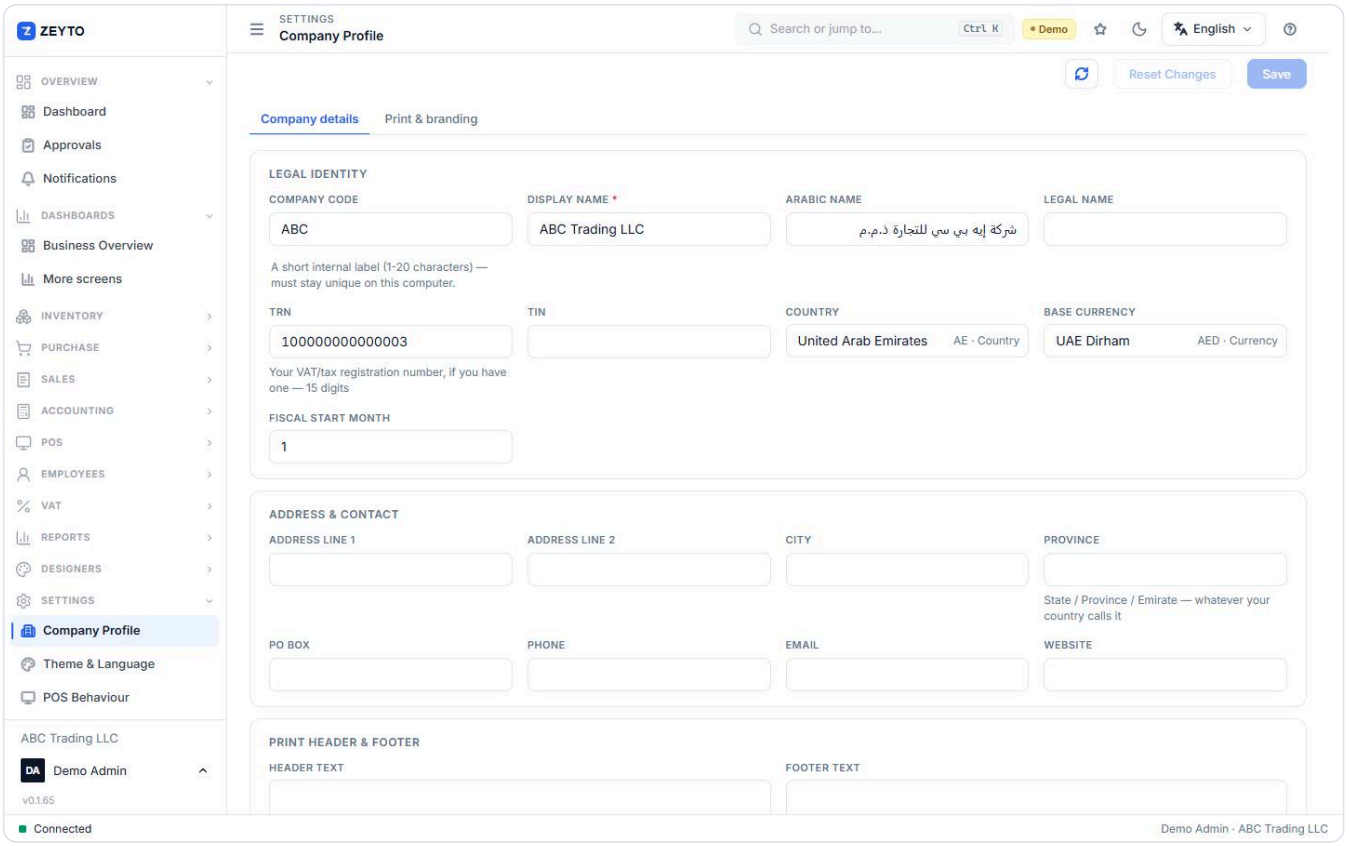
3. Company, fiscal year, date format and numbering

Company Profile

Open `Settings ▸ Company Profile`. The page has two tabs, Company details and Print & branding, and is a set of cards: Legal Identity, Address & Contact, Print Header & Footer, Bank Details, VAT Return Identity, UAE E-Invoice Identity, Print Assets and a Header Preview.

FIELD	WHAT TO ENTER
Company Code	A short internal label of 1 to 20 characters. It must stay unique on this computer.
Display Name	Required. The name you see and print.
Arabic Name, Legal Name	The Arabic name and the registered legal name, for bilingual and tax documents.
TRN	Exactly 15 digits. A TRN-ready tag appears when it is set. Leave it empty if you are not VAT registered.
TIN	The tax identification number used by UAE e-invoicing.
Country, Base Currency	Base Currency is the currency everything posts in. Change it before the first document.
Fiscal Start Month	1 to 12. Used only by the Corporate Tax report. It does not create a fiscal year.
Emirate Code	AZ, DU, SH, AJ, UQ, RK or FU.
Logo, Header Image, Footer Image, Company Stamp, E-Signature	Upload buttons. PNG, JPEG or WebP, up to 1 MB each.

The Save button is available only after you change something. The VAT Return Identity card has its own button, `Save VAT return identity`.



Settings ▸ Company Profile. The Company details tab for the demo company. Legal Identity holds Company Code ABC, Display Name ABC Trading LLC (the starred field is required), the Arabic Name, an empty Legal Name, TRN 100000000000003 with the hint 15 digits, an empty TIN, Country United Arab Emirates, Base Currency UAE Dirham and Fiscal Start Month 1. Address & Contact and Print Header & Footer follow below. Reset Changes and Save at the top right are pale because nothing has been changed yet.

1. **Open the page.** Go to `Settings ▸ Company Profile`.
2. **Fill Legal Identity.** Type the Display Name, Legal Name and TRN. Choose Country and Base Currency.
3. **Fill the contact cards.** Complete Address & Contact and Bank Details so they print on your documents.
4. **Upload your assets.** Use the Logo, Header Image, Footer Image, Company Stamp and E-Signature upload buttons. Open the Header Preview card to see the result.
5. **Save.** Press `Save`. The TRN now prints on every tax invoice.

Fiscal Years

Zeyto posts a document only into an open fiscal year. Open `Settings ▸ Fiscal Years` and press `+ New`. Type a Name, a start date (Starts), an end date (Ends) and set Status to Open. There is no Delete and no check for overlapping years, so enter one year at a time with care. Setting a year to Closed blocks posting, amending and cancelling dated inside it.

If you submit a document dated outside every open year, Zeyto refuses with the message "no open fiscal period covers that date". The same screen also holds tabs for Numbering, Payment Terms, Cost Centers, Job Centers, Project Centers, Bank Accounts and Territories.

Regional: date, time and number format

Open `Settings ▸ Regional`. Choose the date format (dd/mm/yyyy is the default), 12-hour or 24-hour clock, the time zone (Asia/Dubai by default) and number grouping (Western, Indian or none). Only the display changes. Dates are stored as yyyy-mm-dd and timestamps in UTC.

Numbering

Open `Settings ▸ Numbering`. There is a series for each document type, and optionally per branch. Each has a Prefix, Suffix, Separator, Pad, Start No, Next No and Reset Period. "Sample next number" shows the result before you save. A document gets its number when you submit it, so abandoned drafts leave no gaps. An amended document gets /A1 added to its number.

> **TIP**
> Set the numbering before you enter your first document. Changing a prefix later does not renumber documents already posted.

> Source: `src/Zeyto.Web/src/help/content/settings-company.ts` (pages settings.company, settings.fiscal-years, settings.regional, settings.numbering), `src/Zeyto.Edge/Data/migrations/0009-seed-core.sql`, `src/Zeyto.Edge/Data/migrations/0016-currency-numbering.sql`

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4. Chart of accounts, tax codes and payment modes

The chart of accounts

The chart is the list of accounts that every posting lands in. Zeyto ships a chart for the UAE with root groups for Assets, Liabilities, Equity, Income and Expense and a set of ready accounts. You will rarely start from nothing. The accounts used by the examples in this handbook are:

CODE	NAME	ROLE
1000	Cash in Hand	Cash sales and cash payments
1100	Bank, Current Account	The default bank ledger
1200	Trade Receivables	What customers owe
1300	Inventory	Stock at cost
1400	VAT Input	VAT you can claim back
2100	Trade Payables	What you owe suppliers
2200	VAT Output	VAT you collected
3000	Owner's Capital	Capital
3900	Opening Balance Suspense	Holds any difference while opening balances are posted
4000	Sales	Revenue
5000	Cost of Goods Sold	Cost of what you sold

1. **Open the chart.** Go to `Accounting ▸ Chart of Accounts`.

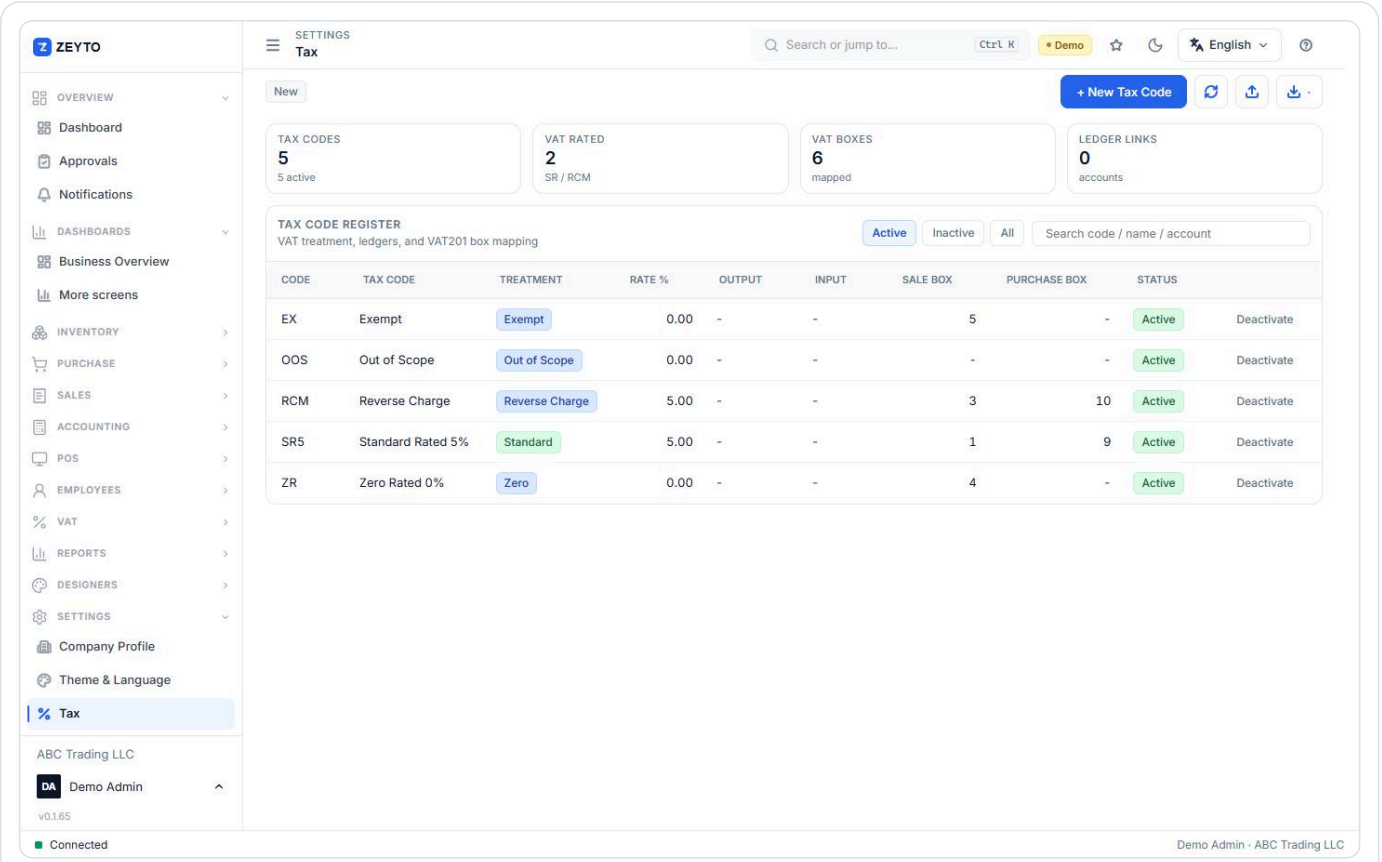
2. **Add what is missing.** Press `+ New Ledger` for a posting account or `+ New Group` for a heading. Choose the Root (Asset, Liability, Equity, Income or Expense) and the Parent Group. Zeyto suggests the next Code, the highest code plus 10.
3. **Choose Kind and Account Type.** Kind is Posting or Group. The Account Type says what the account is for. If two accounts share a type, Zeyto uses the lowest code.
4. **Save.** System accounts are locked. There is no Delete. Untick Active to retire an account.

You can also load many accounts with `Import CSV/XLSX` on this screen, or with the Chart of Accounts card in the Import Center.

Tax codes

Zeyto starts with five tax codes. Open `Settings ▸ Tax` to add more or change accounts and boxes.

CODE	MEANING	VAT RETURN BOX
SR5	Standard Rated 5%	Box 1 (sales), Box 9 (purchases)
ZR	Zero Rated 0%	Box 4
EX	Exempt	Box 5
OOS	Out of Scope	No box
RCM	Reverse Charge (rate 5.00 on the register)	Box 3 (sales), Box 10 (purchases)



Settings ▸ Tax, the Tax Code Register. Five active codes: EX Exempt (sale box 5), OOS Out of Scope (no boxes), RCM Reverse Charge (rate 5.00, sale box 3, purchase box 10), SR5 Standard Rated 5% (sale box 1, purchase box 9) and ZR Zero Rated 0% (sale box 4). The columns are Code, Tax Code, Treatment, Rate %, Output, Input, Sale Box, Purchase Box and Status. The Output and Input ledger columns are empty in this demo, which the Ledger Links tile confirms with 0 accounts. + New Tax Code adds a code.

Payment modes

The Full payment buttons on an invoice (Cash, Card, Bank, Cheque) come from `Settings ▸ Payment Modes`. Each mode posts to an account. Check that the modes you use are active, and that each one posts to the ledger you expect.

> Source: `src/Zeyto.Web/src/help/content/accounting-ledger.ts` (page accounting.chart), `src/Zeyto.Web/src/help/content/start.ts` (page start.vat-basics), `src/Zeyto.Edge/Data/migrations/0009-seed-core.sql`, `src/Zeyto.Edge/Data/migrations/0010-payment-modes.sql`

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5. Warehouses, items, customers and suppliers

These are the lists you pick from on every document. The demo company that Zeyto can ship with shows what a finished set looks like.

REAL EXAMPLE

The seeded demo company

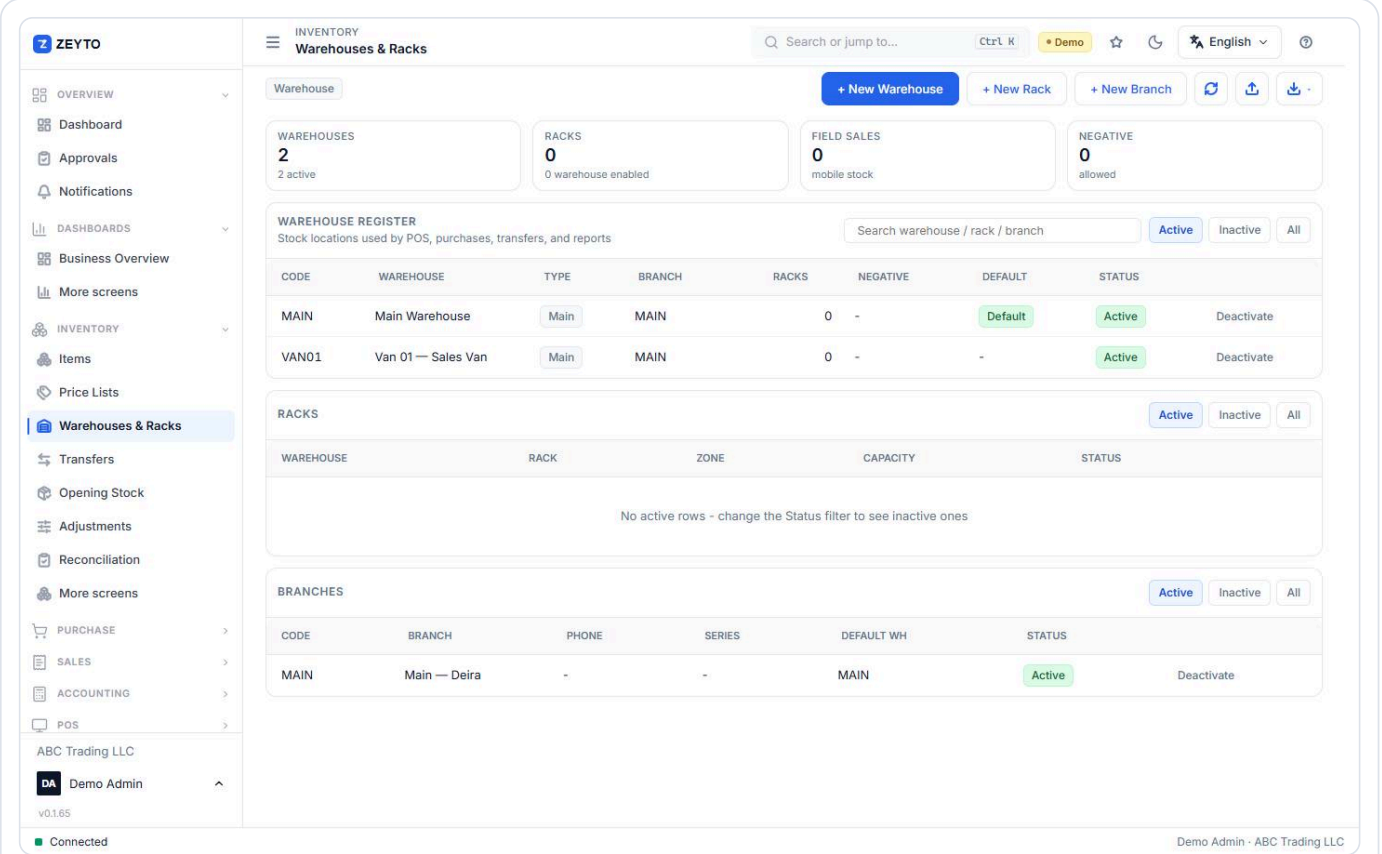
The demo data (applied only when the system is installed as a demo) creates this small company. A clean customer install skips it.

MASTER	SEEDED VALUES
Company	ABC Trading LLC (code ABC), TRN 100000000000003, country AE, base currency AED
Branch	MAIN, Main - Deira
Warehouses	MAIN, Main Warehouse. VAN01, Van 01 - Sales Van
Fiscal year	FY2026, 01/01/2026 to 31/12/2026
Roles	Admin, Sales, Cashier, Accountant
Tax codes	SR5, ZR, EX, OOS, RCM
Item group, price list	General. Retail AED
Items	ITM-0001 Basmati Rice 5kg (retail 18.50). ITM-0002 Delivery Service (service, 15.00). ITM-0003 Smartphone Z10 128GB (serial tracked, retail 1,299.00)
Customers	CUS-0001 Al Noor Mini Mart (credit, 30 days, Dubai). CUS-0002 Walk-in Customer (cash)
Supplier	SUP-0001 Gulf Foodstuff Trading LLC (credit, 30 days, Sharjah)

Warehouses and racks

Open `Inventory ▸ Warehouses & Racks` and press `+ New Warehouse` (or Rack, or Branch). A warehouse has these fields.

FIELD	MEANING
Code	For example WH-001.
Type	Main, Field sales, Transit, Damaged or Consignment.
Name	What people see in pick lists.
Branch	The branch the warehouse belongs to.
Rack Enabled	Tick to track racks inside this warehouse.
Allow Negative	Lets this warehouse go below zero even if Settings ▸ Costing ▸ Negative Stock is Block.
Branch Default	The warehouse used when a document names none.



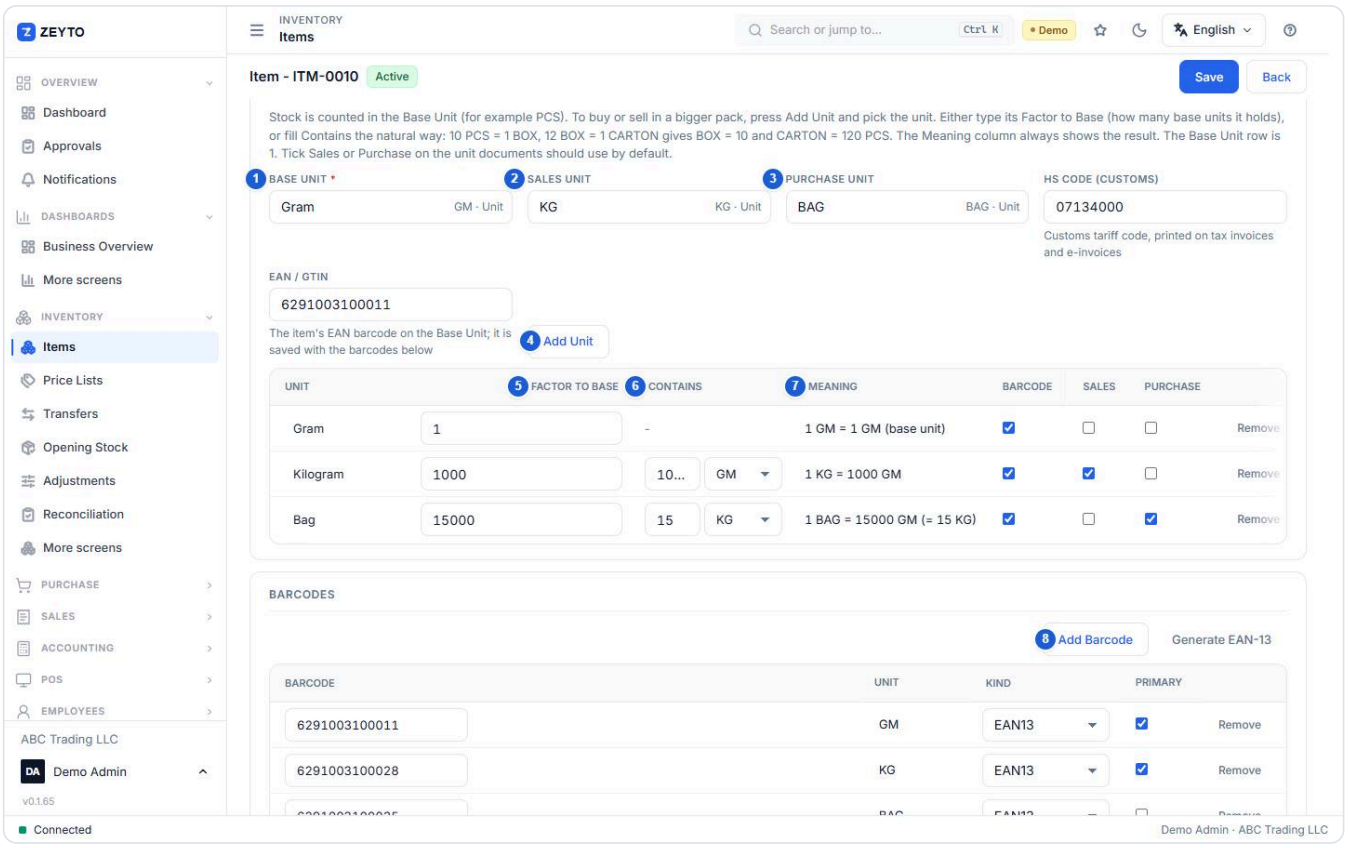
Inventory ▸ Warehouses & Racks. The demo has two warehouses, Main Warehouse (code MAIN, marked Default) and Van 01 - Sales Van (VAN01). Both show Type Main and the branch MAIN, and both are Active. The Racks section is empty, and the Branches section lists MAIN, Main - Deira, with MAIN as its default warehouse. The buttons + New Warehouse, + New Rack and + New Branch are at the top right.

Item masters, then items

Prepare the lists an item points to. Open `Inventory ▸ Masters`. It has four tabs: **Groups** (with a Default VAT Code, nested up to 8 levels), **Categories** (the POS tile), **Brands** and **Units** (with Allow decimals, 0 to 4 decimals). Then open `Inventory ▸ Items`.

1. **Start a new item.** In `Inventory ▸ Items` press `+ New`.
2. **Identify it.** Type the Item Code and Item Name. Choose the Group, Brand and Category.
3. **Choose units and price.** The Base Unit starts as PCS. Type a Min Sales Price if you want one. Use Add Unit with a Factor to Base for a box of 12. The screen also lets you fill Contains instead, the natural way: 10 PCS = 1 BOX and 12 BOX = 1 CARTON gives BOX = 10 and CARTON = 120 PCS. The Meaning column always shows the result.
4. **Check the tax.** In the Tax (VAT) card the VAT Code starts on SR5, or on the group's Default VAT Code. Change it for zero-rated or exempt items.
5. **Add a barcode.** Press Add Barcode. Choose the Kind (for example EAN13), tick Primary, or press `Generate EAN-13`.
6. **Choose tracking.** In the Stock Settings & Balances card tick Track Serial / IMEI for phones and similar. Item types are STOCK, SERVICE and BUNDLE.

7 **Save.** There is no Delete. Set the item to Inactive to retire it. To change many items at once, use `Set VAT Code` on the list, which shows a How many? preview first.



An item with three units. The demo item ITM-0010 MASOOR DAL 15 KG is counted in Gram (the base unit), sold in KG and bought in BAG. Its unit table lists Gram with factor 1, Kilogram with factor 1000 and Bag with factor 15000. The Barcodes card below carries one barcode per unit.

1. BASE UNIT: the unit stock is counted in. It is required. Here it is Gram.
2. SALES UNIT: the unit that sales documents use by default. Here it is KG.
3. PURCHASE UNIT: the unit that purchase documents use by default. Here it is BAG.
4. Add Unit: adds a bigger pack, such as a bag or a carton, to the table.
5. FACTOR TO BASE: how many base units one of this unit holds. Kilogram is 1000 and Bag is 15000.
6. CONTAINS: the other way to say it, in the units you know: a Bag contains 15 KG, and Zeyto works the factor out.
7. MEANING: the result in words, for example 1 BAG = 15000 GM (= 15 KG).
8. Add Barcode: adds a barcode row to the Barcodes card, with its unit and kind.

Customers and suppliers

Customers live in `Sales ▸ Customers` and suppliers in `Purchase ▸ Suppliers`. They are the same kind of record, called a party. A party of kind BOTH is one record that shows under both menus.

1 **Add the customer.** Press `+ New`. Type the Name. Leave Code empty to have Zeyto number it from Settings ▸ Numbering, or type your own.

2 **Add tax and contact data.** Type the TRN (15 digits, a TRN already used by another customer is refused), Phone and Email.

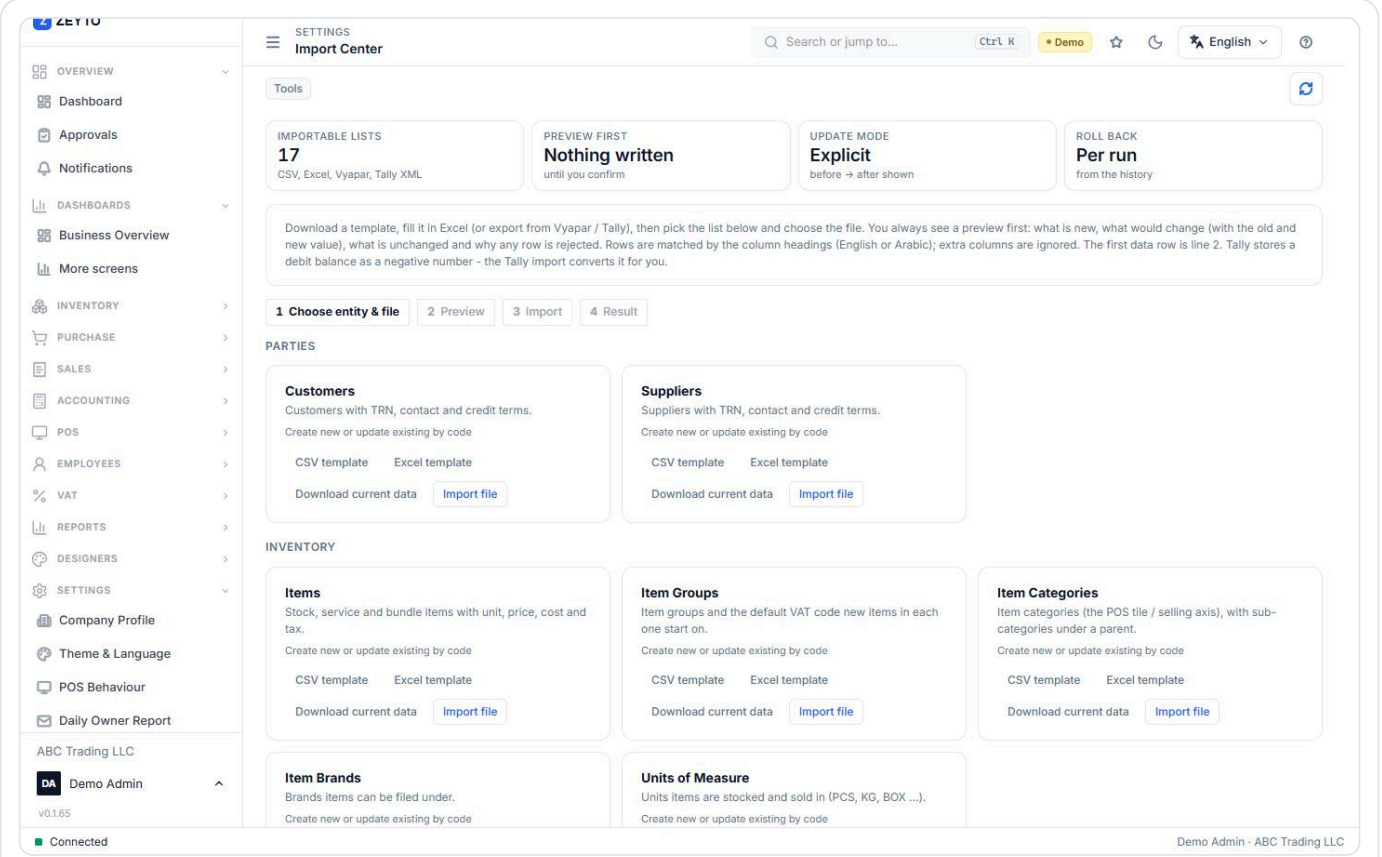
3. **Set credit.** Type Credit Limit (0 means no limit) and Credit Days. Choose Type: Credit or Cash.
4. **Create.** Press `Create`. Code and Kind are fixed once saved. To stop using the customer, set Active to Inactive.

After saving, the form shows a side panel with Outstanding, Overdue, the aging buckets, post-dated cheques on file and the last transaction. Press `Statement` for the full statement or `New Invoice` to start a Sales Invoice for the customer.

Loading many records: the Import Center

Open `Settings ▸ Import Center`. The page shows four steps across the top: Choose entity & file, Preview, Import and Result. The tiles say 17 importable lists and name the sources CSV, Excel, Vyapar and Tally XML. It has a card for Customers, Suppliers, Items, Item Groups, Item Categories, Item Brands, Units of Measure, Chart of Accounts, Payment Terms, Cost Centers, Bank Accounts and Territories, and cards for the opening lists. It never writes anything until you have seen a preview and pressed Import.

1. **Get the template.** On the card press `CSV template` or `Excel template`. The Data sheet has the column headings and one example row starting with EXAMPLE-, which is ignored. The Fields sheet explains every column.
2. **Fill your rows.** The Code column identifies each record. Load Item Groups before Items. A blank VAT Code on an item means the group default, else 5%.
3. **Choose the file.** Press `Import file` on the card. Leave Mode on Create new only. Press Choose file. The reader accepts .csv, .txt and .xlsx but not .xls.
4. **Read the preview.** The counts at the top are New, Update, Unchanged, Duplicate in file and Rejected. The first data row is line 2. A group, unit, VAT code, account or warehouse that does not exist is rejected by name. Import the list it points to first.
5. **Fix the rejects.** Press `Download rejects (XLSX)`. It holds your columns plus Line, Import status and Reason. Fix it and import it again.
6. **Import.** Press the Import button, which names the number of rows, and confirm. A progress bar shows the live counts.



Settings ▸ Import Center, step 1. The four tiles at the top read Importable lists 17 (CSV, Excel, Vyapar, Tally XML), Preview first (Nothing written until you confirm), Update mode (Explicit, before and after shown) and Roll back (Per run, from the history). Under the step labels, the Parties heading holds the Customers and Suppliers cards and the Inventory heading holds Items, Item Groups and Item Categories, with Item Brands and Units of Measure starting below. Each card offers CSV template, Excel template, Download current data and Import file.

> **WARNING**
>
> Do not use the Import CSV/XLSX button on the Customers screen to change existing customers. It overwrites by code and clears every field the sheet does not carry, such as Territory, Salesman, bank details and Payment Terms. Edit existing customers on screen, or use the Import Center with Mode set to Update existing by code.

A finished run stays in the Import history. Press `Roll back` to undo it: records the run created move to the Recycle Bin when nothing has used them yet, otherwise they are made inactive. Records the run only updated are not changed back.

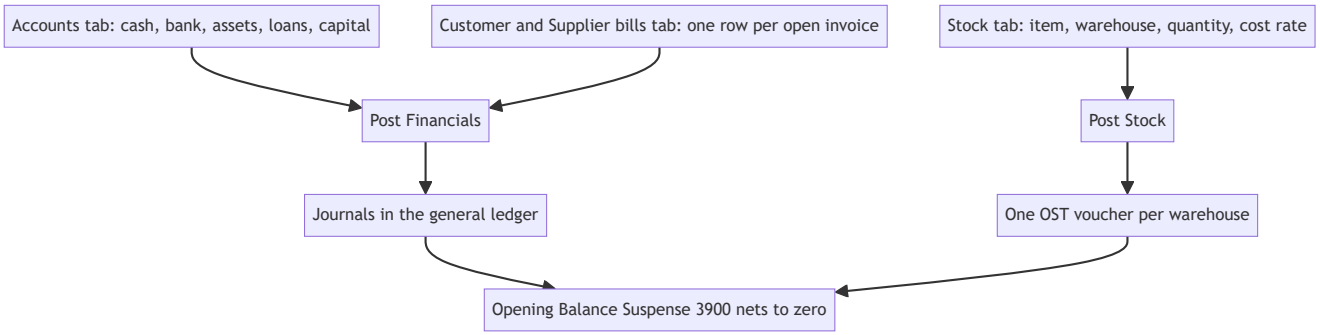
> Source: `src/Zeyto.Web/src/help/content/inventory-masters.ts`, `src/Zeyto.Web/src/help/content/sales-other.ts` (page sales.customers), `src/Zeyto.Web/src/help/content/settings-operations.ts` (page settings.import-center), `src/Zeyto.Edge/Data/migrations/0009-seed-core.sql`, `src/Zeyto.Edge/Data/migrations/0009b-demo-data.demo.sql`, `src/Zeyto.Edge/Data/migrations/0056-demo-parties.demo.sql`

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6. Opening balances

Opening balances are the position you start with. Zeyto needs three kinds. First the balance of each ledger account (cash, bank, fixed assets, loans, capital). Second the open invoices of each customer and supplier, one by one, so that each can later be paid bill by bill. Third the stock, by item and warehouse, with a cost.

Open `Accounting ▸ Openings`. The Opening Header has the Fiscal Year, the Opening Date and the Financial journal. The screen has three tabs: **Accounts**, **Customer / Supplier bills** and **Stock**.



How openings post. Post Financials posts the journals and the customer and supplier bills together. Post Stock makes one Opening Stock document per warehouse. The tile "Difference parked on Opening Balance (3900)" shows what does not balance.

1. **Set the header.** Choose the Fiscal Year and type the Opening Date, usually the last day before the year starts.
2. **Enter the accounts.** On the Accounts tab enter the balance of each posting ledger as Debit or Credit, never both. Do not put a customer or supplier control account here, and do not enter an Inventory balance here if you use the Stock tab.
3. **Enter the bills.** On Customer / Supplier bills enter one row per open invoice: Control Account, party, Invoice no, Invoice date, Due date, Amount and the Dr/Cr side. Dr means the customer owes you. Cr means you owe the supplier.
4. **Enter the stock.** On the Stock tab enter Warehouse, Item, Qty (4 decimals) and Cost Rate (6 decimals), plus batch and serial details for tracked items.
5. **Check the difference.** Look at the tile "Difference parked on Opening Balance (3900)". Open More ▾ and press `Validate`.
6. **Post.** Press `Post Financials`, then `Post Stock`. Each part posts once per fiscal year. If a post stops half way, press `Resume`.

> **WARNING**
> Lines you type are lost if you close the screen before posting. Posting needs a user who can see all branches. To correct a posted opening use Edit openings, Preview changes and Save changes. Cancel all openings asks you to type the fiscal year to confirm.

REAL EXAMPLE

A full opening position that balances to zero (GS_OPEN_01)

The golden test for openings posts the figures below. All amounts are AED.

ITEM	AMOUNT	WHERE YOU ENTER IT
Cash	5,000.00	Accounts tab
Bank	25,000.00	Accounts tab
Fixed assets	12,000.00	Accounts tab
Loan	20,000.00	Accounts tab (account 2700)
Capital	22,191.08	Accounts tab
Receivables: customer C1 1,500.00, C2 2,000.00 not yet due, C3 750.50 over 90 days	4,250.50	Customer / Supplier bills tab
Payables	4,200.00	Customer / Supplier bills tab
Stock	140.58	Stock tab

The stock is 10 units at 12.50, which is 125.00, plus 2.125 units at 7.3333, which is 15.58. That is where the quantity with 4 decimals matters. Total 140.58.

ACCOUNT	DR	CR
1000 Cash in Hand	5,000.00	
1100 Bank, Current Account	25,000.00	
Fixed assets	12,000.00	
1200 Trade Receivables	4,250.50	
1300 Inventory	140.58	
2700 Loan		20,000.00
2100 Trade Payables		4,200.00
Capital		22,191.08
Total	**46,391.08**	**46,391.08**

Assets are 46,391.08, liabilities are 24,200.00 and capital is 22,191.08. The trial balance is zero and 3900 Opening Balance Suspense nets to 0.00. If the opening position does not balance, the difference sits on 3900 until you find what is missing.

REAL EXAMPLE

The first receipt settles opening bills oldest first (GS_OPEN_04)

A customer has two opening bills: INV-101 for 1,000.00 and INV-140 for 500.00. The customer pays 1,200.00. Bill-wise allocation settles the oldest first.

BILL	OPEN BEFORE	SETTLED	OPEN AFTER
INV-101	1,000.00	1,000.00	0.00
INV-140	500.00	200.00	300.00
Total	**1,500.00**	**1,200.00**	**300.00**

This is why you enter opening bills one by one and not as a single total: each bill can then be paid, aged and shown on the customer statement.

REAL EXAMPLE

Foreign currency openings (GS_OPEN_06)

An opening balance in US dollars is posted in AED at the rate used. USD 10,000 at 3.6725 is AED 36,725.00. USD 1,000 is AED 3,672.50.

The Import Center can also load openings. Press `Open Import Center` in More ▾, or use the Opening - Accounts, Opening - Customer / Supplier Bills and Opening - Stock cards. Importing an opening file never cancels openings already posted. Reconciliation downloads as Excel, PDF or CSV.

> Source: `src/Zeyto.Web/src/help/content/accounting-ledger.ts` (page accounting.openings), `src/Zeyto.Web/src/help/content/settings-operations.ts`, `tests/Zeyto.Tests/GoldenOpeningBalanceTests.cs`

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7. Your first backup

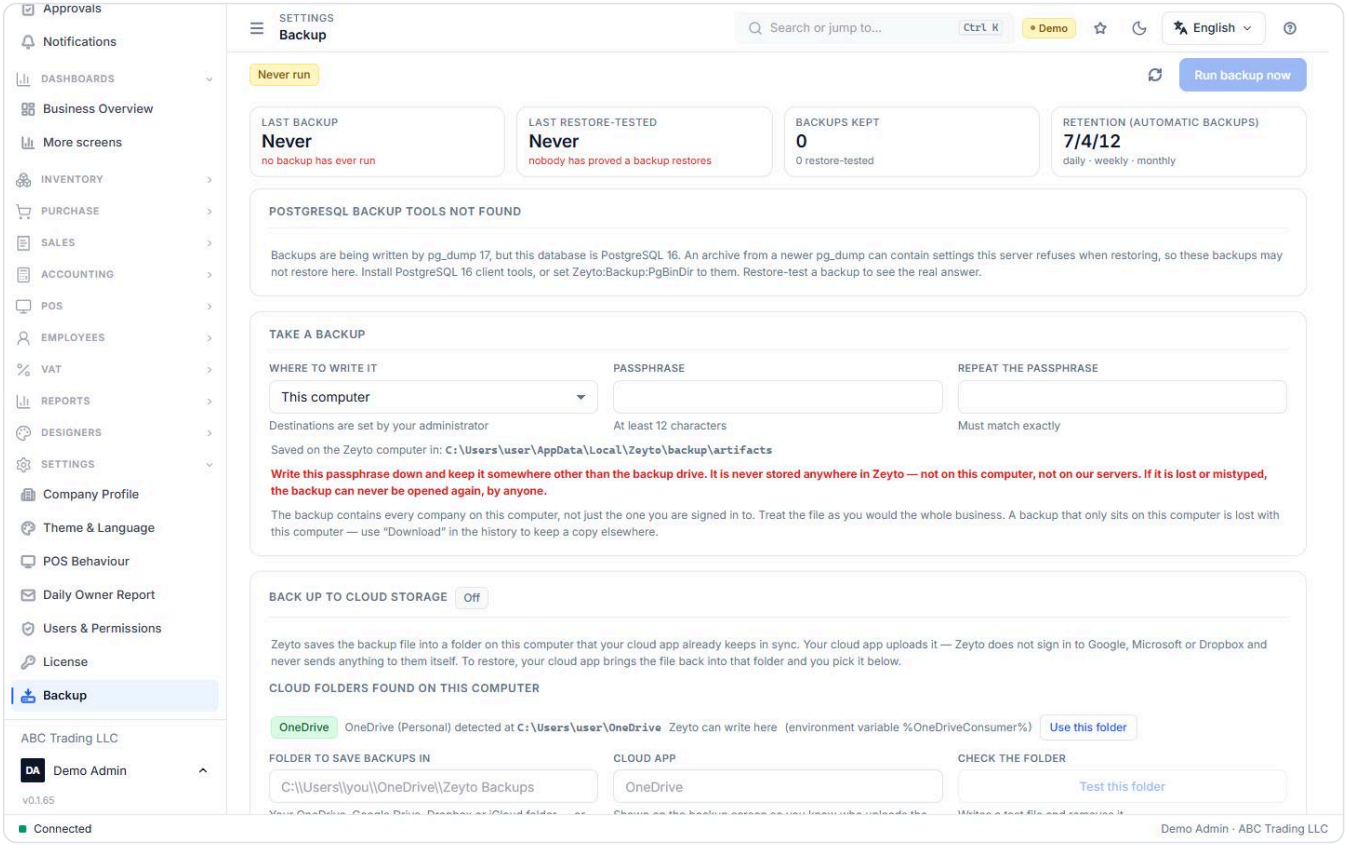
Take a backup before you start real work, and turn on the daily one. Your data lives on one computer. A backup is the safety net against a failed disk, a stolen computer or a mistake. Open `Settings ▸ Backup`.

1. **Turn on the daily backup.** In the card "Scheduled backup (automatic)" tick **Run a daily backup automatically**. Choose **Where to write it** (a local disk, an external drive or your cloud folder) and the **Daily time** in 24-hour format.
2. **Choose a restore test.** Set **Restore-test after writing** to Never, The monthly copy or Every backup. A test proves the backup can restore.
3. **Save the schedule.** Press `Save schedule`. It applies within a minute.
4. **Take a backup now.** Under Take a backup choose where to write it and type a passphrase of at least 12 characters, twice. Write the passphrase down and keep it away from the backup drive. Zeyto never stores it.
5. **Run it.** Press `Run backup now`. The backup appears in the history marked Not restore-tested.

6. **Keep a copy elsewhere.** Press `Download` on that row. A backup that only sits on the Zeyto computer is lost with it.

7. **Prove it works.** Press `Restore…` on the backup, type the passphrase and press `Check this backup`. It restores into a temporary copy, changes nothing and marks the backup Restore-tested.

Four tiles at the top of the Backup screen tell you where you stand: Last backup, Last restore-tested, Backups kept and Retention (automatic backups), which shows 7/4/12 labelled daily, weekly and monthly. A chip at the top left reads Never run until the first backup exists.



Settings ▸ Backup on a new install. Nothing has run yet: Last backup Never, Last restore-tested Never, Backups kept 0. The Take a backup card has Where to write it (This computer, with the note that destinations are set by your administrator), Passphrase (at least 12 characters) and Repeat the passphrase, followed by a red reminder to keep the passphrase somewhere else. Run backup now at the top right is shown pale. Below is the Back up to cloud storage card, Off, with the OneDrive folder it found on this computer. The warning card named PostgreSQL backup tools not found appears only because this test machine runs a PostgreSQL 16 database with version 17 backup tools; it is not part of a normal first view.

> **WARNING**
> "Restore over current data" replaces everything, every company on the computer. To use it, type RESTORE. Zeyto makes a safety copy of today's data first. Anything entered after the backup was taken is not in it. Backups written by the automatic schedule to a disk are not encrypted, so keep that folder on a disk only trusted people can read.

A backup holds every company on the computer, not only the one you are signed in to. The default folder is `Documents\Zeyto Backups` and the files end in `.pgdump`. You can also use the Start Menu items Back up Zeyto data and Restore Zeyto data.

> Source: `src/Zeyto.Web/src/help/content/start.ts` (page start.backup-sync-and-remote), `src/Zeyto.Web/src/help/content/settings-system.ts` (page settings.backup), `docs/operations/installer-and-recovery.md`

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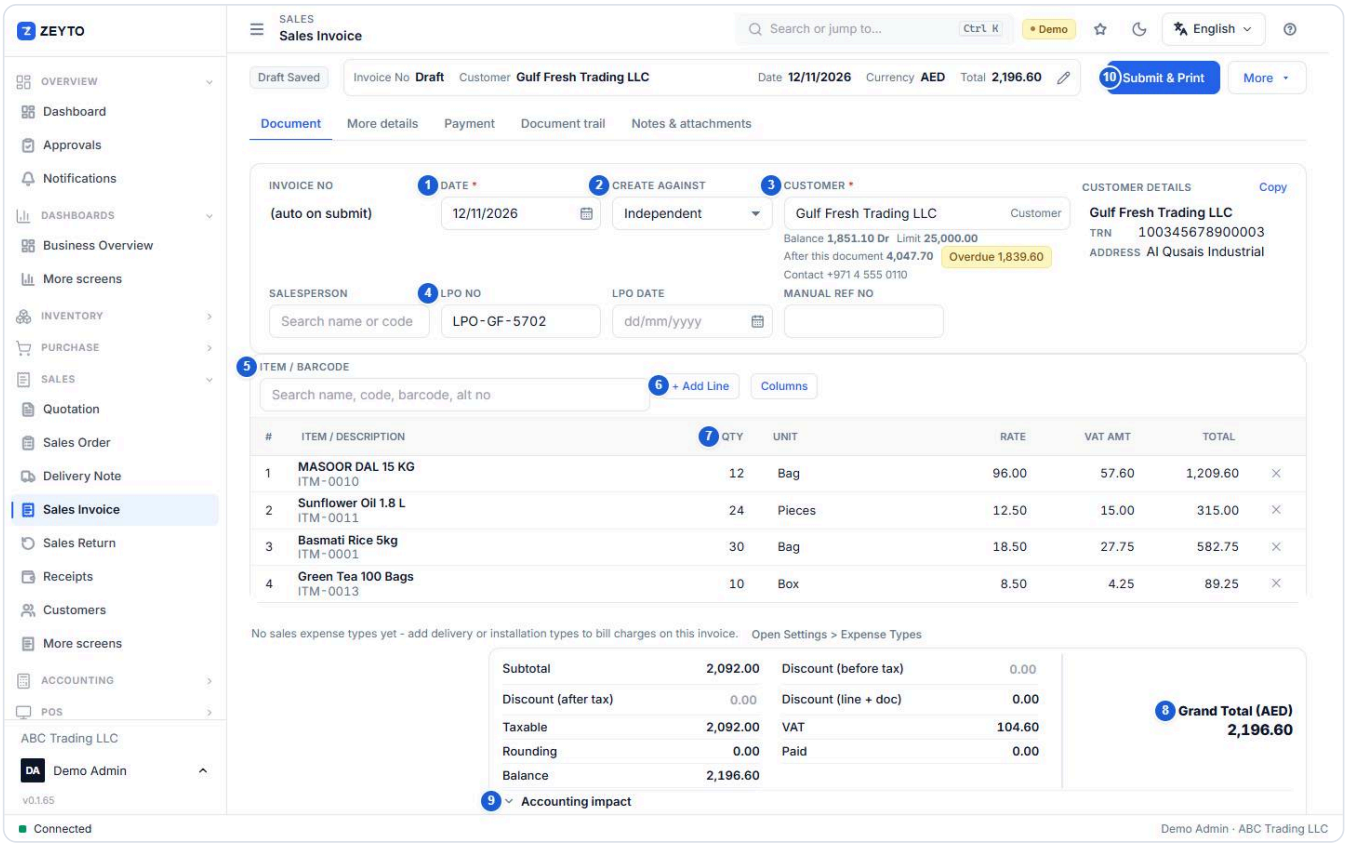
8. Your first invoice, end to end

Now sell something. The example below uses the numbers of the golden posting test, so you can compare the ledgers to what you see.

Sales Invoice Submit & Print More ▾

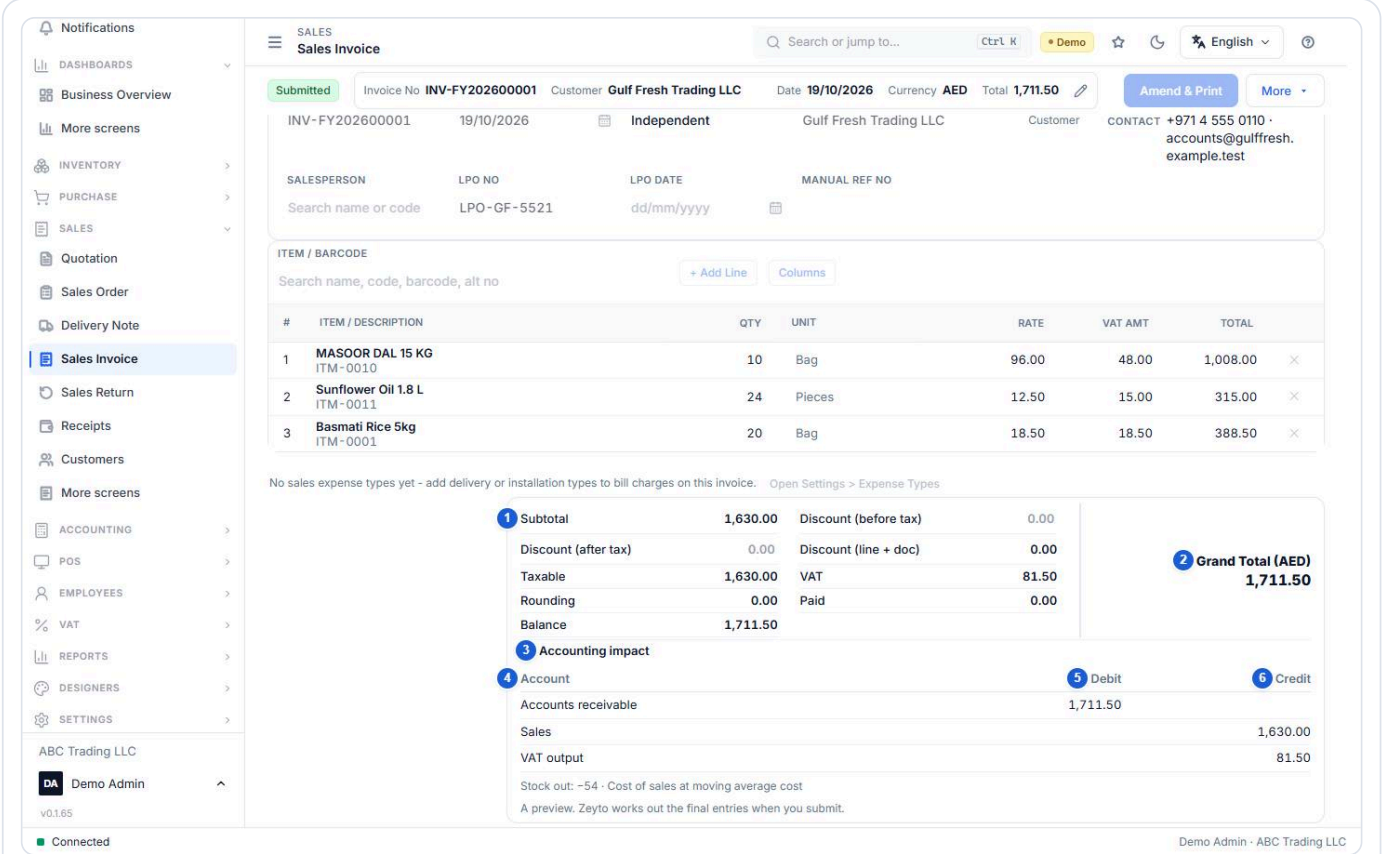
Invoice No	(auto on submit)	Date	dd/mm/yyyy
Customer	F3, pick one	Create against	Independent
Item / Barcode (F4)			
Item A	10	18.50	SR5
Item B	3	15.00	SR5
Payment tab. Full payment: Cash. Paid 241.50. Balance 0.00			

1. **Open the screen.** Go to `Sales ▸ Sales Invoice` and press `+ New Sales Invoice`.
2. **Pick the customer.** Press `F3` and pick the customer if you know who it is. A sale paid in full can go without one.
3. **Add the items.** Press `F4`, type an item code, name or barcode and click the item. A scanner types the barcode and presses Enter. Set the quantity.
4. **Take payment.** The form has five tabs: Document, More details, Payment, Document trail and Notes & attachments. Open the Payment tab and, under "Full payment:", press the button for how the customer pays, such as Cash. One payment row appears with the full total. Check that Paid shows the same amount. A card, bank or cheque row may need a REF.
5. **Look before you post.** Open "Accounting impact", the collapsed line under the totals. It shows what Submit will do.
6. **Submit.** Press `Submit & Print`, the blue button at the top right. The invoice gets its number, for example INV-00001, and with the usual setting the print page opens. The demo company in the screenshots has the fiscal year in its prefix, so its numbers read INV-FY202600001 and so on.



The sales invoice form, filled in as a draft. A demo draft for Gulf Fresh Trading LLC with four lines. The strip at the top reads Draft Saved, Invoice No Draft, the customer, the date, the currency AED and the total 2,196.60. Under the customer name Zeyto shows Balance 1,851.10 Dr, Limit 25,000.00, After this document 4,047.70 and an Overdue 1,839.60 tag. Totals read Subtotal 2,092.00, VAT 104.60 and Grand Total 2,196.60.

1. DATE: the invoice date. It is required, and it decides which fiscal year and VAT period the invoice falls in.
2. CREATE AGAINST: shows Independent here, an invoice that is not made from an earlier document.
3. CUSTOMER: required. Once picked, the customer's balance, limit and overdue amount show underneath, and the TRN and address on the right.
4. LPO NO: the customer's purchase order number, here LPO-GF-5702. Posting Controls can make it compulsory.
5. ITEM / BARCODE: type a name, code or barcode, or scan one, and pick the item to add a line.
6. + Add Line: adds a blank line to the grid.
7. QTY / UNIT / RATE / TOTAL: the line grid. Each line shows the item and its code, the quantity and unit, the rate, the VAT amount and the line total.
8. Grand Total (AED): the whole invoice including VAT, 2,196.60 here.
9. Accounting impact: a collapsed section. Open it to see what Submit will post.
10. Submit & Print: submits the invoice, gives it its number and then opens the print page.



The same screen after Submit. Demo invoice INV-FY202600001 for Gulf Fresh Trading LLC, dated 19/10/2026, with the chip Submitted. The fields are read-only and the main button now reads Amend & Print in a paler blue. The Accounting impact table is open. Under the money lines the screen adds the note Stock out: -54, cost of sales at moving average cost, and its own line: A preview. Zeyto works out the final entries when you submit.

1. Subtotal, VAT and Balance block: Subtotal 1,630.00, VAT 81.50, Paid 0.00 and Balance 1,711.50.
2. Grand Total (AED): 1,711.50.
3. Accounting impact: the heading of the section, shown open on this submitted invoice.
4. ACCOUNT column: the ledger the line goes to: Accounts receivable, Sales and VAT output.
5. DEBIT column: Accounts receivable 1,711.50.
6. CREDIT column: Sales 1,630.00 and VAT output 81.50.

The impact table lists the money lines by account name and adds a one-line stock note about cost. The cost of goods sold and inventory lines of the journal below are in the Posting Trail. In the default short menu the Posting Trail opens from Reports ▸ More screens, or press `Ctrl+K` and type its name.

REAL EXAMPLE

A cash sale, step by step (GS_INV_01)

Before the sale, stock was bought by purchase invoice: item A 20 units at 10.00 and item B 10 units at 8.00, costed at moving average. The sale is 10 units of item A at 18.50 and 3 units of item B at 15.00, paid in cash. The golden test calls the items Golden Stock Item A and B.

LINE	QTY	PRICE	NET	VAT 5%
Item A	10	18.50	185.00	9.25
Item B	3	15.00	45.00	2.25
Total			**230.00**	**11.50**

The gross is 241.50 and the golden test numbers the invoice INV-00001. Cost of goods sold is 10 × 10.00 plus 3 × 8.00, which is 124.00. The journal:

ACCOUNT	DR	CR
1000 Cash in Hand	241.50	
4000 Sales		230.00
2200 VAT Output		11.50
5000 Cost of Goods Sold	124.00	
1300 Inventory		124.00
Total	**365.50**	**365.50**

Stock after the sale: item A has 10 left at 10.00, worth 100.00. Item B has 7 left at 8.00, worth 56.00. The VAT ledger gets one OUTPUT row for 230.00 taxable and 11.50 VAT in box 1.

REAL EXAMPLE

The same kind of sale on credit (GS_INV_02)

You sell 2 units of item A at 18.50 and the customer pays nothing now. Net is 37.00, VAT is 1.85 and the customer owes 38.85. The cost of the two units is 20.00.

ACCOUNT	DR	CR
1200 Trade Receivables	38.85	
4000 Sales		37.00
2200 VAT Output		1.85
5000 Cost of Goods Sold	20.00	
1300 Inventory		20.00
Total	**58.85**	**58.85**

A credit sale needs a customer. Check the Payment Term, which sets the due date. Record the customer's payment later in `Sales ▸ Receipts`.

REAL EXAMPLE

VAT rounding (GS_INV_04)

5 units at 18.50 make 92.50 net. VAT at 5% is 4.625, which rounds half up to 4.63. The gross is 97.13.

Check the result

Open `Reports ▸ Posting Trail` (in the short menu it is under Reports ▸ More screens), type the invoice number in Document number and press Run. It lists every ledger line the invoice wrote. Open the Dashboard to see the sale in today's figures. The invoice's More ▾ menu has Postings (the Posting Trail for this document) and Activity (who did what).

RULE

To correct the invoice, open it from the register, change what is wrong and press Amend. On a submitted sales invoice the main button reads Amend & Print. The number becomes INV-00001/A1 (INV-FY202600006/A1 in the demo) and the status reads Amended. To remove it, press Cancel in More ▾. A reversal is posted. Both are refused while a receipt applied to the invoice or a return made from it exists, and when the date is in a VAT period you have already filed.

TIP

If Negative Stock in Settings ▸ Costing is Block and the warehouse does not allow negative stock, Zeyto refuses to sell more than is on hand. It starts on Warn, which posts anyway and warns. Credit Control and Posting Controls can also question a Submit.

> Source: `src/Zeyto.Web/src/help/content/sales-documents.ts` (page sales.invoices-new), `tests/Zeyto.Tests/GoldenPostingTests.cs` (GS_INV_01, GS_INV_02, GS_INV_04), `src/Zeyto.Web/src/help/content/start.ts` (page start.documents-lifecycle)

9. Check yourself and common mistakes

Check yourself

1. Open `Settings ▸ Company Profile`. The TRN shows the TRN-ready tag and has exactly 15 digits.
2. Open `Settings ▸ Fiscal Years`. One year is Open and covers today's date.
3. Open the Trial Balance report. Debits equal credits. After your openings, account 3900 should be zero.
4. Open `Reports ▸ Party Statement` for one customer. Its opening bills add up to what you entered.
5. Open a stock report. Quantity times cost for each item and warehouse matches the opening stock you entered.
6. Submit a test invoice. In Reports ▸ Posting Trail the lines you see are the ones in section 8: receivable or cash, sales, VAT output, cost of goods sold and inventory.
7. Open `Settings ▸ Backup`. The history shows at least one backup, and one marked Restore-tested.
8. Open the VAT Return Worksheet for the period. The invoice you just posted appears in box 1.

Common mistakes

SYMPTOM	CAUSE	FIX
Submit says no open fiscal period covers that date	No fiscal year is Open for the document date.	Add or open a year in Settings ▸ Fiscal Years.
TRN is refused	It is not exactly 15 digits, or another customer already has it.	Correct the digits. Check the customer list for a duplicate.
Items load with the wrong VAT	The VAT Code on the import row was blank, so the group default or 5% was used.	Set the VAT Code in the file, or use Set VAT Code on the Items list.
Import rejects every item	The item groups it refers to are not loaded yet.	Import Item Groups first, then Items.
Excel file is not read	It is an old .xls file, or the Excel template header block confuses the reader.	Save as .xlsx or use the CSV template.
Customer import wiped fields	The screen's own Import CSV/XLSX overwrites by code and clears missing fields.	Use the Import Center in Update mode, or edit on screen.
Opening balances are off	Something is missing, so the difference sits on 3900.	Open the tile "Difference parked on Opening Balance (3900)" and find the missing line.
Inventory counted twice	An Inventory balance was entered on the Accounts tab and the Stock tab.	Use the Stock tab only for stock.
Opening lines vanished	The screen was closed before posting.	Re-enter, then press Post Financials and Post Stock.
Payment amount reads as nothing	An amount such as 1,050.00 was typed with a comma.	Retype without the comma, or use a Full payment button.
Print is greyed out	The invoice is not submitted.	Press Submit.

SYMPTOM	CAUSE	FIX
A backup is of no use	It was never restore-tested, or the passphrase is lost.	Press Check this backup. Keep the passphrase safe.
Licence slot wasted after a move	The old computer was released before the restore.	Restore first, then release the old computer and activate the new one.

> Source: `src/Zeyto.Web/src/help/content/settings-company.ts`, `src/Zeyto.Web/src/help/content/settings-operations.ts`, `src/Zeyto.Web/src/help/content/accounting-ledger.ts`, `src/Zeyto.Web/src/help/content/sales-documents.ts`, `src/Zeyto.Web/src/help/content/start.ts`

DAILY WORK

People, payroll and commission

After this chapter you can keep an employee file, run a month of payroll from Calculate to Pay, give a staff advance and watch it being recovered, set up sales commission and pay it, and you will know exactly what Zeyto does not do for you yet. It also explains what "charges" means in Zeyto, because that word is not about people.

1. The big picture

Three things in Zeyto touch the money you pay to people, or sound as if they do. They live in different places and post in different ways, so it helps to see them side by side before you open any screen.

Employees and Payroll

The `Employees` group in the sidebar: Employees, Compliance, Payroll, Advances and WPS. A master list of staff, a monthly payroll run, staff advances and a WPS file. Payroll posts only when you press Approve Payroll and again when you press Pay Payroll.

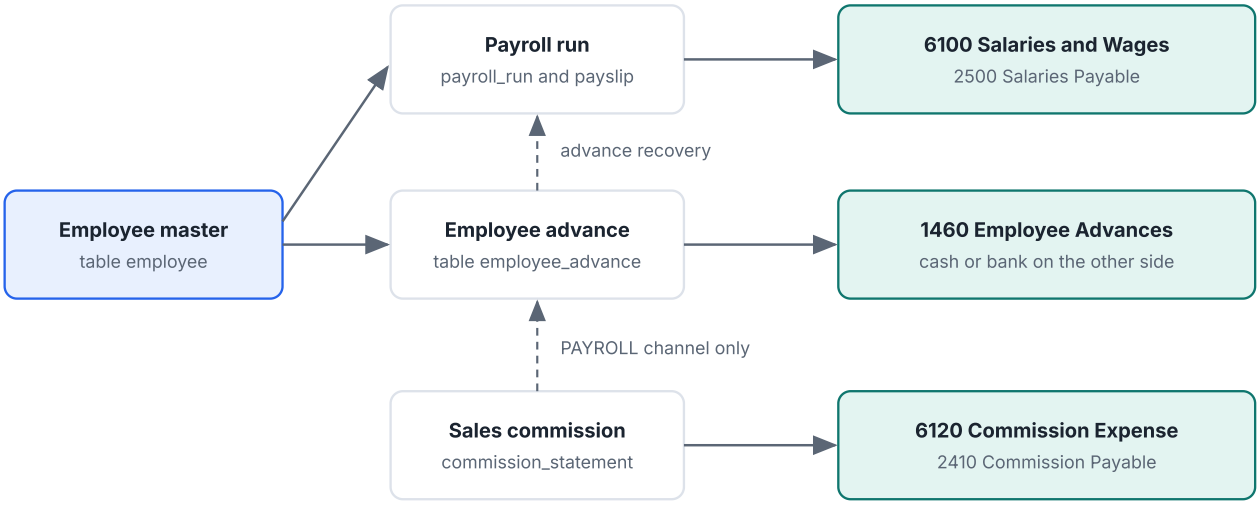
Sales commission

The `Sales ▸ Commission` and `Sales ▸ My Commission` screens, plus `Settings ▸ Commission`. Commission is worked out from sales and receipts, kept in statements, and paid out on its own or through payroll.

Charges

Freight, customs, delivery and similar lines on purchase and sales invoices. They have nothing to do with staff. They are covered in section 7 so you can tell the two ideas apart.

The Employees group belongs to a licensed feature called Payroll. If your licence does not include it, the group shows an "Add-on" tag and an upgrade sheet. Every screen also needs the matching permission. The permission rules are listed in section 3.



How the people features connect. The employee master feeds payroll and advances. Advances are recovered inside payroll. Commission has its own statements and its own accounts, and joins payroll only when you choose the PAYROLL channel.

RULE

Calculating payroll posts nothing. Approve Payroll posts one journal. Pay Payroll posts the cash side. A staff advance posts the moment you press Post Advance and cannot be edited or deleted afterwards.

Source: `src/Zeyto.Web/src/help/content/employees.ts`, `src/Zeyto.Edge/Api/PayrollApi.cs`, `src/Zeyto.Web/src/screens/nav.ts`, `src/Zeyto.Contracts/Entitlements.cs`

2. The employee file

Open `Employees ▸ Employees`. The screen has three tabs: **Employees**, **Departments** and **Designations**. Create departments and designations first if you want to pick them on the employee form. The list is the first thing you see. Press `+ New` to add a person.

Fields on the employee form

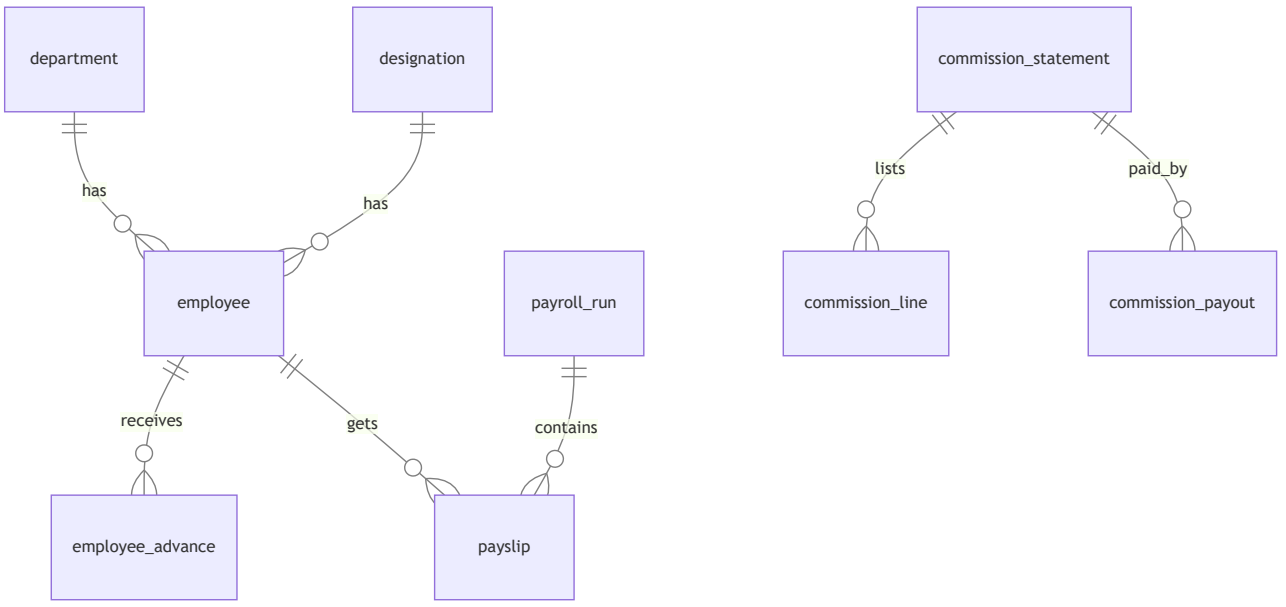
FIELD	WHAT TO ENTER
Code	Your own code. The help shows the pattern EMP-001.
Name, Arabic Name	Name is required. The Arabic name is for bilingual documents.
Branch, Department, Designation	Pick from your lists.
Linked App User	The Zeyto login this person uses, if any.
MOHRE Person Code	The ministry person code. A payslip needs it to be ready for the WPS file.
Joined On	Date of joining.
Emirates ID, Passport No	Each has its own Expiry date field.
Visa Expiry, Labour Card Expiry	Dates only. They feed the compliance warnings.
IBAN	The bank account for the salary. A payslip needs it to be ready for the WPS file.
Basic Salary, Housing, Transport, Other Allowance	The four parts of the monthly pay. Gross is the sum of the four.
Status	Active or Inactive. There is no Delete. Inactive people are skipped by payroll.

1. **Open the screen.** Go to `Employees ▸ Employees`.
2. **Add the person.** Press `+ New`, type the Code and Name, and pick the Branch.
3. **Enter the pay.** Fill Basic Salary, Housing, Transport and Other Allowance. Leave unused parts empty.
4. **Enter the documents.** Fill the Emirates ID, Passport, Visa and Labour Card expiry dates so Compliance can warn you in time. Fill the IBAN and the MOHRE Person Code if you will use the WPS file.

5 **Save.** The person is picked up by the next payroll calculation as long as Status is Active. A new salary counts from the next time you press Calculate on the Payroll Run screen.

Compliance warnings

The `Employees ▸ Compliance` screen lists documents that are expiring. It warns at 90 days. The list on the Employees screen flags a document at 60 days, so the two screens use different numbers, and that is how the product works today. The report **ID / Visa Expiry Alerts** gives the same information as a report you can print.



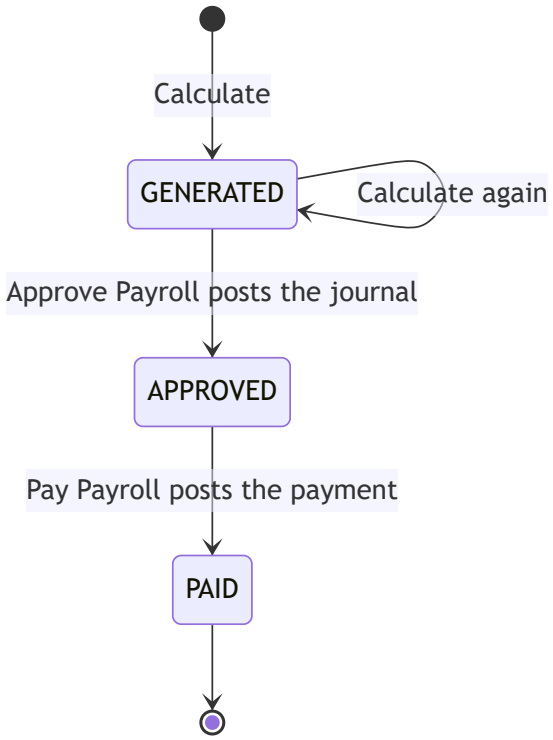
The records behind the screens. One payroll_run holds one payslip per active employee. A payslip stores gross, deductions, net and a lines column with the detail. The commission tables sit apart from payroll: statements, lines and payouts.

> **TIP**
> A salesperson's Zeyto login and the Employee record are two separate things. The Linked App User field joins them. Fill it for every salesperson who earns commission: the screen Sales ▸ My Commission says so when a login is not linked to an employee, and asks the office to link it in Employees. The commission schemes also name their salespeople from the employee list.

> Source: `src/Zeyto.Web/src/help/content/employees.ts`, `src/Zeyto.Edge/Data/migrations/0007-hr.sql`, `src/Zeyto.Edge/Data/migrations/0013-hr-master-extensions.sql`

3. A month of payroll

Payroll is a run per month. The sidebar entry is `Employees ▸ Payroll` and the screen is titled Payroll Run. The run goes through three states that you control with buttons. The table `payroll_run` allows only one run for a company, period and branch, so a month cannot be run twice.



Payroll run states. The database also allows DRAFT and CANCELLED, but the screens move only through GENERATED, APPROVED and PAID. Calculate is refused once the run is APPROVED or PAID, and there is no Cancel on this screen.

What the calculation does

- Gross for each active employee is Basic Salary plus Housing plus Transport plus Other Allowance. If commission is paid through payroll, the approved commission is added to gross.
- The only deduction Zeyto knows is the recovery of staff advances. For each employee Zeyto takes the smaller of the advance balance and the monthly recovery. The monthly recovery is the advance's own Monthly Recovery, or its amount divided by Installments, or the whole balance if neither is set. An advance whose Recovery Start is after the payroll month is left alone. The total deduction can never be more than gross.
- Net is gross minus deductions.
- Calculate creates the run and a payslip for each person. It posts nothing. The amounts, the advance recovery and the WPS flag are fixed at that moment.

Permissions

ACTION	PERMISSION NEEDED
Calculate	`employees.create`
Approve Payroll	`employees.submit`
Pay Payroll	`employees.submit`
Generate WPS SIF	`employees.export`

If Zeyto says a permission is required, an administrator can grant it in `Settings ▸ Users & Permissions`.

1. **Open Payroll.** Go to `Employees ▸ Payroll`. Choose the **Payroll Month**. It starts on the current month.

2. **Calculate.** Press `Calculate`. Every active employee gets a payslip and the status shows GENERATED. Check Gross, Deductions and Net for each person. In the WPS column, MISSING means no MOHRE code, no IBAN or no net pay.

3. **Correct if needed.** Fix the employee record or the advance and press Calculate again. You confirm first, because the payslips are replaced.

4. **Approve.** Press `Approve Payroll`. It posts at once, with no confirmation box. The field Accrual journal shows the journal number. Zeyto also reduces each advance balance, oldest advance first.

5. **Pay.** When your bank has paid, choose a **Payment Bank** or keep the default, press `Pay Payroll` and confirm the number of people and the total. The field Payment journal shows the number.

> **WARNING**
>
> Pay Payroll only records the payment in your books. It does not send money to anybody. Both journals carry the date of the day you press the button, not the end of the payroll month, so approve and pay in the month where you want the cost and the payment to appear.

ILLUSTRATIVE FIGURES

One month, two employees, one advance being recovered

The figures are made up. Every journal line follows the rules in the payroll code. The currency is AED.

EMPLOYEE	BASIC	HOUSING	TRANSPORT	OTHER	GROSS	ADVANCE RECOVERY	NET
Employee A	5,000.00	1,500.00	500.00	0.00	7,000.00	0.00	7,000.00
Employee B	3,000.00	1,000.00	300.00	200.00	4,500.00	300.00	4,200.00
Total	**8,000.00**	**2,500.00**	**800.00**	**200.00**	**11,500.00**	**300.00**	**11,200.00**

Employee B had an advance of 1,200.00 over 4 installments, so the recovery is 1,200.00 divided by 4, which is 300.00. After approval the advance balance is 900.00.

Approve Payroll posts this journal voucher:

ACCOUNT	DR	CR
6100 Salaries & Wages	11,500.00	
2500 Salaries Payable		11,200.00
1460 Employee Advances		300.00
Total	**11,500.00**	**11,500.00**

Pay Payroll posts the second journal voucher:

ACCOUNT	DR	CR
2500 Salaries Payable	11,200.00	
1100 Bank, Current Account		11,200.00
Total	**11,200.00**	**11,200.00**

After both steps account 2500 is zero. Between Approve and Pay it shows what you still owe your staff.

RULE

Both journals go to your first active branch in code order, whatever branch the employees belong to, and use your company base currency. That is why the report **Salary Cost by Branch** shows all the cost in one group with a dash for the branch name. No VAT and no stock are touched by payroll.

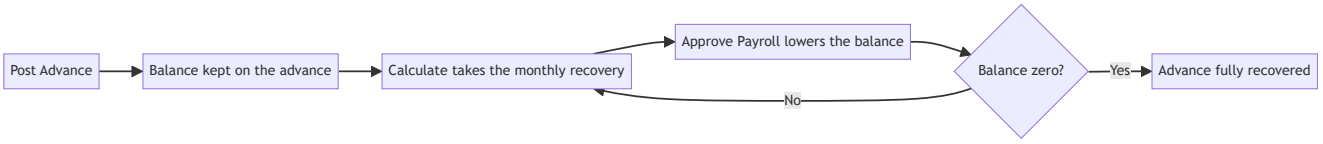
> Source: `src/Zeyto.Edge/Api/PayrollApi.cs`, `src/Zeyto.Edge/Security/PermissionCatalog.cs`, `src/Zeyto.Web/src/help/content/employees.ts`, `src/Zeyto.Edge/Data/migrations/0007-hr.sql`

4. Staff advances

An advance is money you give an employee and take back from later salaries. The list is `Employees ▸ Advances` and the form is New Advance. There is no draft and no edit. You fill the form and press `Post Advance`, and the journal is posted at once. A message shows the journal number.

FIELD	MEANING
Employee	Required. Active employees only.
Date	The date of the advance and of its journal. It starts as today.
Amount	The money handed over. It must be above zero.
Paid Via	Cash or Bank.
Bank Account	Appears and is required when Paid Via is Bank.
Recovery Start	The first payroll month that takes money back.
Monthly Recovery	The amount to take each month. Optional.
Installments	Number of months. Zeyto divides the Amount by it when Monthly Recovery is empty.
Reason	A note.

Leave both Monthly Recovery and Installments empty to take the whole balance in one payroll.



Life of an advance. Each month the recovery repeats until the balance reaches zero. The report Employee Advance Balances shows what is still open. The money comes back when a run is approved, not when it is calculated.

ILLUSTRATIVE FIGURES

Giving a 1,200.00 cash advance

Employee B asks for 1,200.00 in cash, to be recovered over 4 months.

ACCOUNT	DR	CR
1460 Employee Advances	1,200.00	
1000 Cash in Hand		1,200.00
Total	**1,200.00**	**1,200.00**

If Paid Via is Bank, the credit goes to the ledger of the bank account you picked instead of 1000. Month by month, each payroll approval credits 1460 with 300.00 until the balance is gone.

> **WARNING**
>
> An advance given from petty cash (`Accounting ▸ Petty Cash ▸ PC Staff Advances`) is a separate record. It is not on the Advances list and payroll does not recover it. An Inactive employee is skipped by payroll, so the balance is not recovered until the person is Active again. The Advances list shows the 300 newest advances and its tiles add up only those.

Source: `src/Zeyto.Web/src/help/content/employees.ts` , `src/Zeyto.Edge/Api/PayrollApi.cs` , `src/Zeyto.Edge/Data/migrations/0017-payroll-ledger-links.sql`

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5. WPS, gratuity and leave: what exists and what does not

Payroll in the UAE has three neighbours: the bank salary file (WPS), end-of-service gratuity and leave. Zeyto handles the first as a helper file, the second as a report, and the third not at all. The honest list is below, so you do not plan around something that is not there.

The WPS screen

Open `Employees ▸ WPS` , choose the **Payroll Month** and press `Generate WPS SIF` . The rows show each employee who can be included, with the MOHRE code, the IBAN and the Net. The tiles show the number of rows and the total net. It works for a run in any status, so you can check the amounts before you approve. The button `Download SIF (not bank ready)` saves a file named `WPS-YYYY-MM.sif` . It starts with one `SCR` header line followed by one `EDR` line per person.

The words "not bank ready" are in the button on purpose. The screen lists what a bank will still reject: your employer MOHRE establishment ID, the bank routing code, the fixed and variable salary split, the labour card number and the days on payroll. Treat the file as a check of your own data, and ask your bank or exchange house for their accepted layout.

1. **Fix the master data.** On each `Employees ▸ Employees` record fill the MOHRE Person Code and the IBAN.
2. **Calculate first.** The READY flag is decided when you press Calculate. A person added later stays out of the file until you press Calculate again, which works only before the run is approved.
3. **Generate and read.** Open `Employees ▸ WPS` , press `Generate WPS SIF` and compare the row count and total net with the Payroll Run tiles.
4. **Record the payment.** After the bank has paid, press `Pay Payroll` on the Payroll Run screen. The WPS screen does not post anything.

Gratuity is a report

Zeyto has a report called **Gratuity Liability** and a gratuity figure on the Employee Dashboard. It works out what you would owe each person today under UAE Federal Decree-Law 33 of 2021, article 51. It does not post a journal. Account 2600 Gratuity Provision exists in the chart of accounts, but nothing in Zeyto posts to it. If you book a provision, you book it yourself with a manual journal.

YEARS OF SERVICE	DAYS OF BASIC SALARY FOR EACH YEAR
Under 1 year	Nothing
Years 1 to 5	21 days
Beyond 5 years	30 days

The daily wage is basic salary times 12, divided by 365. The total can never be more than 24 times the monthly basic salary.

ILLUSTRATIVE FIGURES

Gratuity for 3 years of service

This is the worked case in the product's own help. Basic salary is 3,000.00 a month.

STEP	RESULT
Daily wage: 3,000.00 × 12 / 365	98.63
Days: 3 years x 21 days	63
Gratuity: 98.63 × 63	6,213.70
Cap: 24 × 3,000.00	72,000.00

The gratuity is below the cap, so 6,213.70 is the figure on the report. No ledger line is posted.

Leave and other deductions

Not verified in code as a feature: there is no leave screen and no leave table in the product today. The migrations contain none and the Employees menu lists only Employees, Compliance, Payroll, Advances and WPS. Track leave outside Zeyto, and change the pay on the employee record when a month needs it.

The only deduction payroll applies is the advance recovery. A table called `payroll_deduction` exists for fines, damage, absence and other deductions, but no screen or calculation uses it yet. If you need to dock a salary, change the allowance on the employee record before you press Calculate, and change it back afterwards.

WARNING

Once a run is APPROVED or PAID there is no Cancel on the Payroll Run screen. Cancelling one of its two journals somewhere else does not reopen the run and does not give the advance balances back. Check every payslip before you approve.

Reports for people

REPORT	WHAT IT TELLS YOU
Payroll Register	Every payslip of a run: gross, deductions and net.
Salary Cost by Branch	Salary cost per branch. A run has no branch, so you see one group with a dash.
WPS SIF Register	The WPS lines for a run.
Employee Advance Balances	What each person still owes you.
ID / Visa Expiry Alerts	Documents about to expire.
Gratuity Liability	The end-of-service amount per person today.
Master Employees	The employee list with its fields.

REPORT	WHAT IT TELLS YOU
Sales Commission Summary	Commission per month and salesperson.
Sales Commission Payable	Approved statements not yet paid, by age.

Source: `src/Zeyto.Web/src/help/content/employees.ts`, `src/Zeyto.Web/src/help/content/reports-catalog-vat-payroll-masters.ts`, `src/Zeyto.Edge/Domain/GratuityCalculator.cs`, `src/Zeyto.Edge/Api/PayrollApi.cs`, `src/Zeyto.Edge/Data/migrations/0007-hr.sql`

6. Sales commission

Commission is the money you pay a salesperson for selling. Zeyto does it in two steps that you keep apart: first it works out a statement per salesperson for a month, then you approve it, and only then does it become an expense and a debt to the person. Paying is a third step.

> **RULE**
> Commission is never part of posting an invoice. Calculating writes DRAFT statements and changes nothing in the accounts. Switching the feature on or off, or changing a scheme, never changes a sale already posted.



Where commission comes from. Invoices and receipts are the raw material. Returns take commission back. The statement is the only place the amount lives until you approve it.

Switch it on

1. **Open the settings.** Go to `Settings ▸ Commission`.
2. **Create the accounts.** Press `Create standard accounts` once. It creates 6120 Sales Commission Expense, 2410 Commission Payable and 1465 Commission Advances, and never changes an account that already exists.
3. **Tick the switch.** Tick **Calculate sales commission**. It is off by default. Choose **When is commission earned?**: as the customer pays (the default), when the invoice is issued, or when it is fully paid. A cash or card till sale counts at the sale.
4. **Add a scheme.** Press `Add a scheme`. Give it a name, choose the salespeople, and set the rule: a percentage of net sales or of profit, or an amount per unit. Use **Commission is worked out on** to choose net sales, profit or units sold.
5. **Add narrower rules.** Add rules for item groups or brands. The first rule that fits a sale is used, so keep the rule that covers everything last. Use Up and Down to reorder.
6. **Save.** Turning the switch on checks that the accounts, employees, item groups and brands

you named exist.

The other settings you will meet

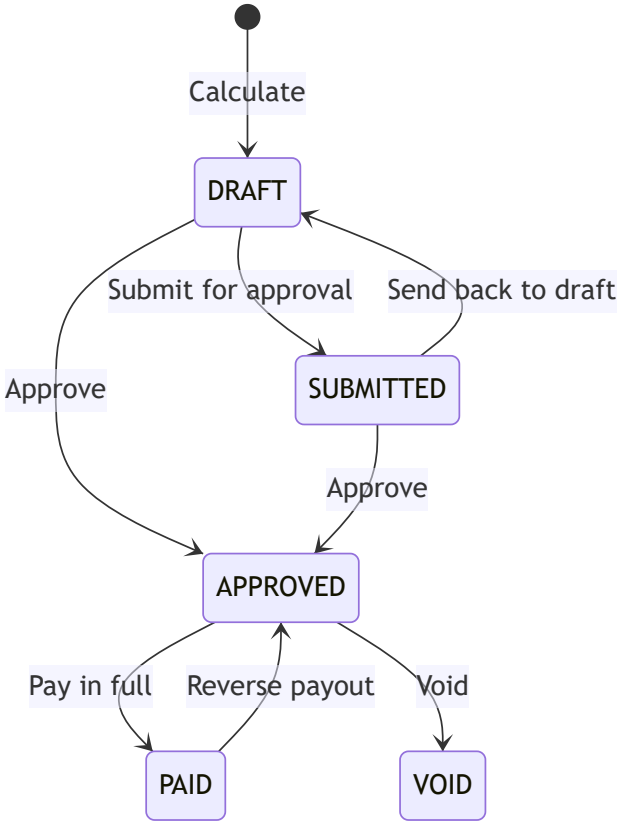
SETTING	EFFECT
Count sales from	Sales before this day earn nothing.
Locked up to (month)	Statements up to this month can no longer be approved, voided or adjusted.
Largest manual adjustment	The biggest plus or minus in one adjustment. Empty means no limit.
The person who calculated a statement cannot approve it	A second pair of eyes. On by default.
A statement must be submitted before it can be approved	Adds a Submit for approval step.
Lowest profit margin allowed, Largest discount allowed	Guards under Advanced. Past the limit the commission is cut as you choose.
Pay more as the total grows (tiers)	Bands by month, quarter or year. Each slice earns its own rate (marginal) or the whole total earns the band reached (slab).
Pay a bonus for reaching a sales target	A percent or fixed bonus once the person reaches a share of the monthly sales target. No target means no bonus.
Pay a manager a share of the team	A team override for the manager.
Take back commission on invoices unpaid after (days past due)	An invoice that stays unpaid that long gives its commission back, and earns it again when the customer pays.
Pay commission	By a payment from a bank or cash account, or through the payroll run as an earning.
Take any advance out of the next payout	Recovers an advance automatically when a statement is paid.

The month-end routine

The screen is `Sales ▸ Commission`. It has tabs **Statements**, **Exceptions**, **Summary**, **Payable ageing** and **Advances**.

1. **Calculate.** Choose the Month and press `Calculate`. It replaces earlier drafts of that month and never touches an approved or paid statement.
2. **Read Exceptions.** The tab lists sales that earn nothing, sales with no salesperson, and lines a guard or a return changed. Fix what needs fixing and press Calculate again.
3. **Open a statement.** Click it. Each line shows Earned, Taken back, Carried in and Net to pay. Click **Why** on a line to see the rule, the rate and any guard.
4. **Submit and approve.** If the submit step is on, press `Submit for approval`. A colleague then presses `Approve`. Approve is refused if sales or receipts changed after the calculation, so calculate again first.

5 **Pay.** Press `Pay`, choose the bank or cash account, the date and a reference, then confirm. Type a smaller amount to pay part of it. The statement stays approved until it is paid in full.



Commission statement states. Void works only on an approved statement that has not been paid. A paid statement cannot be voided, so reverse the payout first. A payment made through payroll is reversed with the payroll run.

Worked cases

REAL EXAMPLE

Rate 2%, then a credit note takes commission back (GS_COMM_29)

A sale of 10,000.00 net plus 500.00 VAT makes an invoice of 10,500.00. The rule is 2% of net sales, so the invoice earns 200.00. Later the scheme is changed to 3%. A credit note for 2,500.00 net comes in. Zeyto takes back 2% of 2,500.00, which is 50.00, the rate the original sale earned. It does not use today's 3%, which would be 75.00.

Commission is worked out on the net amount, not on the VAT.

REAL EXAMPLE

Earned as the customer pays (GS_COMM_29b)

The same 10,500.00 invoice. In March the customer pays 4,200.00. Commission is 200.00 × 4,200 / 10,500, which is 80.00. In April a credit note of 2,625.00 arrives, whose potential commission is 150.00 on an invoice that is now 7,875.00. The customer pays 3,675.00 and the invoice is complete. April earns 150.00 minus the 80.00 already earned, which is a net +70.00. Nothing is deducted twice.

REAL EXAMPLE

Tiers on 120,000.00 of net sales in a month (GS_COMM_32)

Bands: 0 to 50,000 at 1%, 50,000 to 100,000 at 2%, above 100,000 at 3%.

METHOD	WORKING	COMMISSION
Marginal	50,000 × 1% = 500.00; 50,000 × 2% = 1,000.00; 20,000 × 3% = 600.00	2,100.00
Slab	120,000 × 3%, the whole total at the band reached	3,600.00

Approving the marginal statement books the accrual:

ACCOUNT	DR	CR
6120 Sales Commission Expense	2,100.00	
2410 Commission Payable		2,100.00
Total	**2,100.00**	**2,100.00**

REAL EXAMPLE

A part payment that recovers an advance (GS_COMM_38)

A statement of 1,000.00 is approved. The salesperson already had an advance of 300.00, posted earlier as Dr 1465 300.00 and Cr 1100 300.00. The advance is taken out of the first payout.

Pay 400.00: 300.00 recovers the advance and 100.00 is cash.

ACCOUNT	DR	CR
2410 Commission Payable	400.00	
1100 Bank, Current Account		100.00
1465 Commission Advances		300.00
Total	**400.00**	**400.00**

Pay the remaining 600.00:

ACCOUNT	DR	CR
2410 Commission Payable	600.00	
1100 Bank, Current Account		600.00
Total	**600.00**	**600.00**

The statement is PAID and accounts 2410 and 1465 are both zero. Reversing the second payout would leave 600.00 on the payable.

REAL EXAMPLE

Paying commission through payroll (GS_COMM_42)

Basic salary is 5,000.00 and the approved, unpaid commission is 1,200.00. With the PAYROLL channel on, the payslip gross is 6,200.00. Approve Payroll posts:

ACCOUNT	DR	CR
6100 Salaries & Wages	5,000.00	
2410 Commission Payable	1,200.00	
2500 Salaries Payable		6,200.00
Total	**6,200.00**	**6,200.00**

The commission payable falls to zero and the expense is not booked twice, because it was already booked when the statement was approved.

Rounding and splits

When a sale's commission is split between two people, each share is rounded half up and any excess cent comes off the last share. A 33.33 commission split 50 and 50 becomes 16.67 and 16.66. A 200.00 commission split 60 and 40 is 120.00 and 80.00 (GS_COMM_31 and the 60/40 case in the design notes).

TIP

Salespeople see only their own statements in `Sales ▸ My Commission`. A month marked Estimate is still a draft and can change. A branch Edge is read only for commission: calculate and pay on the main Edge.

> Source: `src/Zeyto.Web/src/help/content/sales-commission.ts`, `src/Zeyto.Edge/Api/CommissionApi.cs`, `src/Zeyto.Edge/Data/migrations/0098-commission.sql`, `docs/architecture/commissions-design.md` (section 11.3), `src/Zeyto.Edge/Security/PermissionCatalog.cs`

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7. Charges: freight, delivery and the other extras on an invoice

In Zeyto, "charges" means the extra lines on an invoice that are not goods: freight, customs, clearing, insurance and delivery. It is not a people topic. It sits in this chapter only because the word often appears next to commission and payroll in conversation, and because the Expense Types screen is reached from both the Sales and the Purchase menus.

Where you set them up

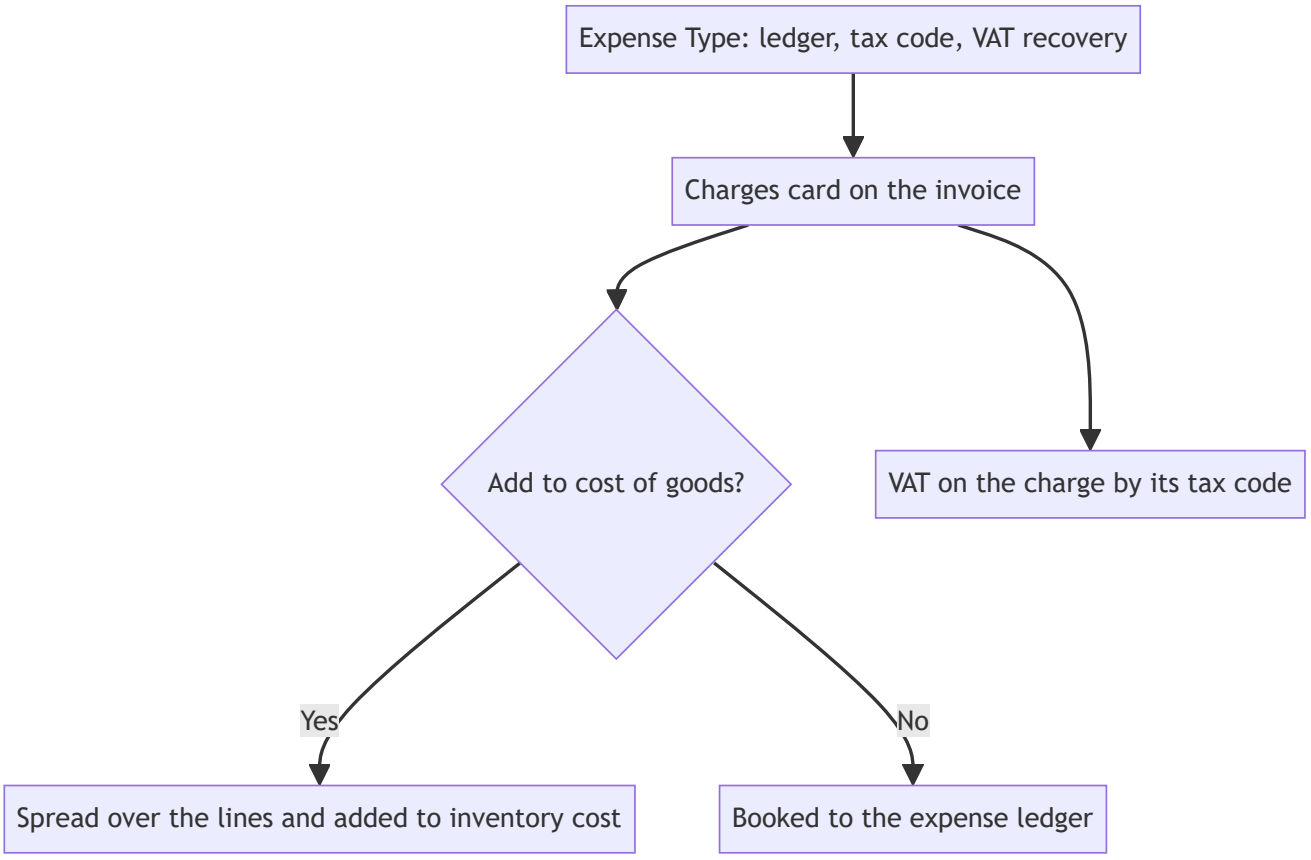
`Settings ▸ Expense Types`, also reachable from the Purchase and Sales menus. Each type has a Kind (Purchase or Sales), a Code, a Name in English and Arabic, a Ledger account, a Tax code, a VAT recovery rule (Full, Partial n% or None), an option Add to cost of goods, and a Default spread by (Value, Quantity, Weight, Volume or Equal).

Where you use them

The **Charges** card under the lines of a Purchase Invoice and a Sales Invoice. Type a charge type in the blank row and press Tab. Zeyto fills the Description and Tax code. Type the Amount without VAT.

Where you see the result

`Purchase ▸ Landed Cost` shows Value before, Unit before, Charges, To cost of sales, Value after and Unit after. Items have Unit weight and Unit volume for spreading by weight or volume.



What happens to a purchase charge. Capitalised charges raise the cost of the goods. The spread follows the Default spread by setting. On a sales invoice the charge is income, with its own ledger line and its own VAT.

REAL EXAMPLE

Purchase with freight added to stock cost (GS_CHG_01)

Two stock lines of 1,000.00 each, freight of 200.00 that you capitalise, VAT 5% fully recoverable. Goods plus VAT is 2,100.00, freight plus VAT is 210.00.

ACCOUNT	DR	CR
1300 Inventory	2,200.00	
1400 VAT Input	110.00	
2100 Trade Payables		2,310.00
Total	**2,310.00**	**2,310.00**

The VAT return shows box 9 taxable 2,200.00 with VAT 110.00. If the VAT is not recoverable (GS_CHG_02) the input VAT drops to 100.00 and inventory rises to 2,210.00. If the freight is expensed instead (GS_CHG_03) the journal is Dr Inventory 1,000.00, Dr Freight 200.00, Dr VAT Input 60.00 and Cr Payable 1,260.00 for goods of 1,000.00.

REAL EXAMPLE

Cash sale with a delivery charge (GS_CHG_30)

Goods of 300.00 plus a delivery charge of 40.00, VAT 5% on 340.00 which is 17.00. The customer pays 357.00 in cash. The goods cost 200.00.

ACCOUNT	DR	CR
1000 Cash in Hand	357.00	
4000 Sales		300.00
Delivery income (ledger of the sales expense type)		40.00
2200 VAT Output		17.00
5000 Cost of Goods Sold	200.00	
1300 Inventory		200.00
Total	**557.00**	**557.00**

Box 1 of the VAT return shows taxable 340.00 and VAT 17.00. A document discount of 30.00 applies only to the goods (GS_CHG_32): Cr Sales 270.00, Cr Delivery 40.00, Cr VAT 15.50 and Dr Receivable 325.50.

TIP

A charge billed to you by a different supplier raises its own purchase bill. A charge you paid yourself is settled when you enter it. A posted purchase invoice has an Add charge action, for a freight bill that arrives after the goods. If some of the goods were already sold, the charge is split between inventory and cost of sales: with 4 of 10 units already sold and freight of 100.00, Dr Inventory 60.00 and Dr Cost of Sales 40.00 (GS_CHG_10).

> Source: `src/Zeyto.Web/src/help/content/charges.ts`, `docs/architecture/document-charges-design.md`, `src/Zeyto.Web/src/help/content/sales-documents.ts`, `src/Zeyto.Edge/Data/migrations/0111-document-charges.sql`

8. Check yourself and common mistakes

Check yourself

1. Calculate a payroll month, then open the trial balance. Nothing should have moved. Only after Approve Payroll does 6100 gain the gross and 2500 gain the net.
2. After Approve and Pay, open the ledger of 2500 Salaries Payable. The balance for that month should be zero.
3. Open the report Employee Advance Balances before and after an approved payroll. Each recovered advance should fall by its monthly recovery.
4. Compare the row count and total net on `Employees ▸ WPS` with the tiles on the Payroll Run screen. They should agree unless someone shows MISSING.
5. Open the Gratuity Liability report and check one person by hand: basic times 12, divided by 365, times 21 days for each of the first five years.
6. After you approve a commission statement, open the ledger of 2410 Commission Payable. It should equal the sum of Net to pay on the approved statements. The report Sales Commission Payable should show the same total.
7. Open one commission line and press Why. The rule, rate and guard it names should match your scheme.
8. On a purchase with freight, open `Purchase ▸ Landed Cost`. Value after should equal Value before plus the capitalised charges.

Common mistakes

SYMPTOM	CAUSE	FIX
A person is missing from the payroll run	The employee is Inactive, or was added after you pressed Calculate.	Make the person Active and press Calculate again, before you approve.
Calculate is refused	The run is already APPROVED or PAID, or you lack employees.create.	A finished run cannot be recalculated. For permissions use Settings ▸ Users & Permissions.
A new salary did not show on the payslip	The payslip was calculated before the change. Amounts are fixed at Calculate.	Press Calculate again while the run is GENERATED.
The advance is not being recovered	Recovery Start is later than the payroll month, the employee is Inactive, or the advance came from petty cash.	Check the advance on Employees ▸ Advances. Petty cash staff advances are not recovered by payroll.
The WPS column shows MISSING	No MOHRE Person Code, no IBAN, or no net pay when the run was calculated.	Fix the employee, then Calculate again before approving.
The bank rejects the SIF file	The file is marked not bank ready. It lacks the establishment ID, routing code and other fields.	Use it as a check of your data and get the accepted layout from your bank.
Salary Cost by Branch shows one group with a dash	A payroll run has no branch. Journals go to the first active branch.	This is how the product works today. Do not rely on the report to split cost by branch.

SYMPTOM	CAUSE	FIX
Payroll cost appears in the wrong month	Both journals are dated the day you press the button.	Approve and pay in the month where the cost belongs.
The Commission screen is empty	Calculate sales commission is switched off in Settings ▸ Commission, or no month was calculated.	Switch it on, create the standard accounts, add a scheme and press Calculate.
Approve is greyed out or refused	You lack commission.approve, you calculated the statement yourself while the control is on, or sales changed after the calculation.	Ask a colleague with the approve permission, or press Calculate again.
A salesperson sees nothing in My Commission	The login is not linked to an employee.	Fill Linked App User on the employee record.
A return took back a different amount than expected	A return takes back commission at the rate the original sale earned, not today's rate.	Open the Taken back line and press Why.
A statement cannot be voided	It is already PAID.	Press Reverse this payout, then Void.
Someone looks for a "charges" column on payroll	Charges are invoice lines for freight and delivery, not payroll items.	Use Settings ▸ Expense Types and the Charges card on the invoice.

TIP

Zeyto has no leave module, no overtime calculation and no deductions other than advance recovery. If you rely on one of these, keep it outside Zeyto and change the allowance on the employee record before you Calculate.

Source: `src/Zeyto.Web/src/help/content/employees.ts`, `src/Zeyto.Web/src/help/content/sales-commission.ts`, `src/Zeyto.Web/src/help/content/charges.ts`, `src/Zeyto.Edge/Api/PayrollApi.cs`

DAILY WORK

Sales: from quotation to cash

After this chapter you can take a customer from a quotation to money in the bank, read the exact ledger rows each document writes, fix a wrong invoice with Amend instead of deleting it, and prove that the customer statement, the VAT figures and the stock agree.

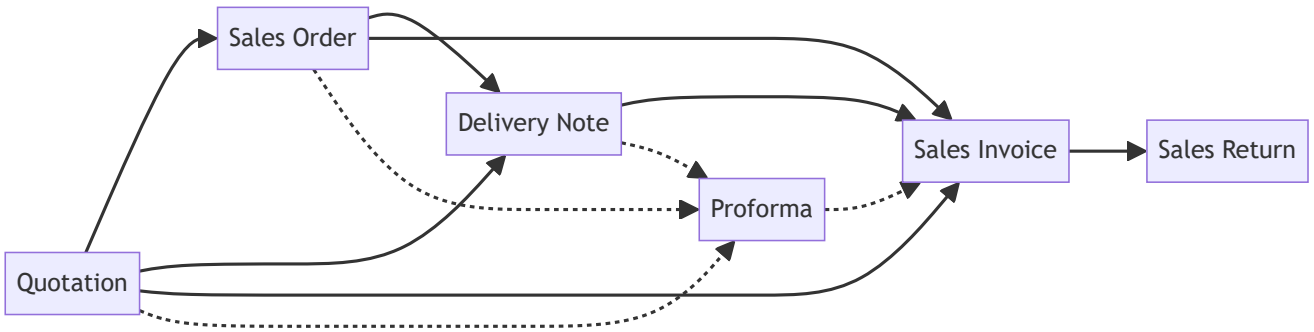
1. The big picture: six documents, one chain, two kinds of posting

Sales in Zeyto is a short chain of documents. You start where the customer starts. A shop that sells over the counter creates a Sales Invoice straight away. A company that quotes, delivers and invoices later uses the whole chain. Every document in the chain can be made from the one before it, and the new document remembers where it came from.

The documents split into two groups. Three of them never touch your books. Three of them do.

DOCUMENT	MENU	POSTS TO THE LEDGERS?	WHAT IT IS FOR
Quotation	`Sales ▸ Quotation`	No	A price offer with a Valid Until date. It can be revised (R1, R2).
Sales Order	`Sales ▸ Sales Order`	No	The customer has committed. Optional Reserve Stock, Advance Required and Advance %.
Proforma	`Sales ▸ Proforma`	No	A document you hand over to ask for payment first. It never uses up the quantity of its source.
Delivery Note	`Sales ▸ Delivery Note`	Yes: stock out and cost of goods only	Goods leave the warehouse. No sale, no VAT.
Sales Invoice	`Sales ▸ Sales Invoice`	Yes: sale, VAT, receivable or cash, and stock out unless it came from a Delivery Note	The tax invoice. Cash or credit.
Sales Return	`Sales ▸ Sales Return`	Yes: reverses the sale, the VAT and, if restocked, the cost	Prints as a credit note.

Money coming in has its own documents under `Sales ▸ Receipts` (the Receipt Voucher) and `Sales ▸ Advance Tax Invoices`. Advances are created from `Accounting ▸ Advances`. They are covered in section 5.



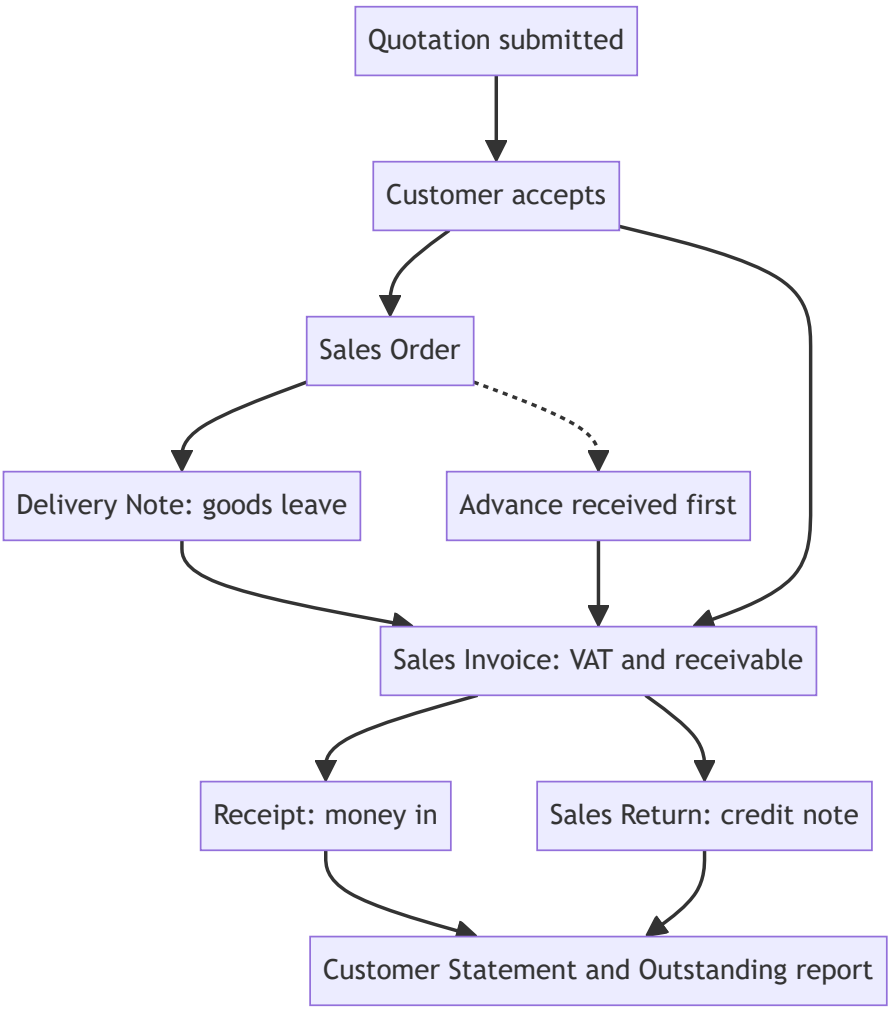
The conversion chain. Solid arrows use up quantity: when you convert, the source line shows less open quantity. Dotted arrows only link: a Proforma is made from a Quotation, Order or Delivery Note and an invoice can be made from a Proforma, but neither consumes the quantity of its source. The rules live in `DocsApi.ConvertMap`.

The rules of conversion

- You press `Convert` in the `More ▾` menu of the source document. Zeyto creates a Draft of the next document. You review it, change quantities if you need to, and submit it.
- Only a Submitted or Amended document can be converted. A Draft or a Cancelled document cannot.
- The new document takes today's date, not the date of its source.
- You can also start from the other end: on a new Delivery Note or Invoice, choose **Create Against**, pick the **Source Doc** and press `Pull Lines`.
- If a source has a live child, you cannot cancel or amend the source. The message reads like "X has Y (Submitted). Cancel the invoice first." (code `CHAIN_CHILDREN`). Work from the end of the chain backwards.
- You cannot take more than is left. A return larger than invoiced less already returned is refused with `SOURCE_BALANCE`.

THE CHAIN CAN BE MADE STRICTER OR LOOSER

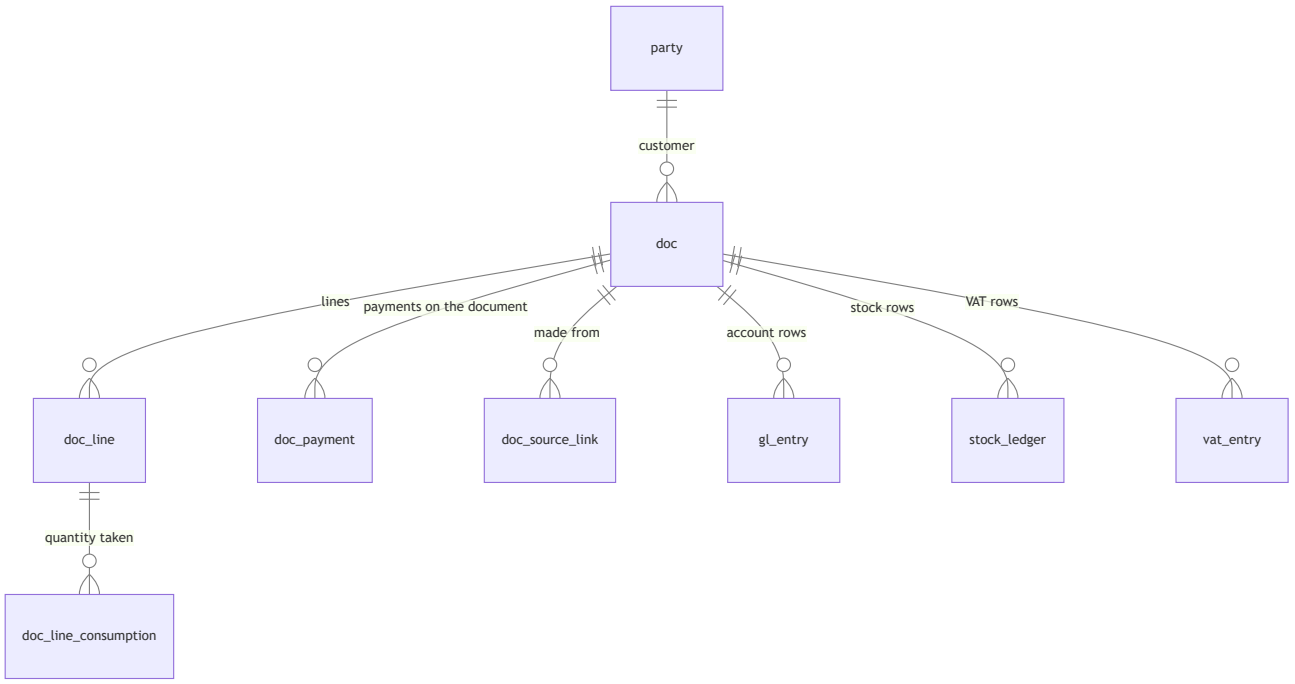
Open `Settings ▸ Document Workflow`, tab **Chain**. Each link can be Required, Optional or Off. Required means the next document must come from the previous one. Merging several orders into one delivery note, partial quantities, price changes on the new document and quotation expiry (tab **Orders & closing**) are set there too. Everything starts as Zeyto has always worked, so nothing changes until you change a switch. Field Sales and POS documents are not stopped by a Required link.



The sales workflow end to end. The path through the Delivery Note and the path straight from acceptance to the invoice are both normal. Whatever path you take, the customer statement at the end reads the same ledger rows.

Where the data lives

Every sales document is one row in `doc` with its lines in `doc_line`. Posting writes append-only rows: `gl_entry` for accounts, `stock_ledger` for stock and `vat_entry` for the VAT return. The links between documents are in `doc_source_link`, and the quantity taken from each source line is in `doc_line_consumption`. A receipt settles an invoice through the `against_doc_id` column of `gl_entry`.



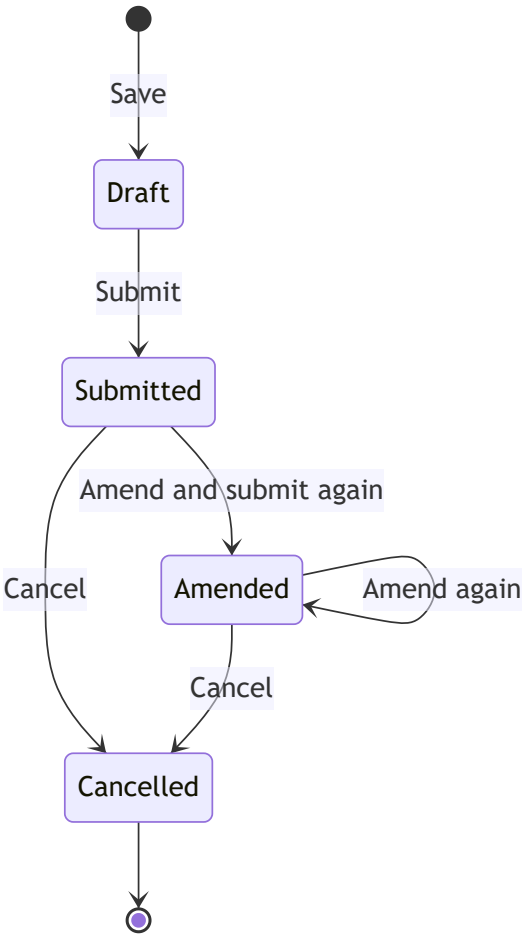
The sales tables. Nothing in `gl_entry`, `stock_ledger` or `vat_entry` is ever edited or deleted. A correction is always a new row. This is why Amend and Cancel (section 6) leave a complete trail.

Document status and the Flow chip

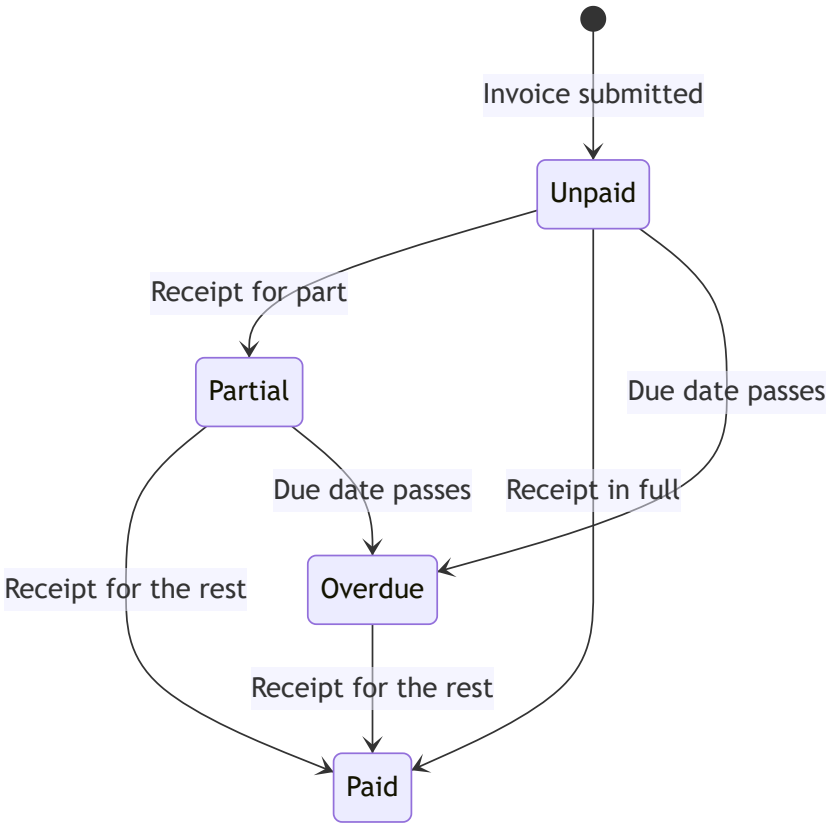
Every document has a Status: Draft, Submitted, Amended or Cancelled. Documents that are part of the chain also show a **Flow** chip that says how far the chain has got.

DOCUMENT	FLOW CHIP VALUES	WHAT MOVES IT
Quotation	Won, Open again; revisions R1, R2; "Superseded by R1"	You mark it Won when the customer accepts. Revising creates the next revision and marks the old one superseded.
Sales Order	Partial, Completed	Delivery notes and invoices made from it take quantity.
Delivery Note	Partially Invoiced, Invoiced	Invoices made from it.
Sales Invoice	Partially Returned, Returned	Sales Returns made from it.

The Sales Invoice list also has a **Payment** chip: Paid, Partial, Unpaid or Overdue Nd (N is the number of days past the Due date). The list columns are Action, Doc No, Date, Party, Cur, Total, Salesman, LPO, Flow, Status, Warehouse, Source, Due, Outstanding and Payment.



The lifecycle of every sales document. Only a Submitted or Amended document is real. A Draft has no ledger rows. Cancelled keeps its number: the number is never reused, and the document stays visible with its reversal rows.



The Payment chip on a Sales Invoice. A cash invoice is born Paid because its payment is captured on the document. A credit invoice is born Unpaid.

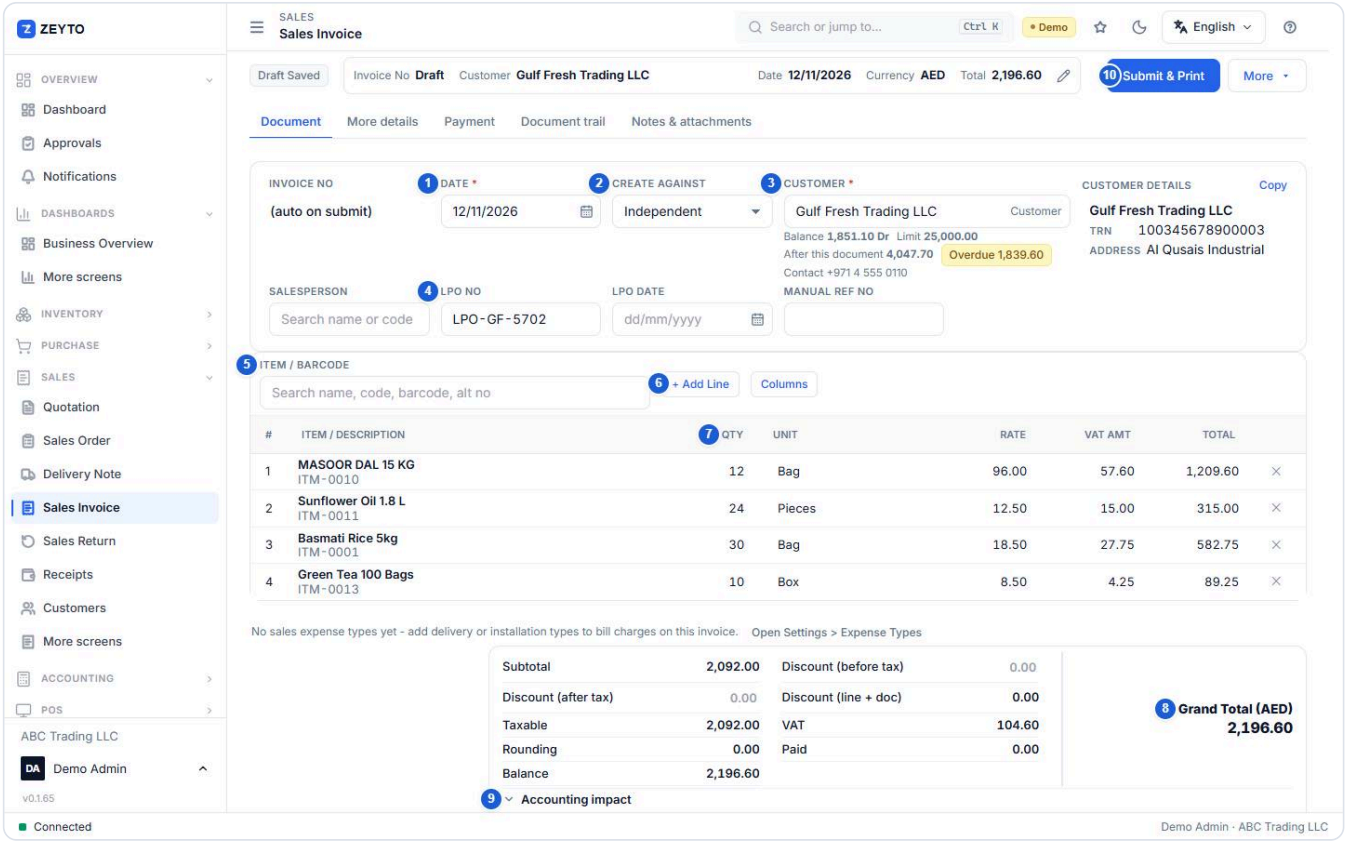
Not verified in code: the exact rule that turns Partial into Overdue. The chip values and the list columns are taken from the Sales Documents help.

Not verified in code: how the Costing setting changes the timing of cost of sales on a Delivery Note. The form's preview note says the timing follows the Costing setting. The voucher matrix run shows the Delivery Note posting cost of goods at once.

> Source: `src/Zeyto.Web/src/help/content/sales-documents.ts`, `src/Zeyto.Web/src/help/content/settings-doc-workflow.ts`, `src/Zeyto.Edge/Api/DocsApi.cs`, `src/Zeyto.Edge/Domain/PostingEngine.cs`, `src/Zeyto.Edge/Data/migrations/0004-documents.sql`, `src/Zeyto.Edge/Data/migrations/0005-ledgers.sql`, `src/Zeyto.Web/src/screens/nav.ts`, `docs/operations/voucher-matrix-sales-2026-11-04.md`

2. The Sales Invoice screen, region by region

One form serves the Quotation, Sales Order, Delivery Note, Proforma, Sales Invoice and Sales Return (`screens/docs/DocForm.tsx`; `SalesInvoice.tsx` is a nine-line alias). So once you know this screen you know all six. Fields that do not apply to a document type are simply not shown. Following the owner's rule, you always open the list first (`Sales ▸ Sales Invoice`) and press `+ New Sales Invoice` to get the form.



The Sales Invoice form with a draft open. The draft is for Gulf Fresh Trading LLC. The strip under the page title shows the number (Draft until you submit), the customer, the Date, the Currency and the Total 2,196.60. The primary button reads Submit & Print, and the Accounting impact section is collapsed under the totals.

1. DATE: the document date, typed as DD/MM/YYYY.
2. CREATE AGAINST: Independent here. Pick an earlier document to pull its lines instead.
3. CUSTOMER: the typed picker. Under it you see the customer's balance, credit limit, the balance after this document and any overdue amount.
4. LPO NO: the customer's own order number.
5. ITEM / BARCODE: the search box. Type a name, code, barcode or alternative number.
6. + Add Line: adds an empty line to the grid.
7. QTY, UNIT, RATE, VAT AMT and TOTAL: the line grid. Each line shows the item name with its code under it.
8. Grand Total (AED): subtotal plus VAT. Here 2,092.00 plus 104.60 gives 2,196.60.
9. Accounting impact: the preview of what Submit will post, collapsed until you open it.
10. Submit & Print: the primary button. It posts the document and prints it.

The toolbar and the summary strip

The primary button posts the document (`Ctrl+Enter`). Its label follows the company's after-posting action: it reads `Submit` , or `Submit & Print` when the company prints after posting, as in the demo. When the primary button does not already print, a separate `Submit & Print` (`Ctrl+Shift+Enter`) sits next to it. On a posted document the primary button reads `Amend` (`Amend & Print` in the demo). Everything else is under `More ▾` : New, Save (`Ctrl+S` , which keeps a Draft without posting), Convert, Cancel, Print, Postings, WhatsApp PDF, Attachments, Activity and Timeline. The strip under the page title always shows the document number, the party, the Date, the Currency and the Total, so you never lose them while scrolling the lines. A chip at its left shows the state: Draft Saved, Submitted, and so on.

The header

The header has five tabs: **Document**, **More details**, **Payment**, **Document trail** and **Notes & attachments**. The Document tab carries the fields you use every day: Invoice No, Date, Create Against, Customer with the Customer Details box beside it, Salesperson, LPO No, LPO Date and Manual Ref No. The less frequent fields (Price List, Payment Term, Currency and Rate, Date of Supply, Update Stock and the like) are on **More details**, and the Payment tab holds what the customer pays now:

FIELD	WHAT IT DOES
Create Against, Source Doc, Pull Lines	Start from an earlier document in the chain. Pull Lines copies its open lines. Each pulled line remembers its source group.
Customer (`F3`)	A typed multi-column picker: type part of a name or code and the columns narrow the list. Picking a customer fills the Price List, the Salesperson and the Payment Term from the customer record (`customerDefaults.ts`), unless you already changed them by hand.
Price List	Decides the Rate of each line. See section 7.
Payment Term	Sets the Due date, which feeds the Outstanding report and the Overdue chip.
Currency, Rate	For a foreign currency invoice the rate is booked to the base currency. See the last example in section 3.
LPO No, Manual Ref No	The customer's order number and your own reference.
Update Stock	Whether the invoice moves stock. An invoice made from a Delivery Note moves none, because the note already did.
Date of Supply	The VAT point of supply when it differs from the document date.

Document specific fields appear only where they apply: on a Quotation **Valid Until**, **Quote Status**, **Follow-up Date** and **Win Probability %**; on a Sales Order **Expected Delivery**, **Reserve Stock**, **Advance Required** and **Advance %**; on a Delivery Note **Driver Name**; on a Proforma **Bank Details**.

The line grid, in order

The columns always appear in this order. The first columns are the ones you use every day:

1. **#** then **Item / Description**. Type a name or code, or scan a barcode. In the empty grid the hint reads "No lines yet, scan a barcode or press F4 to add the first line".
2. **Qty** and **Unit**. The Unit list offers only the units set up for that item. A scanned barcode brings its own unit.
3. **Rate**. From the price list, and editable if your role may edit prices.
4. **Disc %** and **Disc Amt**, then **Tax** (the tax code) and **VAT Amt**.
5. **Total** of the line.
6. Optional and tracked columns: **Alt No**, **Description**, **WH / Rack**, **Serial / IMEI**, **Batch No**, **Expiry Date**, **Return** (reason and Restock or Scrap, on a Sales Return), **Centres**, and the remove button.

Use the **Columns** picker above the grid to switch optional columns on or off. Of the optional columns only VAT Amt is on to begin with. The Serial column opens by itself for a serial-tracked item. If the setting **Enter Total** is on, you can type the line total and Zeyto works the rate back from it. On a phone, each line is one row with Item, Qty, Rate and Total first.

Units and barcodes on a sale line

- A line offers only the units in the item's unit table (`item_uom`). You cannot sell in a unit the item does not have.
- A barcode carries its unit (`item_barcode.uom_id`). Scan a carton barcode and the line is a carton.
- A price list rate applies to its own unit only. If the list has no rate for the unit you chose, the price is the base price multiplied by the unit factor.

Not verified in code: the W56 units and barcode work was on a branch when it was written up (`docs/operations/w56-item-units-barcode.md`). That document lists two open items: Min Sales Price is stored against the sales unit but read as a base unit price, and Field Sales lines send no unit. Check the release you run before relying on either.

The totals card

From top to bottom: **Subtotal**, **Discount (before tax)** (`F7`), **Discount (after tax)**, **Discount (line + doc)**, **Taxable**, **VAT**, **Rounding**, **Grand Total** in the document currency, **Paid**, and **Balance** (or **Advance** when the customer has overpaid). A note under the card says the amount in words is printed when you submit.

VAT is worked out per line and rounded half up to two decimals. The document VAT is the sum of the lines, not a percentage of the total. That is why three lines of 0.33 each carry VAT of 0.02 each (0.0165 rounds up), a total of 0.06, and a grand total of 1.05.

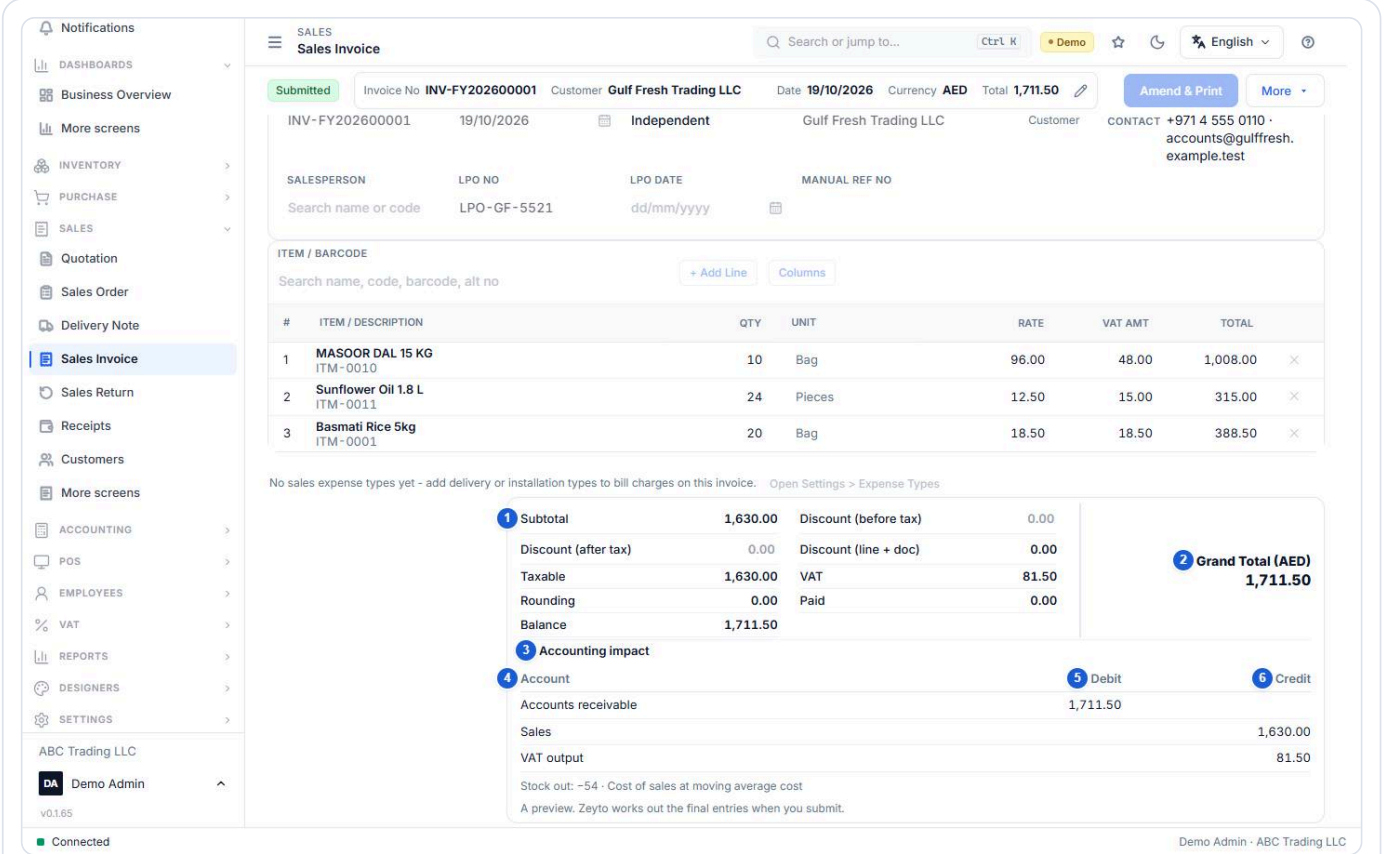
Discount (after tax) is a discount that includes VAT. Take a total of 1,050.00 with a 50.00 discount after tax. The customer pays 1,000.00 including VAT, so the taxable amount is 1,000.00 / 1.05 = 952.38 and the VAT is 47.62.

Accounting impact: what Submit will do

Under the totals there is a section called **Accounting impact**. It is collapsed to begin with, and Zeyto remembers per user whether you opened it. It shows, as a small Account / Debit / Credit table, what `Submit` is about to post:

ACCOUNT (AS SHOWN)	DR	CR
Accounts receivable	Grand Total	
Sales		Taxable
VAT output		VAT
Note under the table	**Stock out: minus the total quantity. Cost of sales at moving average cost.**	

The note under it reads "A preview. Zeyto works out the final entries when you submit." On a Delivery Note the table has no rows, only the stock out note. On a Quotation, Sales Order and Proforma it shows "No posting - document never touches the ledgers (converts keep line links)". The preview always shows a receivable. When part or all of the invoice is paid on the Payment tab, the final entries debit the payment mode accounts instead, as in the cash sale below. Use `More ▾` then `Postings` after you submit to see the real rows.



A submitted invoice with Accounting impact open. Invoice INV-FY202600001 for Gulf Fresh Trading LLC, status Submitted. Subtotal 1,630.00 and VAT 81.50 make the Grand Total 1,711.50. The table debits Accounts receivable 1,711.50 and credits Sales 1,630.00 and VAT output 81.50. Under it the note reads: Stock out: -54, cost of sales at moving average cost.

1. Subtotal, VAT and Balance: the totals block. Balance is 1,711.50 because nothing is paid yet.
2. Grand Total (AED): 1,711.50.
3. Accounting impact: the heading you open or close. Zeyto remembers your choice.
4. ACCOUNT: the account that receives the entry, named in words.
5. DEBIT: Accounts receivable 1,711.50.
6. CREDIT: Sales 1,630.00 and VAT output 81.50.

> **TIP**
>
> Open the Accounting impact section on your first few invoices. It is the fastest way to learn the posting map, and it costs nothing because nothing is posted until you press Submit.

> Source: `src/Zeyto.Web/src/screens/docs/DocForm.tsx`, `src/Zeyto.Web/src/screens/docs/SalesInvoice.tsx`, `src/Zeyto.Web/src/screens/docs/customerDefaults.ts`, `src/Zeyto.Web/src/screens/AccountingImpact.tsx`, `src/Zeyto.Web/src/help/content/sales-documents.ts`, `docs/forms-spec.md`, `docs/operations/w56-item-units-barcode.md`, `tests/Zeyto.Tests/GoldenPostingTests.cs`

3. What each document posts: cash sale, credit sale, delivery

All sales postings come from one engine (`PostingEngine` with the account map in `GlMapper`). The engine always writes balanced entries: total debits equal total credits, and the trial balance stays at zero. The accounts below are the ones in the standard UAE chart of accounts that Zeyto installs.

CODE	ACCOUNT NAME	ROLE IN SALES
1000	Cash in Hand	Cash received on a cash invoice or receipt
1100	Bank - Current Account	Bank mode receipts
1110	Card Clearing	Card payments until the bank settles them
1200	Trade Receivables	What customers owe on credit invoices
1300	Inventory	Stock value, credited when stock leaves
2200	VAT Output	VAT you collected
2300	Customer Advances	Money received before the invoice, or more than the invoice
4000	Sales	Net sales
4100	Sales Returns	Net value of goods returned
4900	Other Income	Delivery and other charges on the document
5000	Cost of Goods Sold	Cost of what was sold, at moving average cost
6860	Discount Allowed	A settlement discount given on a receipt

REAL EXAMPLE

A cash sale with VAT (golden test GS_INV_01)

Item A is sold at 18.50, ten pieces. Item B is sold at 15.00, three pieces. The customer pays all of it in cash. Item A costs 10.00 and item B costs 8.00 at moving average. VAT is 5%.

LINE	QTY	RATE	NET	VAT 5%	LINE TOTAL
Item A	10	18.50	185.00	9.25	194.25
Item B	3	15.00	45.00	2.25	47.25
Document	**13**		**230.00**	**11.50**	**241.50**

Cost of goods: 10 × 10.00 + 3 × 8.00 = 124.00. The journal Submit writes (document number INV-00001 in the test company):

ACCOUNT	DR	CR
1000 Cash in Hand	241.50	
4000 Sales		230.00
2200 VAT Output		11.50
5000 Cost of Goods Sold	124.00	
1300 Inventory		124.00
Total	**365.50**	**365.50**

Stock: item A leaves 10 and item B leaves 3, one row each in `stock_ledger`. VAT: one row in `vat_entry` with 230.00 taxable and 11.50 VAT. The cash side is a debit to the cash account because the invoice was paid in full on the Payment tab. If the customer paid by card, the debit goes to 1110 Card Clearing instead.

REAL EXAMPLE

A credit sale (golden test GS_INV_02)

Two pieces at 18.50 on credit: net 37.00, VAT 1.85, total 38.85. Cost is 10.00 each, so 20.00.

ACCOUNT	DR	CR
1200 Trade Receivables	38.85	
4000 Sales		37.00
2200 VAT Output		1.85
5000 Cost of Goods Sold	20.00	
1300 Inventory		20.00
Total	**58.85**	**58.85**

The customer now owes 38.85. It appears on the Party Statement and in the Outstanding report until a receipt settles it (section 5).

REAL EXAMPLE

One invoice, three ways to pay (voucher matrix, mixed tender)

A sale of 200.00 net with 7.50 VAT, paid with 100.00 cash, 50.00 by card and 57.50 left on credit. Cost of goods is 160.00. Each tender debits the account of its own payment mode.

ACCOUNT	DR	CR
1000 Cash in Hand	100.00	
1110 Card Clearing	50.00	
1200 Trade Receivables	57.50	
4000 Sales		200.00
2200 VAT Output		7.50
5000 Cost of Goods Sold	160.00	
1300 Inventory		160.00
Total	**367.50**	**367.50**

Other verified variations

SITUATION	WHAT THE POSTING DOES
Line discount plus document discount	The discount is taken before tax. In the matrix run: Dr 1200 198.45, Cr 4000 189.00, Cr 2200 9.45 (9.45 is 5% of 189.00).

SITUATION	WHAT THE POSTING DOES
Charges on the document (for example delivery)	Each charge is credited to its own account. In the matrix run a 20.00 charge credited 4900 Other Income, and its VAT went to 2200.
Foreign currency invoice	The rate is booked to the base currency, rounded half up. In the matrix run a USD invoice of 50.00 at 3.6725 debited 1200 with 183.63 (50 × 3.6725 = 183.625).
Exempt, zero-rated, reverse charge	Each has its own tax code and its own box on the VAT return. Reverse charge sales are described in the RCM help under `Sales ▸ RCM Declarations`.
Two warehouses on one invoice	Stock leaves each warehouse for its own lines.

STOCK NEVER BLOCKS A SALE UNLESS YOU TELL IT TO

A new install starts with Negative Stock on **Warn**, so a sale is allowed even when the system thinks stock is zero. To refuse such sales, open `Settings ▸ Costing`, set **Negative Stock** to **Block** and press `Save Policy`. A warehouse whose Allow Negative is Yes can still go below zero. The rule is read when a document is posted.

The Delivery Note

A Delivery Note is the one document that moves goods without booking a sale. In the matrix run a Delivery Note of 340.00 cost posted exactly this:

ACCOUNT	DR	CR
5000 Cost of Goods Sold	340.00	
1300 Inventory		340.00
Total	**340.00**	**340.00**

There is no VAT, no sale and nothing owed by the customer yet. The Sales Invoice made from that note then books only the money side: Dr 1200 441.00, Cr 4000 420.00, Cr 2200 21.00, with no stock rows and no second cost entry. Stock and cost are booked once, on the note.

Not verified in code: the matrix records that the cost on an invoice made from a Delivery Note is empty (`cost_at_post` is NULL, finding E2), so a later return of such an invoice must take its cost from the Delivery Note. Ask the support team how your release handles the cost of a return against such an invoice.

> Source: `src/Zeyto.Edge/Domain/PostingEngine.cs`, `src/Zeyto.Edge/Domain/GlMapper.cs`, `tests/Zeyto.Tests/GoldenPostingTests.cs`, `docs/operations/voucher-matrix-sales-2026-11-04.md`, `src/Zeyto.Edge/Data/migrations`, `src/Zeyto.Web/src/help/content/settings-finance.ts`

4. From quotation to delivery to invoice, step by step

This is the full chain for a company that quotes, delivers and invoices later. If you only sell over the counter, skip to step 5 and create the invoice directly.

1. **Make the quotation.** Go to `Sales ▸ Quotation` and press `+ New Quotation`. Pick the customer with `F3`, add the lines with `F4`, set **Valid Until**, and press `Submit`. A Quotation posts nothing.

2. **Record the answer.** When the customer accepts, mark the quotation **Won**. If you change the offer instead, revise it: the new revision is R1 and the old one shows "Superseded by R1".

3. **Turn it into an order.** On the Submitted quotation press `More ▾` then `Convert` and choose Sales Order. A Draft order opens with the lines copied. Set **Expected Delivery**, and **Advance Required** if you want a deposit. Press `Submit`.

4. **Deliver.** On the order, `More ▾` then `Convert` to Delivery Note. Check the quantities and the warehouse. `Submit`. Stock leaves and the cost of goods is booked. The order's Flow chip changes to Partial or Completed.

5. **Invoice.** On the Delivery Note, `More ▾` then `Convert` to Sales Invoice. The invoice takes the lines and the prices, and it does not move stock again. Check the Payment Term, and open Accounting impact to see the receivable. `Submit & Print`.

6. **Follow the trail.** Open the **Document trail** tab on the invoice. It shows the documents this one is linked to. The Delivery Note's Flow chip now reads Invoiced.

7. **Collect.** Record the receipt as shown in section 5.

ILLUSTRATIVE FIGURES

Partial delivery: what the Flow chips say

A Sales Order is for 100 pieces at 20.00. You deliver 60 now and 40 next week.

STEP	ORDER FLOW	OPEN QUANTITY ON THE ORDER	STOCK AND LEDGER EFFECT
Order submitted	Not yet Partial	100	None. The order never posts.
Delivery Note for 60 submitted	Partial	40	Stock out 60 at cost. Dr 5000, Cr 1300.
Invoice made from that note: 60 x 20.00 = 1,200.00, VAT 60.00	Partial	40	Dr 1200 1,260.00, Cr 4000 1,200.00, Cr 2200 60.00. No stock rows.
Second Delivery Note for 40, then invoice 800.00 + 40.00 VAT	Completed	0	Same pattern again.

The VAT is 5% of each line net: 1,200.00 × 5% = 60.00 and 800.00 × 5% = 40.00. The two invoices total 2,100.00 including 100.00 VAT.

A PROFORMA DOES NOT USE UP THE ORDER

If you make a Proforma from an order and then an invoice from the Proforma, the order's open quantity does not drop, because a Proforma only links. Make the invoice from the order or from the Delivery Note when you want the quantity to be taken. Otherwise the same goods can be invoiced twice.

Stopping a chain that went wrong

Cancel from the end of the chain backwards. If you try to cancel the Delivery Note while a Submitted invoice exists, Zeyto refuses with the message "X has Y (Submitted). Cancel the invoice first." Cancel the invoice, then the note, then the order. Each cancel writes reversal rows for whatever the document posted.

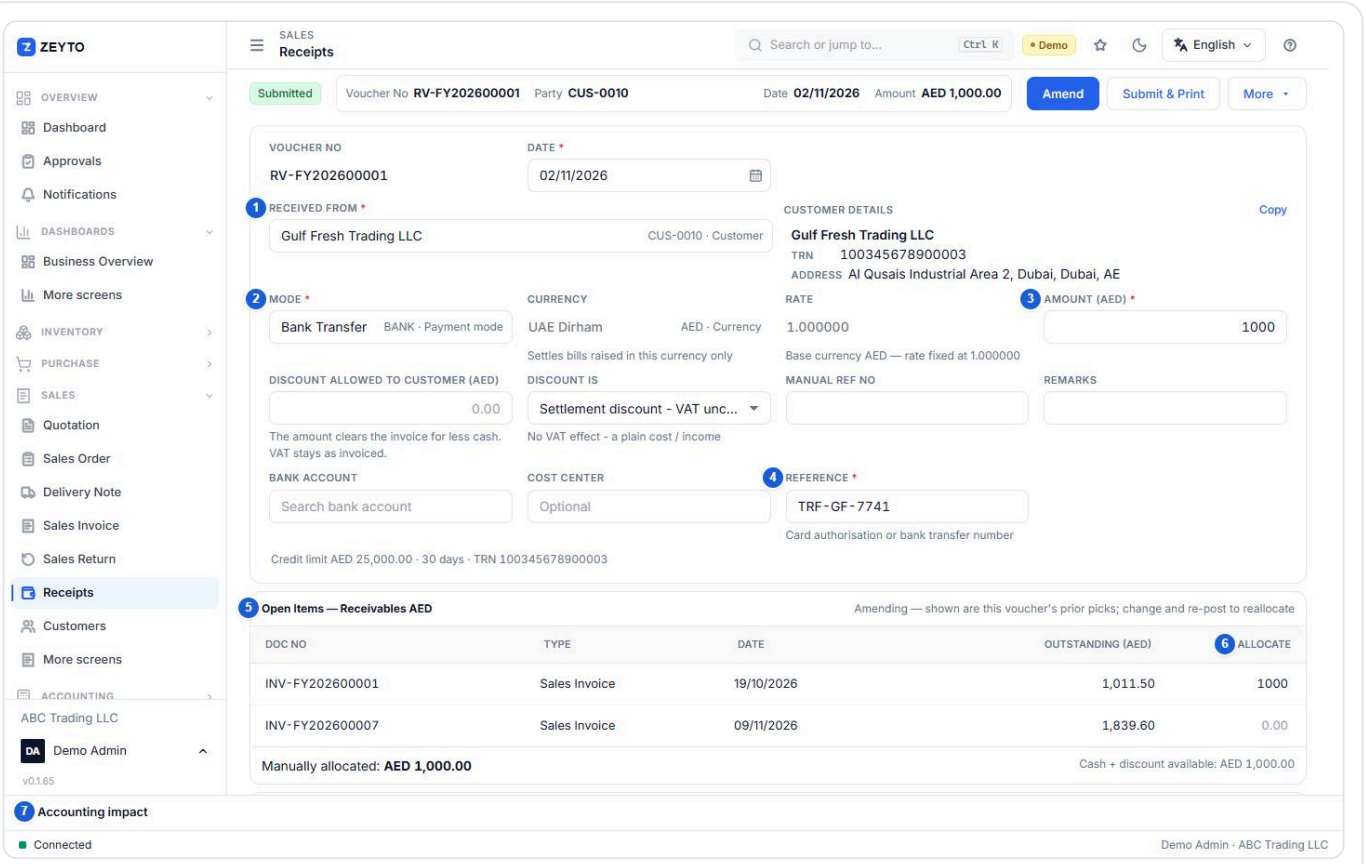
> Source: `src/Zeyto.Edge/Api/DocsApi.cs`, `src/Zeyto.Edge/Domain/PostingEngine.cs`, `src/Zeyto.Web/src/screens/docs/convert.ts`, `src/Zeyto.Web/src/help/content/sales-documents.ts`, `src/Zeyto.Web/src/help/content/settings-doc-workflow.ts`, `docs/operations/voucher-matrix-sales-2026-11-04.md`

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5. Receipts, advances and returns

The Receipt Voucher

Go to `Sales ▸ Receipts` and press the new button. The form asks for **Received From** (the customer), **Mode** (a payment mode, for example Cash, Bank Transfer or PDC Cheque), **Currency** and **Rate**, **Amount**, **Discount Allowed**, **Bank Account** and **Cheque No** where the mode needs them, a **Reference** (the card authorisation or bank transfer number) and the open invoices to allocate against. The toolbar follows the invoice: the primary button (Submit, or Amend on a posted receipt), `Submit & Print` and `More ▾`. The number comes from the number series. The demo company numbers receipts like RV-FY202600001.



A receipt voucher with its allocation. RV-FY202600001, Submitted, from Gulf Fresh Trading LLC: 1,000.00 by Bank Transfer, reference TRF-GF-7741. Under the header the Open Items list shows two unpaid invoices. The 1,000 sits in the Allocate column of the older one, INV-FY202600001, and the newer INV-FY202600007 has 0.00. The form is open on an already submitted receipt, so the toolbar shows Amend.

1. RECEIVED FROM: the customer, with the customer details box beside it.
2. MODE: the payment mode. Here Bank Transfer.
3. AMOUNT (AED): the money received, 1,000.00.

4. REFERENCE: required. The bank transfer or card authorisation number.
5. Open Items, Receivables AED: the customer's unpaid invoices with their outstanding amount.
6. ALLOCATE: how much of the receipt goes to each invoice. Type amounts here to choose which invoices the money settles.
7. Accounting impact: the preview of the entries, collapsed at the foot of the form.

Zeyto settles the customer's invoices **oldest first**. If you want a different order, use **Allocate** to choose the invoices and the amount for each. Whatever is left after the invoices are settled is kept **On account**, as a customer advance.

REAL EXAMPLE

Oldest-first allocation (golden test GS_RV_01)

Two credit invoices are open: 100.00 from 10/03/2026 and 50.00 from 12/03/2026, both without VAT. The customer hands over 120.00 in cash.

ACCOUNT	DR	CR
1000 Cash in Hand	120.00	
1200 Trade Receivables (against the 100.00 invoice)		100.00
1200 Trade Receivables (against the 50.00 invoice)		20.00
Total	**120.00**	**120.00**

The older invoice is now Paid. The newer one is Partial with 30.00 still outstanding. Each credit row carries the id of the invoice it settles in `against_doc_id`. That column is how the Outstanding report and the statement know which invoice has been paid. A manual allocation (test GS_RV_01B) puts the whole 50.00 on the newer invoice instead.

REAL EXAMPLE

Paying too much, and a settlement discount (golden tests GS_RV_02 and GS_RV_DISC)

Overpay: the invoice is 100.00 and the customer pays 150.00. The extra 50.00 goes to the customer advance account and is not matched to any invoice.

ACCOUNT	DR	CR
1000 Cash in Hand	150.00	
1200 Trade Receivables (the invoice, in full)		100.00
2300 Customer Advances (on account)		50.00
Total	**150.00**	**150.00**

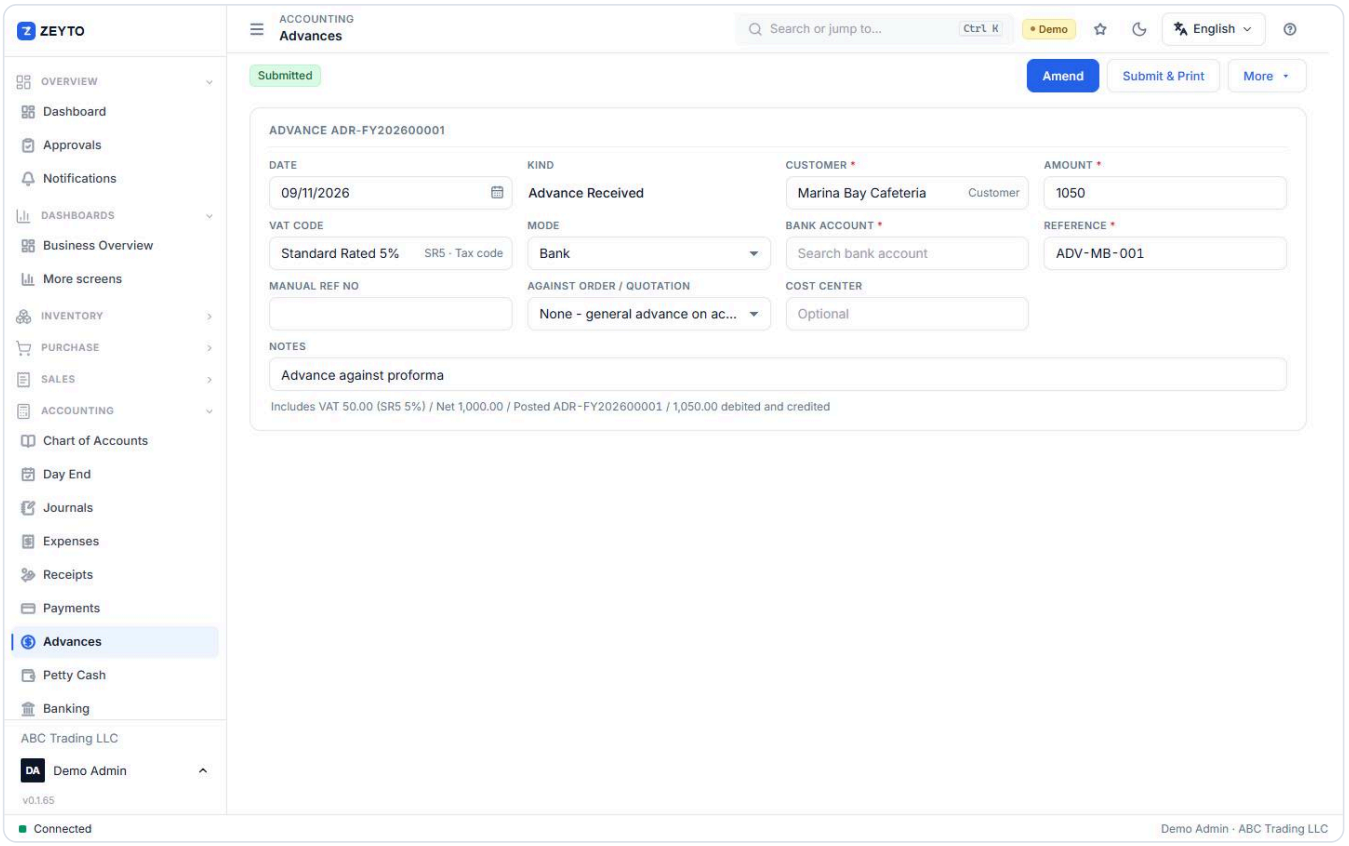
Settlement discount: the customer owes 105.00, pays 100.00 and you accept that with a Discount Allowed of 5.00.

ACCOUNT	DR	CR
1000 Cash in Hand	100.00	
6860 Discount Allowed	5.00	
1200 Trade Receivables		105.00
Total	**105.00**	**105.00**

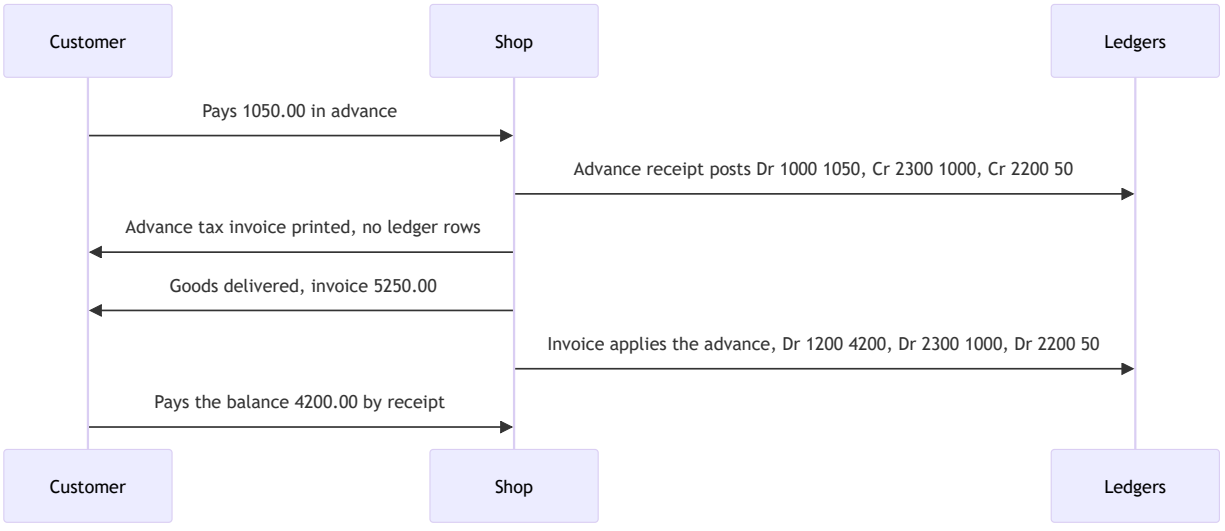
Not verified in code: which ledger account a PDC Cheque receipt debits before the cheque clears (the chart has 1210 PDC Receivable), and the accounting of an exchange difference when a foreign currency receipt is settled at a different rate than the invoice. The tests above all use cash receipts in the base currency.

Advances: money before the invoice

Two documents are involved and it matters which does what. The **advance receipt** moves the money and the books. The **advance tax invoice** is a paper tax invoice for the advance: it has the same figures and no ledger rows. You create the receipt from `Accounting ▸ Advances`, choose **Advance Received**, link it to a Sales Order or Quotation if you have one (Against Order or Quotation), pick the VAT Code (it starts at SR5) and press `Post Advance`. Then use `Sales ▸ Advance Tax Invoices` to issue the tax invoice. The printout is titled TAX INVOICE (ADVANCE).



An advance receipt. ADR-FY202600001, Submitted: kind Advance Received from Marina Bay Cafeteria, Amount 1050, VAT Code Standard Rated 5% (SR5), Mode Bank, Reference ADV-MB-001, Against Order / Quotation set to "None - general advance on account". The line under the form reads: Includes VAT 50.00, Net 1,000.00, Posted ADR-FY202600001, 1,050.00 debited and credited.



An advance, from receipt to final invoice. The VAT on the advance is declared when the advance is received. The final invoice takes that VAT back, so the VAT on the whole sale is counted once.

REAL EXAMPLE

Advance of 1,050.00, then an invoice of 5,250.00 (golden test W24_01)

The customer pays 1,050.00 in cash in advance. That is 1,000.00 net and 50.00 VAT (the VAT is 5/105 of the amount received).

ADVANCE RECEIPT	DR	CR
1000 Cash in Hand	1,050.00	
2300 Customer Advances		1,000.00
2200 VAT Output		50.00
Total	**1,050.00**	**1,050.00**

Later you invoice 5,000.00 plus 250.00 VAT, 5,250.00 in all, and apply the advance. The invoice debits the advance and the advance VAT back, and the customer owes the rest.

FINAL INVOICE	DR	CR
1200 Trade Receivables	4,200.00	
2300 Customer Advances	1,000.00	
2200 VAT Output (advance VAT taken back)	50.00	
4000 Sales		5,000.00
2200 VAT Output		250.00
Total	**5,250.00**	**5,250.00**

After both documents the VAT Output account stands at 250.00 credit, and Box 1 of the VAT return shows 5,000.00 taxable and 250.00 VAT, not 300.00. The cost of goods and stock rows are not in this example because the test used a service line.

Refunding an advance that was not used

If the customer cancels, you do not delete the advance. You issue an advance credit note (ACN), which posts the reverse. In the test, refunding a 525.00 advance (500.00 net plus 25.00 VAT) posts Dr 2300 500.00, Dr 2200 25.00, Cr 1000 525.00.

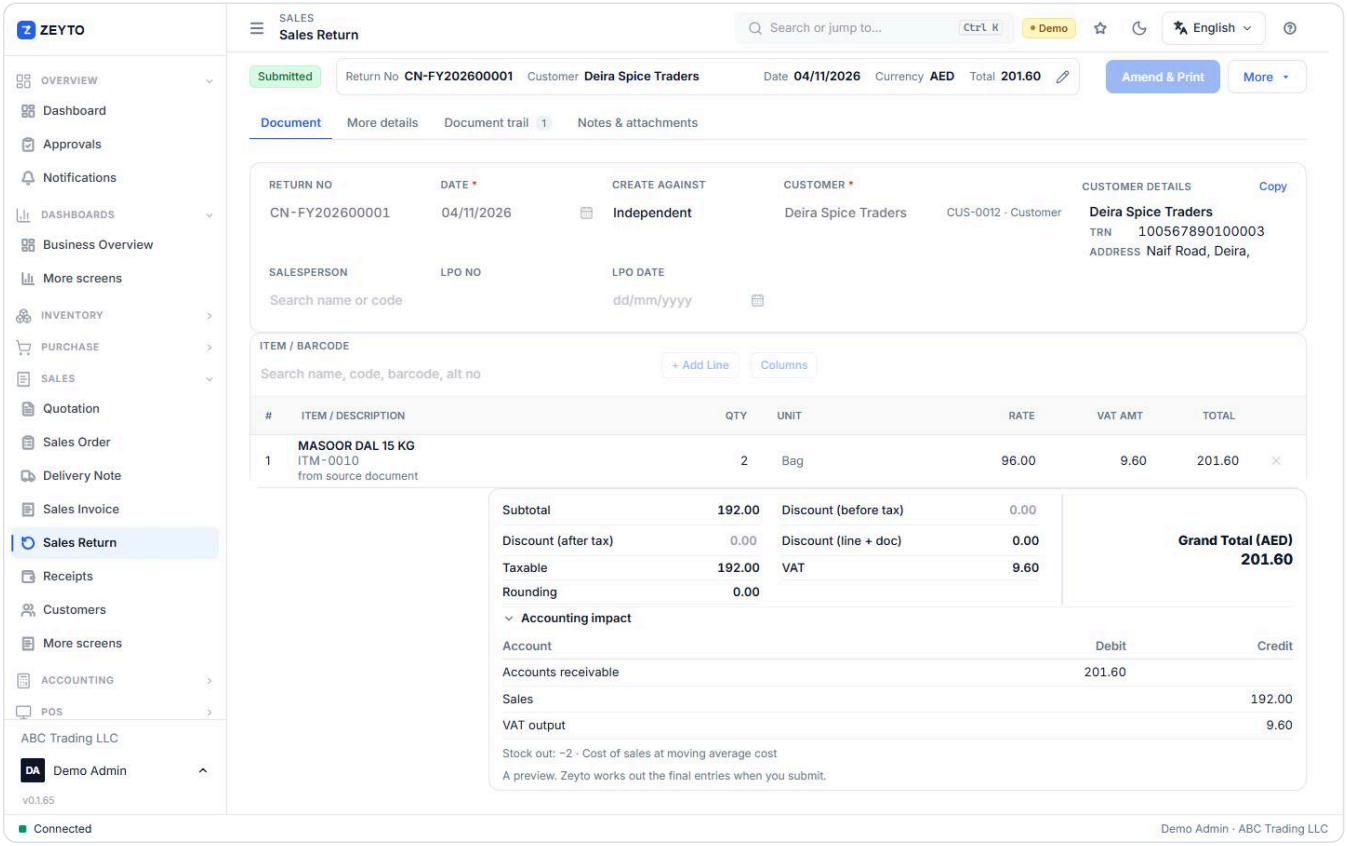
GUARDS YOU WILL MEET

An advance that has already been used cannot be refunded again (`ADVANCE_USED`). An advance can have only one live advance tax invoice (`TAX_INVOICE_EXISTS`). An advance linked to a Sales Order can be applied only on an invoice made from that order.

Not verified in code: the W24 document lists these as open: a refund of an advance in a foreign currency is untested, post-dated cheque advances are not enabled for the new documents, ACN and ADN do not appear in the generic voucher register, and the Arabic titles are not reviewed.

The Sales Return

Open the invoice, press `More ▾` then `Convert` to Sales Return, or start a return from `Sales ▸ Sales Return`. Each line carries a **Return** reason and an action: **Restock** puts the goods back on the shelf at their original cost, **Scrap** writes them off with no stock movement. The return cannot exceed what was invoiced less what was already returned (`SOURCE_BALANCE`). A return that is not linked to an invoice needs a reason (`RETURN_REASON`). The document prints as a credit note and is numbered CN-.



A submitted Sales Return. CN-FY202600001 for Deira Spice Traders: 2 bags of MASOOR DAL 15 KG at 96.00, subtotal 192.00, VAT 9.60, Grand Total 201.60. Under the item name the line carries the note "from source document". The Accounting impact table on this screen lists Accounts receivable 201.60 in the Debit column, Sales 192.00 and VAT output 9.60 in the Credit column, and the note "Stock out: -2".

> **DO NOT TRUST THE IMPACT PREVIEW ON A SALES RETURN**
>
> The Accounting impact table in the picture shows the direction of a sale: it debits the receivable and credits Sales and VAT, and it says stock goes out. A return does the opposite, as the journal below shows (Sales and VAT output debited, the receivable credited, stock back in). The preview is what is wrong on that screen. After you submit, open `More ▾` then `Postings` to read the real entries.

REAL EXAMPLE

Returning two pieces (golden test GS_SR_01)

The customer returns 2 pieces sold at 18.50. Net 37.00, VAT 1.85, total 38.85. The pieces go back to stock at their original cost of 10.00 each.

ACCOUNT	DR	CR
4100 Sales Returns	37.00	
2200 VAT Output	1.85	
1000 Cash in Hand (the refund)		38.85
1300 Inventory	20.00	
5000 Cost of Goods Sold		20.00
Total	**58.85**	**58.85**

The two `vat_entry` rows are negative (-37.00 and -1.85), so the VAT return falls by the same amounts. In the test the original invoice was a cash invoice, so the credit is the refund of cash. In the voucher matrix a linked return of a credit invoice credits 1200 Trade Receivables instead (75.00 net, 3.75 VAT, 78.75 total, cost 60.00), which lowers what the customer owes.

A standalone return of a scrapped item posts the sale side only: in test GS_SR_03, Dr 4100 18.50, Dr 2200 0.93 and Cr 1200 19.43, with no stock row.

Not verified in code: the rule that chooses Cash in Hand or Trade Receivables for the credit side of a return. Both outcomes are verified by tests, the choice is not traced. The voucher matrix also records an open finding (E1) about the direction of a VAT row on the Credit Note voucher type, which is a different document from this Sales Return. Ask the support team whether it is fixed in your release.

> Source: `src/Zeyto.Web/src/help/content/sales-other.ts`, `src/Zeyto.Web/src/help/content/accounting-vouchers.ts`, `tests/Zeyto.Tests/GoldenPostingTests.cs`, `tests/Zeyto.Tests/AdvanceTaxDocumentsTests.cs`, `docs/operations/w24-advance-tax-invoice-2026-11-06.md`, `docs/operations/voucher-matrix-sales-2026-11-04.md`, `src/Zeyto.Edge/Domain/PostingEngine.cs`

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6. Amend, cancel and the customer statement

A posted invoice is never edited in place and never deleted. You correct it in one of two ways, and both leave the old figures visible.

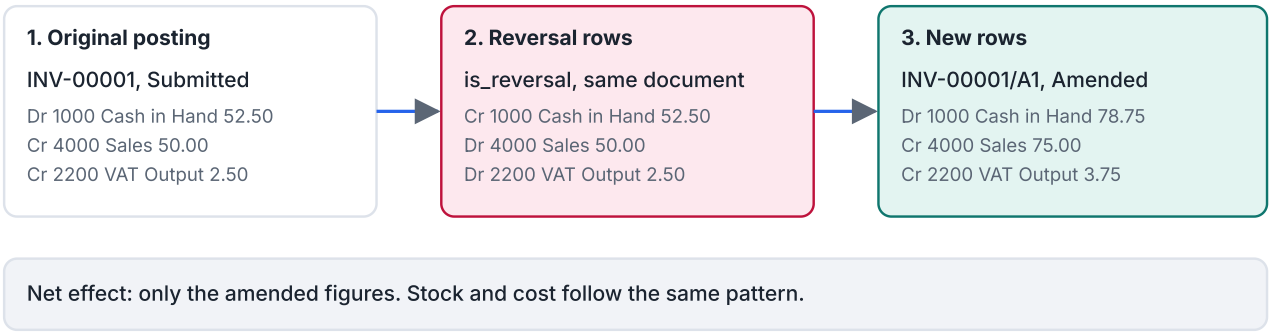
Amend

Use it when the document is right in principle and a figure is wrong: a quantity, a price, a date, a customer. Open the Submitted document, press the amend action, change what is wrong and submit again. The document keeps its number with a suffix: INV-00001 becomes INV-00001/A1, then /A2. Status becomes Amended.

Cancel

Use it when the document should not exist at all. Press `Cancel` in `More ▾`. Zeyto writes reversal rows for everything the document posted. The number is kept and is never reused. Status becomes Cancelled.

Amend works on the same document row. It writes a reversal of every row the old version posted (marked `is_reversal`) and then writes the rows of the new version. It never touches the old rows. So the ledgers read: original, its mirror image, then the corrected posting.



What Amend writes. The figures are the cash invoice of the voucher matrix, where an oil line went from 2 pieces to 3. Nothing is overwritten. The first posting stays in the ledger as history.

REAL EXAMPLE

Amending a cash invoice from 2 to 3 pieces (voucher matrix)

The invoice was 2 pieces at 25.00: net 50.00, VAT 2.50, cash 52.50, cost 40.00 (20.00 a piece). The customer takes a third piece. After the amendment the posting is 3 pieces: net 75.00, VAT 3.75, cash 78.75, cost 60.00.

ACCOUNT	ORIGINAL DR	ORIGINAL CR	REVERSAL DR	REVERSAL CR	AMENDED DR	AMENDED CR
1000 Cash in Hand	52.50			52.50	78.75	
4000 Sales		50.00	50.00			75.00
2200 VAT Output		2.50	2.50			3.75
5000 Cost of Goods Sold	40.00			40.00	60.00	
1300 Inventory		40.00	40.00			60.00
Total	**92.50**	**92.50**	**92.50**	**92.50**	**138.75**	**138.75**

Cash in Hand is now 78.75 higher than before the first sale (52.50 - 52.50 + 78.75). The golden test GS_INV_03 proves the same rule on a 10 piece invoice: 10 × 18.50 = 185.00 plus VAT 9.25 is 194.25, the reversal rows are the exact negative of the originals, and the document number becomes INV-00001/A1.

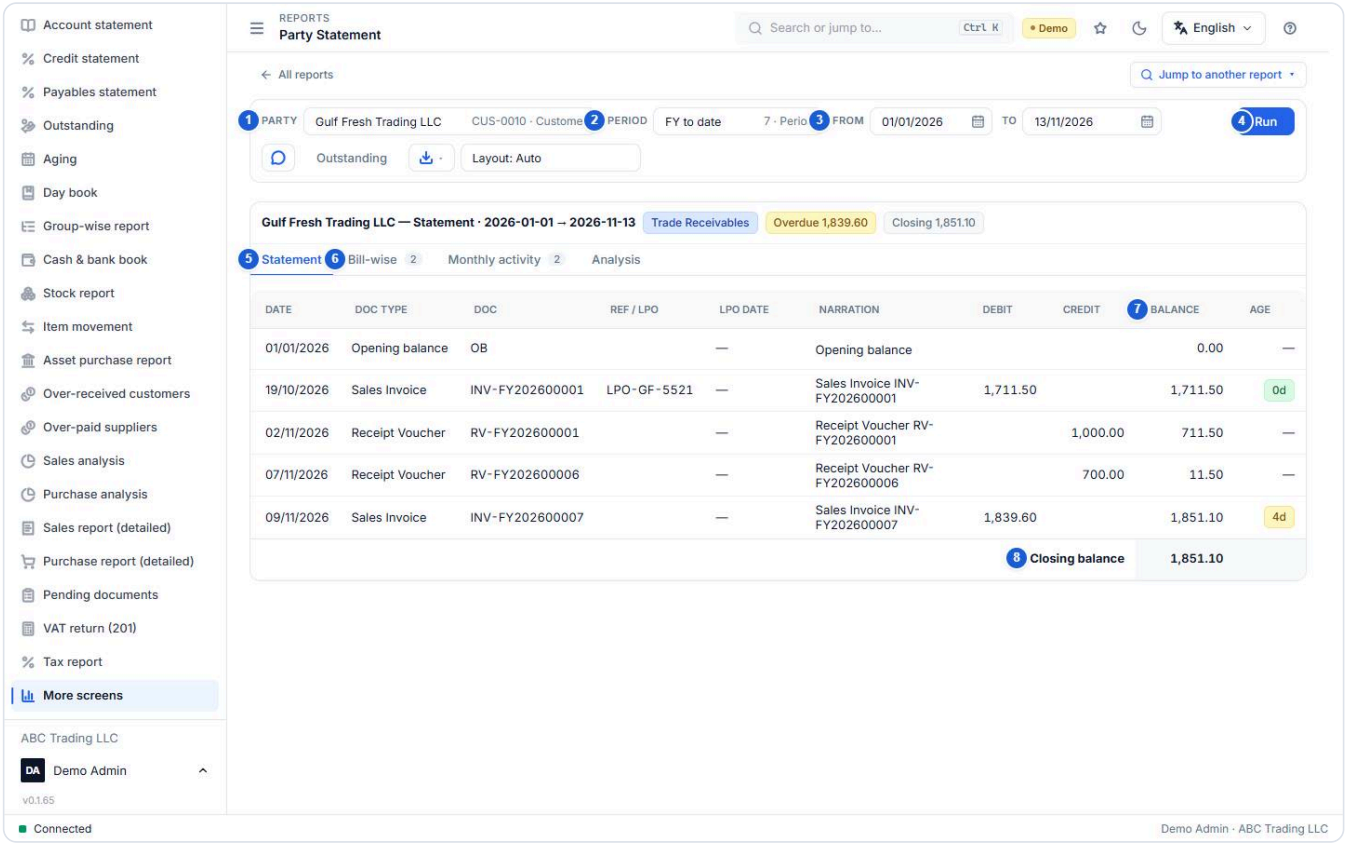
When Amend and Cancel are refused

- A source with a live child: cancel the child first (`CHAIN_CHILDREN`).
- An invoice that has a receipt allocated to it, a return made from it, or a VAT return period that is already filed. The help for the documents lists these as refusals. Cancel the receipt or the return first, or ask the accountant to reopen the period.

- A cancel rounds exactly like a submit. In test GS_INV_04 a cancelled invoice of 5 × 18.50 is 92.50 plus VAT 4.63 (4.625 rounded half up), 97.13 in all, and the reversal rows are for the same figures.

Reading the customer statement

Open the **Party Statement** report (`Reports ▸ Receivables & Payables ▸ Statements`), choose the party, the period and the From and To dates, and press `Run`. The result is one card with four tabs: **Statement** (every entry in date order with a running balance), **Bill-wise** (the open bills net of receipts), **Monthly activity** and **Analysis**. The tabs show how many rows they hold. **WhatsApp PDF** sends the statement to the customer, and the **Outstanding** button opens the Outstanding report. The **Age** column tags each unpaid document with how many days old it is.



The customer statement. Gulf Fresh Trading LLC from 01/01/2026 to 13/11/2026. The header chips read Trade Receivables, Overdue 1,839.60 and Closing 1,851.10. The Statement tab lists the opening balance 0.00, invoice INV-FY202600001 for 1,711.50, receipts RV-FY202600001 for 1,000.00 and RV-FY202600006 for 700.00, and invoice INV-FY202600007 for 1,839.60, with the balance after each line. The Age column shows 0d on the first invoice and 4d on the last.

1. PARTY: the typed picker for the customer.
2. PERIOD: a ready-made range, here FY to date.
3. FROM and TO: the dates, typed as DD/MM/YYYY.
4. Run: builds the statement for the party and dates above.
5. Statement: every entry in date order.
6. Bill-wise: the open bills net of receipts. The small number is how many bills there are.
7. BALANCE: the running balance after each line.
8. Closing balance: 1,851.10, the same as the Closing chip in the header.

The statement shows the **net view**: one line per document at its latest figure, so an amended invoice appears once as INV-00001/A1 with the right amount. The service behind the report can also return every posting (the `history=true` option), and the lines are then labelled **Original**, **Reversal of Original**, **Amendment A1** (A2, and so on) and **Cancellation**. The Party Statement screen has no box for that. The box **Show amendment history** is on the **Account statement** report, in the same report list. Tick it there when you need to see every posting. The closing balance is the same in both views.

TWO VAT LINES FOR ONE ADVANCE ARE NOT A DUPLICATE

When an invoice applies an advance, the statement can show an advance VAT row and the invoice row side by side. That is correct: the VAT on the advance was declared when the advance came in, and the invoice takes it back. The work in W55 found that the books were always right and fixed the display of amended documents in release 0.1.64.

Ageing: the Outstanding report

The report **Outstanding - Customer (bill-wise)** lists only invoices that still have a balance. Choose **As on**, and read the columns **Due**, **Received**, **Balance**, **Days Overdue** and the ageing buckets **0-30**, **31-60**, **61-90** and **90+**. The help warns that Days Overdue ignores payment, so read Balance first.

> Source: `src/Zeyto.Edge/Domain/PostingEngine.cs`, `tests/Zeyto.Tests/GoldenPostingTests.cs`, `docs/operations/voucher-matrix-sales-2026-11-04.md`, `docs/operations/w55-statement-duplicates.md`, `src/Zeyto.Web/src/help/content/sales-documents.ts`, `src/Zeyto.Web/src/help/content/reports-statements.ts`, `src/Zeyto.Web/src/help/content/reports-catalog-sales-purchase.ts`

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7. Prices, discounts, currencies, sales activity and commission

Price lists

Prices live in `Inventory ▸ Price Lists`. A list holds one rate per item and unit, optionally with a **Min Qty** so that bigger quantities get a lower rate. The rate a line starts from is the list's rate for that item and that unit. If the list has no rate, the line starts from the item's **Min Sales Price**. Zeyto does not stop you selling below it.

- A rate for the piece does not price the carton. A carton line with no carton rate uses the base price multiplied by the factor.
- The **Bulk Update** on a price list has no preview and no undo. Check a test sale afterwards.
- Choose the Price List on the document, or let the customer fill it (section 2).

Contradiction to resolve: the Customers help says the customer's Default Price List is saved only and that the invoice form does not use it, and the Price Lists help says the same. The form code (`customerDefaults.ts`) does fill the Price List and Salesperson from the customer when the customer is picked. This chapter follows the code. Check on a test invoice in your release.

Discounts

You give discounts on the document: **Disc %** or **Disc Amt** per line, and **Discount (before tax)** or **Discount (after tax)** on the whole document. The posting rows in section 3 show the effect. A user's role can cap the discount percentage they may give.

The screen **Discount Rules** stores promotions: percent, amount, coupon, quantity slab and buy-one-get-one, limited by dates, weekday, time band, branch, customer group and coupon. The POS till applies these rules automatically through the promotion engine and, when several rules are allowed to combine, adds them up; otherwise the best single rule wins, capped by the rule's maximum percentage.

Not verified in code: whether a Sales Invoice screen applies Discount Rules. The help for Discount Rules says the invoice screens do not, and it also says the POS does not, which the code contradicts (the POS calls `pos/promotions/evaluate`). Treat the help text as out of date for the POS and unproven for invoices.

Foreign currency

Choose the Currency on the document and the Rate fills in. The invoice is shown in the foreign currency and booked in the base currency at that rate (the matrix example: 50.00 USD at 3.6725 is 183.63 AED on Trade Receivables). Receipts take a Currency and a Rate too.

Sales Activity: before the quotation

The module **Sales Activity** tracks the work that leads to a quotation. It has its own tables (`sa_enquiry` , `sa_visit` , `sa_prospect` , `sa_month_plan` and related) and works offline on a phone, keeping unsent entries in the browser until it can send them. Its menu is under `Sales` :

SCREEN	WHAT YOU DO THERE
My Day	Today's visits, tasks and follow-ups for you.
Enquiries	Record what a customer or prospect asked for, with lines and events.
Monthly Plans	Plan visits and targets for the month.
Visits and Calls	Log each visit or call.
Prospects	People who are not customers yet.
Activity Reports	What the team did.
Activity Settings	Lookups, numbering and team set-up.

An enquiry moves through the statuses New, Under review, Quotation requested, Quoted, Under negotiation, Won, Lost and Closed. Lost and Closed need a reason from a list. Submitting a Quotation made for the enquiry moves it to Quoted, and submitting the order moves it to Won, so the sales chain in section 1 keeps the enquiry up to date by itself. Access is by the `salesact.*` permissions.

Commission: after the invoice

Commission turns invoices into a payable figure for the salesperson. Rules are set in `Settings ▸ Commission` . The statements are in `Sales ▸ Commission` (for managers) and `Sales ▸ My Commission` (for each salesperson). A statement moves through `Draft` , `Submitted` , `Approved` and `Paid` . It can be voided, and a payout can be reversed.

Not verified in code: the commission formula itself and how returns reduce it. This chapter lists the screens and statuses from the Commission help only.

> Source: `src/Zeyto.Web/src/help/content/inventory-masters.ts` , `src/Zeyto.Web/src/help/content/sales-other.ts` , `src/Zeyto.Web/src/help/content/sales-activity.ts` , `src/Zeyto.Web/src/help/content/sales-commission.ts` , `src/Zeyto.Web/src/screens/docs/customerDefaults.ts` , `src/Zeyto.Edge/Domain/PromotionEngine.cs` , `src/Zeyto.Edge/Api/PosPromotionsApi.cs` , `docs/operations/w41-sales-activity-2026-11-07.md` , `docs/operations/voucher-matrix-sales-2026-11-04.md`

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8. Check yourself and common mistakes

Check yourself

1. Post the cash invoice of section 3 in a test company. Open `More ▾` then `Postings` . You should see exactly the five rows of the journal: 241.50, 230.00, 11.50, 124.00, 124.00.

2. Open the Trial Balance. Total debits must equal total credits, before and after the invoice.
3. Make a credit invoice of 38.85. Open Outstanding - Customer (bill-wise). The invoice must be there with Balance 38.85. Receive 38.85 against it and refresh: it must disappear.
4. Make a Delivery Note and then an invoice from it. Check stock on hand: it must fall once, on the note. Check Cost of Goods Sold: it must rise once.
5. Amend an invoice, then open the Party Statement and the Account statement. On the Account statement tick and untick Show amendment history. The balance must be the same in every view.
6. Look at the VAT figures for a period with an advance and its final invoice. VAT Output must carry the VAT once (250.00 in the section 5 example, not 300.00).
7. Return one piece of a sold item with Restock. Stock on hand rises by one, and the VAT return falls by the VAT of that piece.

Common mistakes

SYMPTOM	CAUSE	FIX
You cannot cancel or amend a Delivery Note or Order. The message says "Cancel the invoice first."	A Submitted document was made from it (`CHAIN_CHILDREN`).	Cancel the document at the end of the chain first, then work backwards.
Convert is not offered on a quotation.	Only Submitted or Amended documents convert. A Draft or Cancelled one does not. Also Settings ▸ Document Workflow may have the link Off.	Submit the document. Check the Chain tab of Document Workflow.
The Sales Order still shows open quantity after you invoiced from a Proforma.	A Proforma links but never consumes quantity.	Invoice from the order or the Delivery Note.
A return is refused with SOURCE_BALANCE.	You are returning more than was invoiced less what was already returned.	Reduce the quantity, or check the earlier returns in the invoice's Flow chip.
A return that is not linked to an invoice is refused with RETURN_REASON.	A standalone return needs a reason on the line.	Fill the Return reason on the line.
The customer paid too much and the invoice shows no balance, but the customer also shows a credit.	The overpayment went to 2300 Customer Advances, not to Trade Receivables.	Apply the advance on the next invoice, or refund it.
The statement shows the same invoice two or three times.	You are on the Account statement with Show amendment history ticked, or on a release older than 0.1.64.	Untick it for the net view. The balance is right in both.
A carton line has the wrong price.	The price list has a rate for the piece only, so Zeyto used the base price times the factor, or the item's Min Sales Price is stored against the sales unit.	Add a carton rate in Price Lists, then test a sale. See the W56 note in section 2.

SYMPTOM	CAUSE	FIX
You tried to refund an advance and it was refused.	It was already applied to an invoice (`ADVANCE_USED`), or it has a live advance tax invoice (`TAX_INVOICE_EXISTS`).	Reverse the invoice that used it, or cancel the advance tax invoice first.
A sale went through although stock was zero.	Settings ▸ Costing, Negative Stock, starts on Warn.	Set it to Block if you want sales refused.

> Source: `tests/Zeyto.Tests/GoldenPostingTests.cs`, `tests/Zeyto.Tests/AdvanceTaxDocumentsTests.cs`, `src/Zeyto.Web/src/help/content/sales-documents.ts`, `src/Zeyto.Web/src/help/content/settings-finance.ts`, `docs/operations/w55-statement-duplicates.md`, `docs/operations/w56-item-units-barcode.md`

DAILY WORK

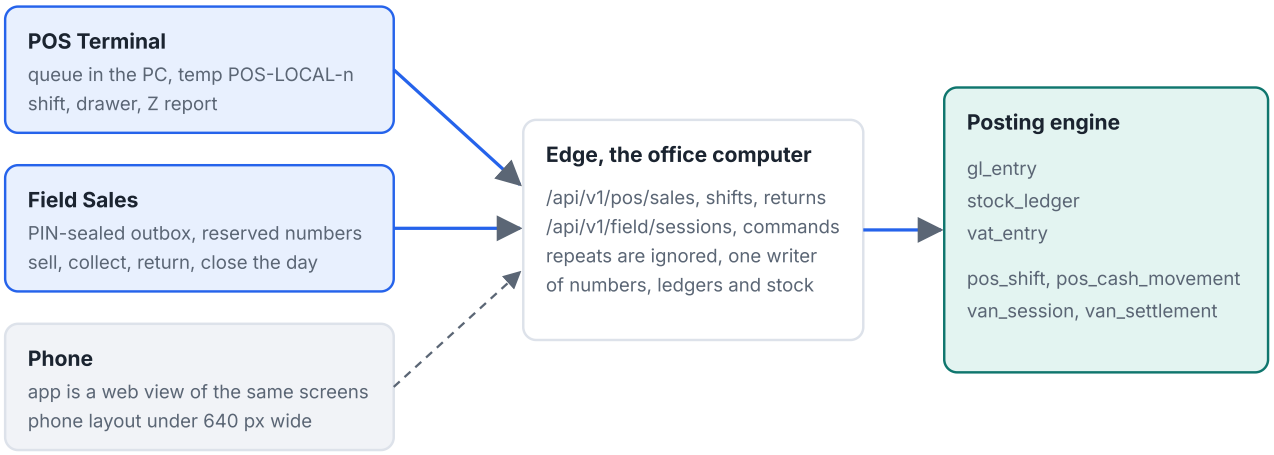
POS, Field Sales and the phone

After this chapter you can run a till shift from the opening float to the Z report, keep selling when the network is down, send a salesperson into the field with an offline day that settles cleanly, and pair a phone to the shop.

1. The big picture: three ways to sell, one set of books

Sales documents are written at a desk, in the office, on a good connection. Three other front ends exist for people who sell where the connection may fail. All three end in the same place: the Edge computer posts every sale through the same posting engine, so the trial balance, stock, VAT and statements do not care which front end made the sale.

FRONT END	WHO USES IT	OPENS AT	WHEN THE CONNECTION DROPS
POS Terminal	A cashier at a counter	`POS ▸ POS Terminal` (route `/pos`, a full-screen page outside the normal menus)	Keeps selling. Sales wait in a queue on the PC with a temporary number.
Field Sales	A salesperson visiting customers, with a van, a bag or a route	`Sales ▸ Field Sales` (route `/sales/field`)	Keeps selling, collecting and taking returns for the whole day. Documents wait in an encrypted outbox with final numbers already reserved.
Phone	Anyone with a mobile seat	The Zeyto mobile app, or the same web address in a phone browser	The app shows the web screens. Offline selling comes from Field Sales.



Three front ends, one writer. A till or a device never writes a ledger row itself. It sends a sale or a command and the Edge posts it. The dashed arrow means the phone app shows the same web screens, reached through the relay or the shop network.

Where the words differ, the table below says which screen each idea lives on.

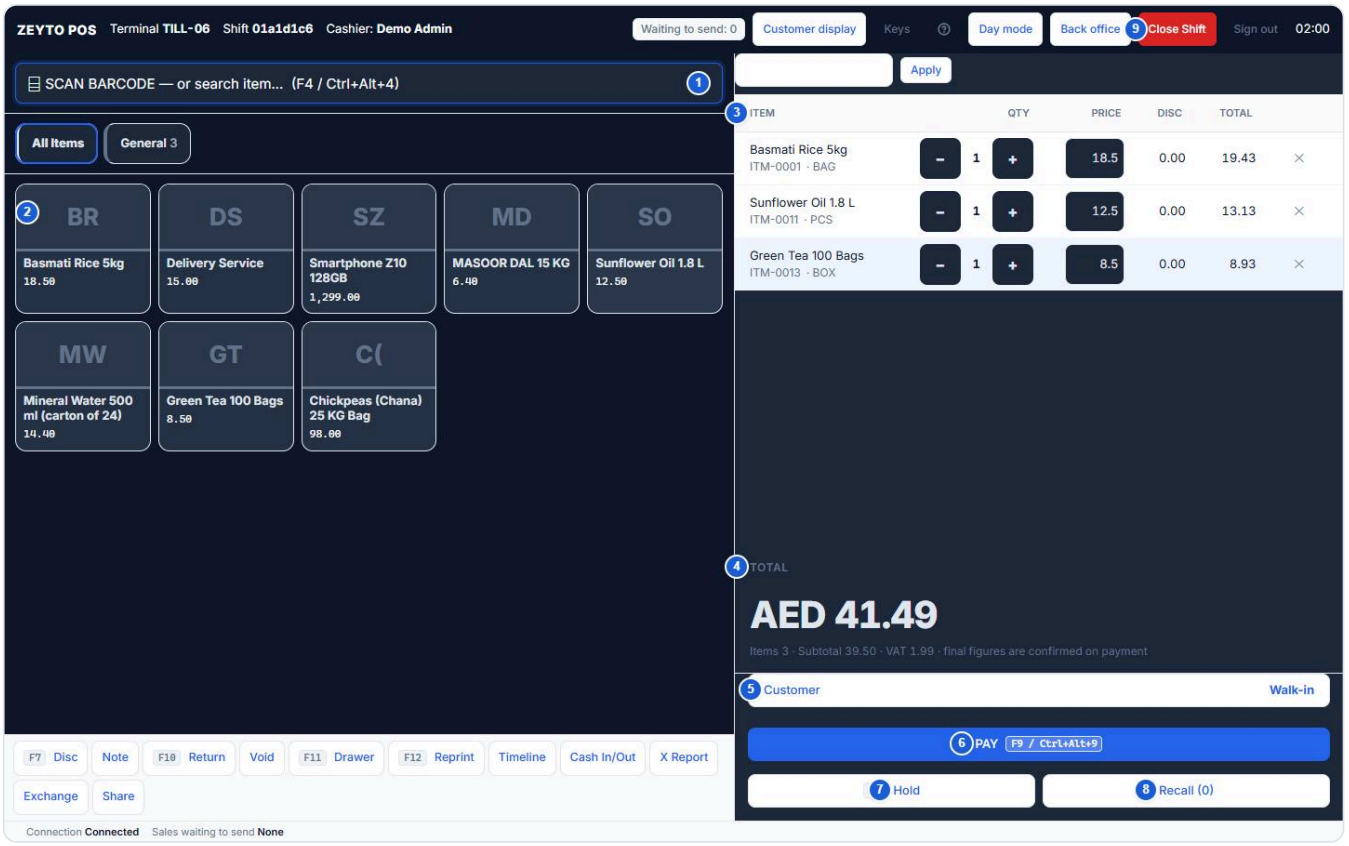
YOU WANT TO	GO TO
Ring up sales at a counter	`POS ▸ POS Terminal`

YOU WANT TO	GO TO
See every till receipt	`POS ▸ POS Receipts`
See shifts and their cash difference	`POS ▸ Shifts` and `POS ▸ Z Report`
Lock a day's till sales	`POS ▸ Day Close`
Watch overrides, line voids and reprints	`POS ▸ POS Audit`
Change how the till behaves	`Settings ▸ POS Behaviour` and `Settings ▸ POS Sale Extras`
Send a salesperson into the field	`Sales ▸ Field Sales`
See who is out, refuse a lost device	`Sales ▸ Field Sales Sessions`
Pair a phone	`Settings ▸ Remote & Mobile Access`

> Source: `src/Zeyto.Web/src/screens/nav.ts`, `src/Zeyto.Web/src/help/content/pos-vat-designers.ts`, `src/Zeyto.Web/src/help/content/sales-field.ts`, `docs/architecture/field-sales-sync-design.md`, `src/Zeyto.Edge/Api/PosApi.cs`, `src/Zeyto.Edge/Api/VanApi.cs`, `mobile/zeyto_mobile_skin/README.md`

2. The POS Terminal: open a shift and ring a sale

The terminal is the cashier's own screen. It has no sidebar, no menus and no document form. Everything the cashier needs is on one page: the scan box, the item tiles, the cart, the totals and a row of function keys.



The POS Terminal with a cart. Terminal TILL-06, shift reference 01a1d1c6, Cashier Demo Admin. The left pane has the scan box, the All Items and General category buttons and the item tiles. The right pane has the cart, the total, the customer, PAY, Hold and Recall. The row of buttons at the foot of the left pane reads F7 Disc, Note, F10 Return, Void, F11 Drawer, F12 Reprint, Timeline, Cash In/Out, X Report, Exchange and Share. The status line at the very bottom reads Connection Connected and Sales waiting to send None.

1. SCAN BARCODE or search item: the scan box. `F4` or `Ctrl+Alt+4` puts the cursor back here.
2. Item tile: tap to add one of that item. Each tile shows the name and the price.
3. Cart lines: the - and + buttons change the quantity, the Price is a box you can type over, then Disc and Total, and a cross removes the line.
4. TOTAL: AED 41.49. Under it are the item count, the subtotal 39.50 and the VAT 1.99, with the note that final figures are confirmed on payment.
5. Customer: Walk-in until you pick one.
6. PAY: opens the payment panel (`F9` or `Ctrl+Alt+9`).
7. Hold: parks the cart so you can serve the next customer.
8. Recall: brings a held cart back. The number in brackets is how many are held.
9. Close Shift: ends the shift and opens the count.

The header carries the terminal, the short shift reference and the Cashier on the left. On the right are the **Waiting to send** chip, **Customer display**, **Keys**, a help icon, a button that switches between night and day colours (it reads **Day mode** while the terminal is dark and **Night mode** while it is light), **Back office**, **Close Shift**, **Sign out** and the clock. Where the shop uses them, the header also shows the optional **Sale cashier** and **Salesman** boxes, and a **LOCAL SHIFT** tag when the shift is only on this PC. The layout in the picture is one of three: Settings ▸ POS Behaviour chooses Search only (scanner), Tiles and search, or Compact tiles.

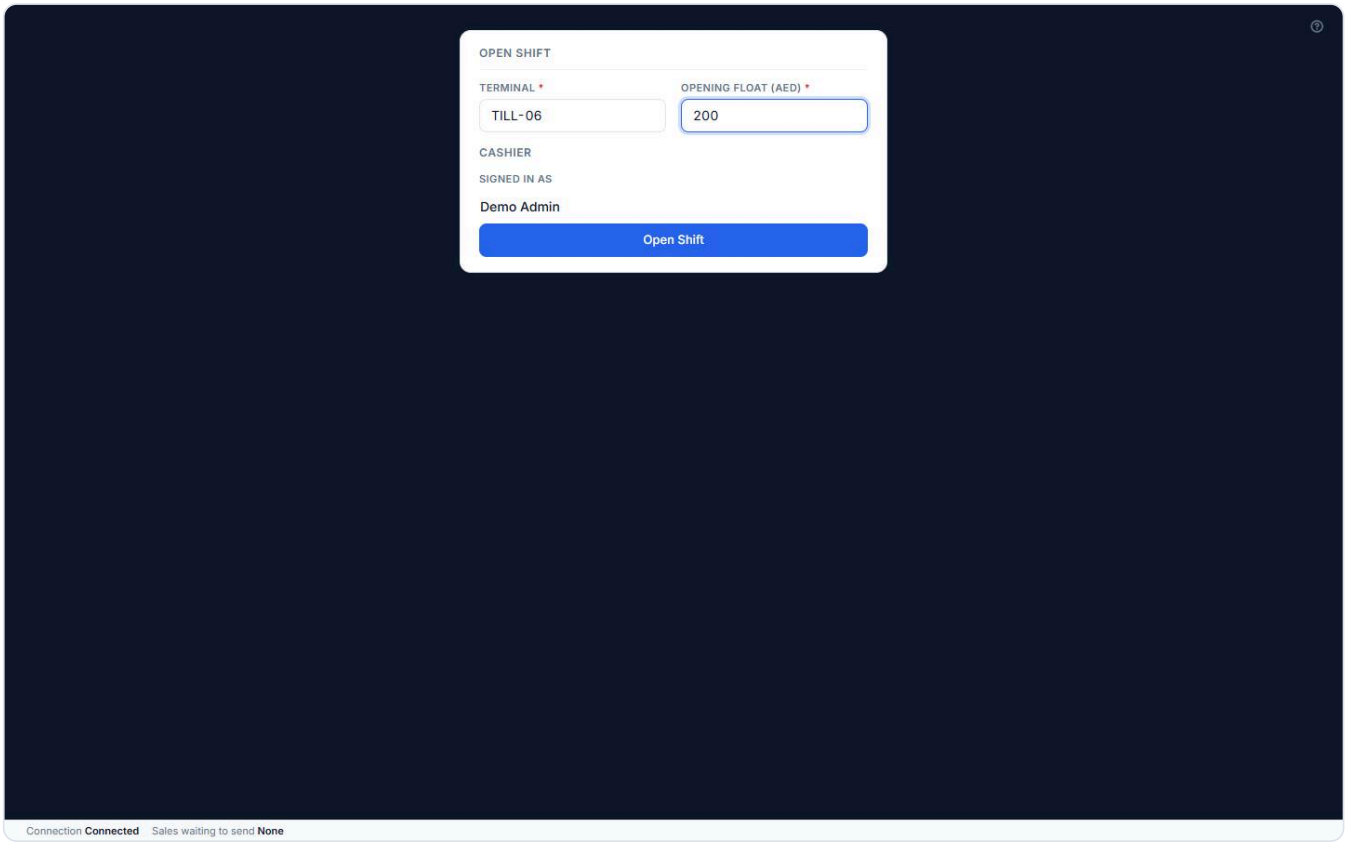
Open the shift

1. **Sign in with your PIN.** On the sign-in page open the **POS PIN** tab. Type your **Username**, your **PIN** and the **Terminal** name (for example POS-01), then press `Open POS`. The PC

remembers the terminal name.

2. **Open the shift.** The Open Shift page shows the Terminal, **Opening Float (AED)** and **Signed In As**. Type the cash you put in the drawer and press `Open Shift`. A terminal can have only one open shift at a time.

3. **Check the strip.** The header now shows the terminal, a short shift reference (the first 8 characters of the shift id) and your name as Cashier.



The Open Shift page. The card asks for the Terminal (here TILL-06) and the Opening Float in AED (here 200). Under Cashier it shows who is signed in, Demo Admin, and one blue Open Shift button. The status line at the foot reads Connection Connected and Sales waiting to send None.

> **A SHIFT KEEPS THE DATE IT WAS OPENED**
>
> Every receipt sold on a shift takes the shift's opening date, even after midnight. So close the shift each night. Otherwise the sales of the next morning fall into yesterday's day and VAT period.

Ring a sale

1. **Add items.** Scan a barcode, or type a code or name in the scan box and press `Enter`. An exact code or barcode match is added at once, otherwise the first item shown. `F4` puts the cursor back in the box. You can also tap an item tile. Each scan adds one. To add several, type a quantity then `*` then the barcode, for example `3*` followed by the scan. Use + and - on a line to change the quantity.

2. **Check a price without selling.** `F3` switches on price check mode: a scan shows the item's price.

3. **Discount a line.** Click the line, press `F7` and type the percent. You can also type over the Price. A user who may not change prices, or who types a discount above their limit, has the sale refused with a message.

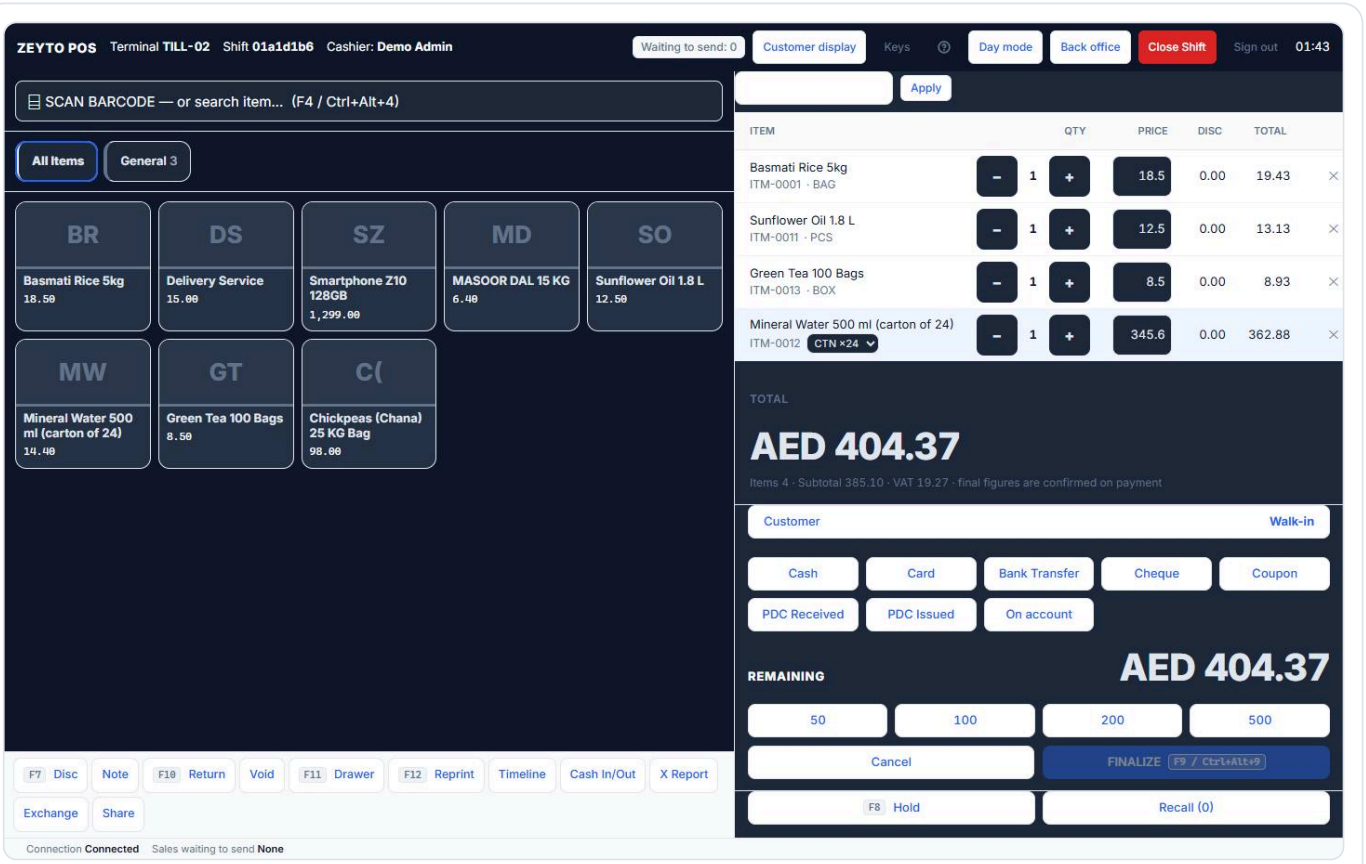
4. **Choose the customer, if any.** The Customer box starts as Walk-in. Tap it to search a customer, or create one (name, phone, optional TRN) without leaving the sale. If **Prompt for customer on sale** is on in Settings ▸ POS Behaviour, `PAY` asks once for a customer first.

5. **Pay.** Press `PAY (F9)` and tap a payment mode. Its amount starts as what is still to pay. For cash, tap a quick-cash note or type the amount handed over.

6. **Split if needed.** Tap a second mode and adjust the amounts until **REMAINING** reaches zero. A mode that needs a reference, such as a card or cheque, asks for a Ref no.

7. **Finish.** When the panel says **SETTLED** or **CHANGE**, press `FINALIZE` (or `F9`). The receipt prints, the cart clears and you hand over the change shown. For exact cash press `F9` twice with nothing typed.

Two special payments. **On account** sells on credit: the amount goes to the customer's receivable, not the drawer. It needs a customer, so a walk-in sale opens the customer box. If the customer is over the credit limit Zeyto warns you and asks you to confirm, or refuses the sale when Credit Control is set to block. An on-account sale to a customer created at the till also needs a manager's approval. **Tip** appears on the pay panel when Settings ▸ POS Sale Extras has Take tips at the till ticked. The tip is booked to a Tips Payable liability account, not to sales.



The payment panel. Four items are in the cart for AED 404.37 (subtotal 385.10, VAT 19.27). The Mineral Water line shows a unit picker set to CTN x24. Under the Customer box (Walk-in) are the payment modes of the demo company: Cash, Card, Bank Transfer, Cheque, Coupon, PDC Received, PDC Issued and On account. Below them REMAINING shows AED 404.37, then the quick cash buttons 50, 100, 200 and 500, then Cancel and FINALIZE. FINALIZE is greyed out until the payments cover the total.

Keys on the terminal

KEY	ACTION
`F1`	Opens the POS help.
`F3`	Price check mode.
`F4`	Cursor into the scan box.
`F7`	Discount percent for the selected line.
`F8`	Hold the cart.
`F9`	Open the pay panel. Pressed again with nothing entered: exact cash and finish. With the payments settled: finalize.
`F10`	Return mode on or off.
`F11`	Open the cash drawer.
`F12`	Reprint the last receipt.
`Esc`	Close the pay panel and keep the cart.
`Ctrl+/`	Shows the key list.

In a plain browser tab, where the browser keeps some function keys, hold `Ctrl` and `Alt` and press the number: `Ctrl+Alt+9` for F9, `Ctrl+Alt+0` for F10, `Ctrl+Alt+-` for F11 and `Ctrl+Alt+=` for F12.

REAL EXAMPLE

A sale paid three ways (golden test GS_PAY_01)

Five pieces at 18.50 each. Net 92.50, VAT 4.63 (4.625 rounded half up), total 97.13. The stock was bought at 10.00 a piece. The customer pays 50.00 in cash, 30.00 by card and the rest with a coupon worth 17.13. Each tender debits the account of its own payment mode.

ACCOUNT	DR	CR
1000 Cash in Hand	50.00	
1110 Card Clearing	30.00	
6850 Coupon Redemptions	17.13	
4000 Sales		92.50
2200 VAT Output		4.63
5000 Cost of Goods Sold	50.00	
1300 Inventory		50.00
Total	**147.13**	**147.13**

The receipt is numbered POS-00001. It is a simplified tax invoice, so it is a posted document the moment you finalize. Stock for five pieces leaves the shift's branch warehouse and the VAT goes on the return like any invoice VAT.

Receipts and printing

After a sale the receipt prints, or waits on screen as Receipt ready with Close and Print buttons when **Auto-print receipt on sale** is off in Settings ▸ POS Behaviour. **Copies (1-9)** says how many copies one print job holds. `F12` reprints the last receipt of this terminal, including a sale saved offline, and each reprint is written to **POS Audit**. **Share** opens a sheet where you type the Receipt number and send a copy on, and the reprint sheet asks "Why is a copy needed?". The list of all receipts is `POS ▸ POS Receipts`. A receipt there has no Edit button. A wrong one is voided at the till (same shift) or refunded.

Not verified in code: the accounting of an Exchange. The Exchange button opens a sheet where you pick the Receipt being exchanged, set the return quantity of each line, scan the new items and tender the difference, and the Edge has a `pos/exchanges` endpoint. This chapter did not trace the journal it posts.

> Source: `src/Zeyto.Web/src/screens/pos/PosTerminal.tsx`, `src/Zeyto.Web/src/screens/pos/ShiftGate.tsx`, `src/Zeyto.Web/src/screens/pos/KeyMap.tsx`, `src/Zeyto.Web/src/screens/pos/Receipt.tsx`, `src/Zeyto.Web/src/help/content/pos-vat-designers.ts`, `src/Zeyto.Web/src/help/content/settings-operations.ts`, `docs/operations/w39-pos-layout-2026-11-07.md`, `tests/Zeyto.Tests/GoldenPaymentTests.cs`

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3. Returns, voids, held carts and cash in and out

These are the actions a cashier uses when a sale does not go as planned. Each one writes to the same ledgers as a sale, and each one that can leak money asks a manager.

Refund (F10)

For goods a customer brings back. It posts a Sales Return, printed as a credit note and numbered CN-. It needs a manager's username and POS PIN.

Void

Cancels a whole receipt of the shift that is open now. Everything it posted is reversed. An older receipt must be refunded instead.

Hold (F8) and Recall

Parks a cart so the next customer can be served. Held carts are kept on this PC only.

Cash In/Out

Records cash that enters or leaves the drawer without a sale: a float top-up, milk for the staff room.

Refund goods

1. **Switch to return mode.** Press `Return (F10)`. A red bar says RETURN MODE.
2. **Scan what came back**, as for a sale.
3. **Say why.** Choose the **Reason**: Customer Return, Damaged, Wrong Item, Price Correction or Warranty. Choose the **Action**: **Restock** puts the items back in stock, **Scrap** refunds the customer but does not return the items to stock.
4. **Name the receipt, if you have it.** Type its number in **Receipt No** (**Last** fills in the last receipt). When you give it, Zeyto will not refund more of an item than that receipt sold and has not already had returned.
5. **Get the manager.** The manager types their username in **Manager** and their POS PIN in **PIN**. They do not have to be signed in. The cashier needs the permission `pos.refund` and so does the manager.
6. **Pay it back.** Press `REFUND (F9)`, choose how the money goes back, and press `FINALIZE REFUND`.
7. **Leave return mode.** Return mode stays on after a refund. Press `F10` again before the next sale.

REAL EXAMPLE

A cash refund of one piece (golden test GS_POS_01C)

The drawer started with a float of 100.00. One piece was sold for cash: 18.50 plus VAT 0.93 (0.925 rounded half up) is 19.43. The customer returns it, with a reason, a manager PIN and Restock. The piece cost 10.00.

ACCOUNT	DR	CR
4100 Sales Returns	18.50	
2200 VAT Output	0.93	
1000 Cash in Hand		19.43
1300 Inventory	10.00	
5000 Cost of Goods Sold		10.00
Total	**29.43**	**29.43**

The document is numbered CN-. On the Z report that shift shows Returns 19.43 and a cash refund of 19.43, and the expected cash is 100.00: the float, plus the cash sale of 19.43, minus the refund of 19.43.

Contradiction between help and code: the POS Terminal, Shifts and Z Report help pages say that refunds are not counted in the shift figures, that the Z report Returns line is always 0.00, and that a cash refund makes the drawer count short. The code and the test above do the opposite: expected cash subtracts cash refunds, and the Z report has Returns and a cash refunds line. This chapter follows the code. The help pages need updating.

Void a wrong receipt

1. **Open the void panel.** Press `Void`.
2. **Identify the receipt.** Type the **Receipt No** (**Last** fills in the last one) and choose a **Reason**: Wrong Bill, Customer Changed Mind, Payment Entry Error, Duplicate Receipt or Cashier Mistake.
3. **Get the manager** to type their username and POS PIN. The permission is `pos.cancel`.
4. **Press Void Receipt.** The receipt becomes Cancelled and everything it posted is reversed, stock and VAT included. The Z report then leaves it out. A tip on the receipt and its serial numbers are reversed too.

Hold a cart and recall it

Press `F8`. The cart is saved and the screen clears. Later press `Recall`, which lists the held carts with their number of lines and the time each was held, and click one. The cart on screen must be empty first. Held carts live in the browser storage of this PC, so they are not visible from another till.

Cash In and Cash Out

Press `Cash In/Out`. Choose the **Kind**, Paid in or Paid out, type the **Amount**, pick the **Counter account** and type a **Reason**. The movement posts a journal at once and appears on the X report and the Z report. A paid out above the limit set in Settings

needs a manager's credentials. When the server cannot be reached the movement waits in an offline queue, which you can see and discard from the same overlay.

The **X Report** button gives a mid-shift report. It closes nothing.

Line control and the audit

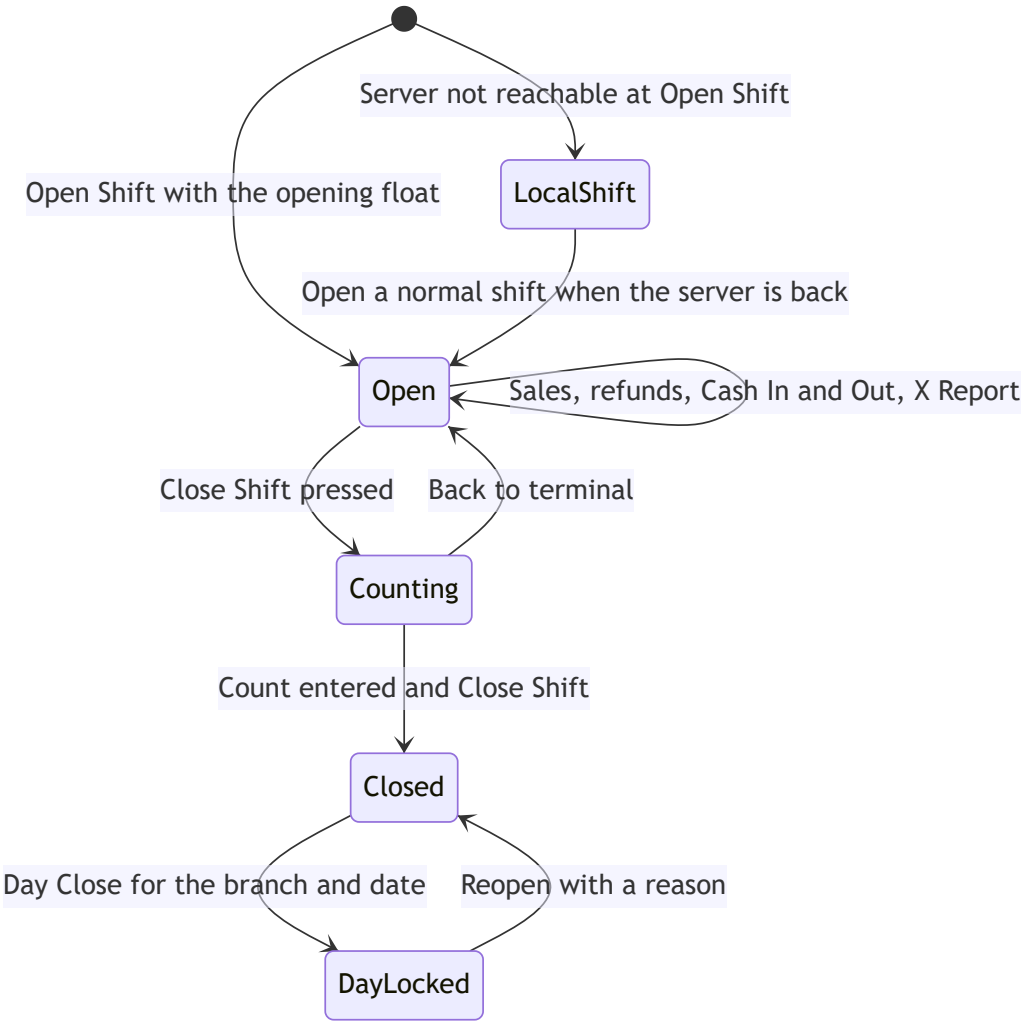
Four till actions can be governed in `Settings ▸ POS Behaviour`, in the **Line Control** card: **Price override**, **Line void**, **Manual line discount** and **Receipt reprint**. For each you choose how strict to be: free, ask for a reason, or ask for a manager PIN. Price override and manual discount also have a percentage above which the PIN is asked. Whatever you choose, every one of these actions is written to `POS ▸ POS Audit`, with the cashier, the terminal, what changed and who approved it. The audit lines cannot be changed or deleted afterwards.

> Source: `src/Zeyto.Web/src/screens/pos/PosTerminal.tsx`, `src/Zeyto.Web/src/screens/pos/CashMovements.tsx`, `src/Zeyto.Web/src/screens/pos/XReport.tsx`, `src/Zeyto.Web/src/screens/pos/ExchangeSheet.tsx`, `src/Zeyto.Web/src/screens/settings/LineControlSettings.tsx`, `src/Zeyto.Web/src/help/content/pos-vat-designers.ts`, `src/Zeyto.Edge/Api/PosApi.cs`, `src/Zeyto.Edge/Api/PosCashApi.cs`, `tests/Zeyto.Tests/GoldenPaymentTests.cs`

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4. Shifts, the cash drawer and the Z report

A shift is one cashier's session on one terminal, from Open Shift to Close Shift. It is the unit of cash control. The shift records the opening float, every cash movement and, at the end, the cash the cashier counted. The difference between counted and expected cash is posted as a journal.



The life of a shift. Counting is the Close Shift screen: nothing is posted until you press Close Shift. A LOCAL SHIFT is a placeholder on one PC: closing it records no cash count on the server and it produces no Z report.

What the drawer should hold

Zeyto works out the expected cash with one formula (`PosCashMath`):

Expected cash = opening float + cash sales - cash refunds + paid in - paid out

The variance is **counted cash - expected cash**. A negative number is a shortage, a positive one an overage. Card, coupon and on-account tenders never enter the cash figure.

REAL EXAMPLE

A shift with a paid out and a paid in (golden test GS_POSCASH_01)

The shift opens with a float of 100.00. The cashier sells 105.00 in cash. Later the cashier takes 20.00 out of the drawer for milk for the staff room and puts 5.50 in as a float top-up from the safe.

STEP	AMOUNT	EXPECTED CASH AFTER
Opening float	100.00	100.00
Cash sale	+105.00	205.00
Paid out: Milk for the staff room	-20.00	185.00
Paid in: Float top-up from the safe	+5.50	190.50

The two movements post these journals:

PAID OUT	DR	CR
6900 Miscellaneous Expenses	20.00	
1000 Cash in Hand		20.00
Total	**20.00**	**20.00**

PAID IN	DR	CR
1000 Cash in Hand	5.50	
4900 Other Income		5.50
Total	**5.50**	**5.50**

The cashier counts 190.50. The variance is zero, so closing the shift posts no extra journal. The X report, the Z report and the ledger agree to the last digit.

REAL EXAMPLE

Closing three pieces short (golden test GS_POS_01)

Float 100.00. One cash sale of two pieces at 18.50: net 37.00, VAT 1.85, 38.85. Expected cash is 138.85. The cashier counts 135.00. The variance is 135.00 - 138.85 = -3.85. Closing posts one journal (JV-00001 in the test):

ACCOUNT	DR	CR
6900 Miscellaneous Expenses (cash shortage)	3.85	
1000 Cash in Hand		3.85
Total	**3.85**	**3.85**

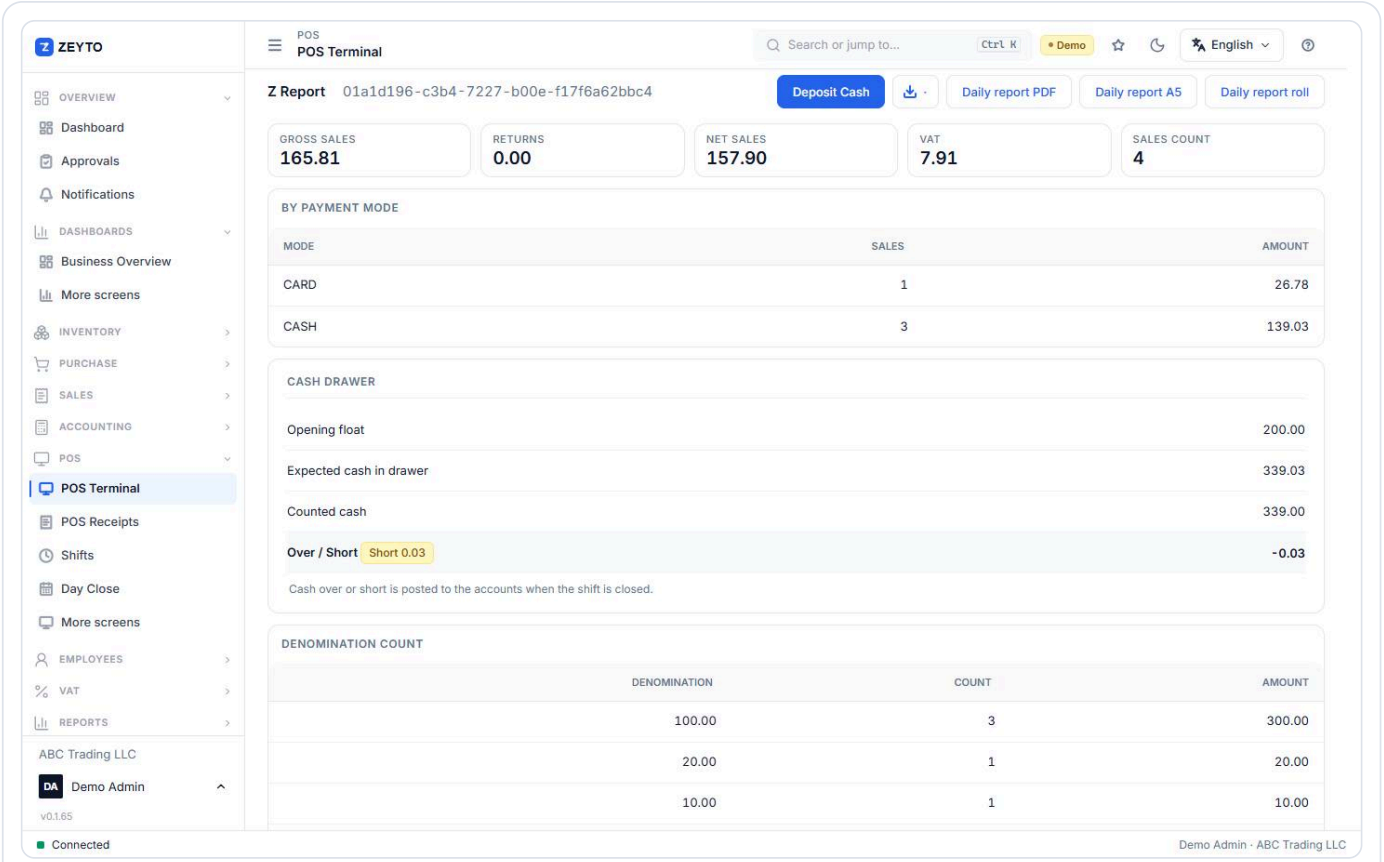
An overage is the mirror: Dr 1000 Cash in Hand, Cr 4900 Other Income. A second test (GS_POSCASH_02) closes a shift with float 50.00 and a paid out of 12.00: expected 38.00, counted 35.00, shortage 3.00.

Close the shift

1. **Press Close Shift** at the top right. The terminal shows a Z preview.
2. **Count the drawer.** Type how many notes and coins of each kind you have. Check the **Counted total** and the **Over / Short (preview)**. When Blind count is on in settings, the expected cash is hidden until your count is in.
3. **Get approval when needed.** If the shortage or overage is larger than the limit set under Cash Control, a manager must approve it with their PIN.
4. **Press Close Shift.** The screen reads "Shift Closed - Z Report". Any variance is posted at once.

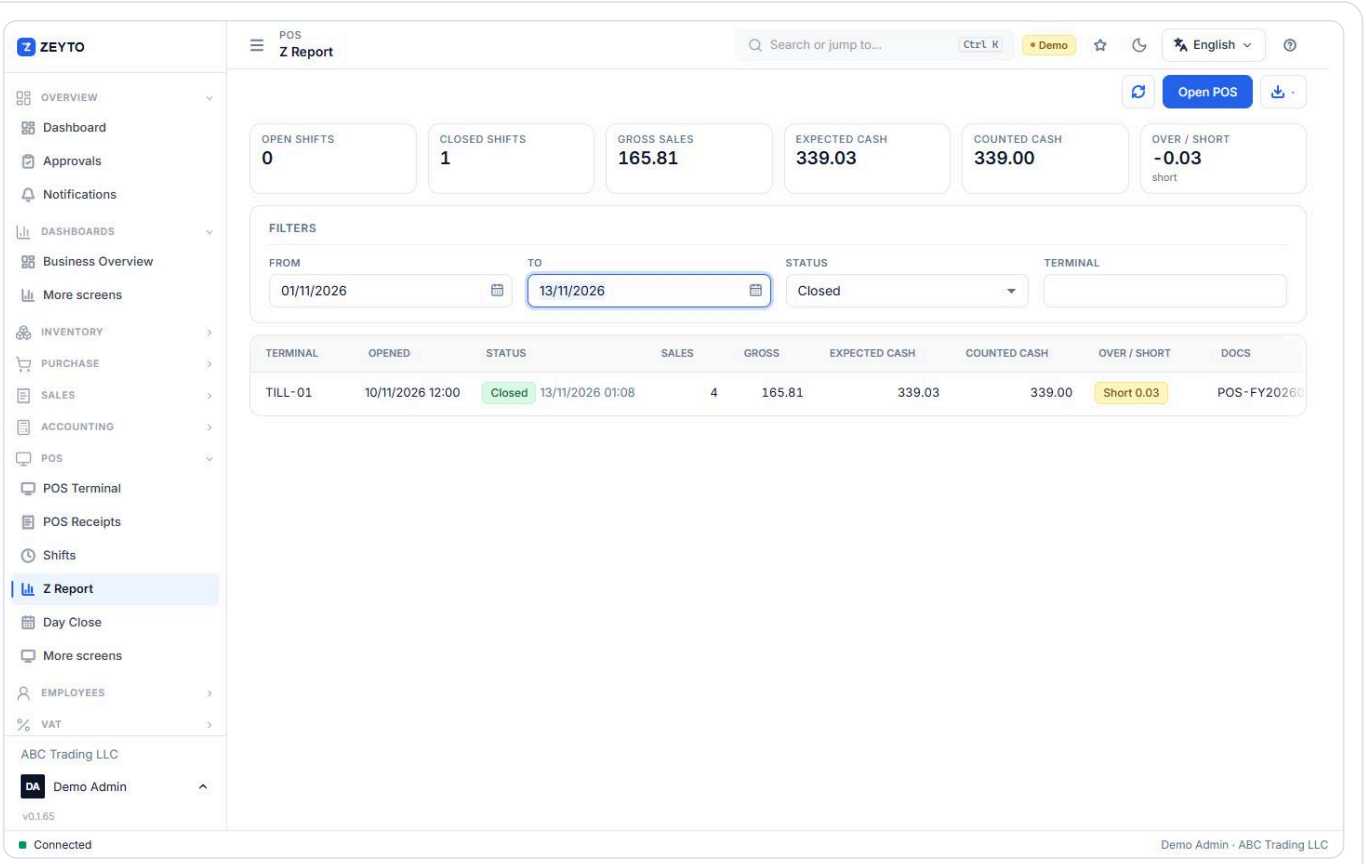
The Z report

The Z report has five tiles: **Gross Sales**, **Returns**, **Net Sales**, **VAT** and **Sales Count**. Under them are **By Payment Mode**, a **Cash Drawer** block and the **Denomination Count** the cashier typed. The Cash Drawer block always shows **Opening float**, **Expected cash in drawer**, **Counted cash** and **Over / Short**. The rows for cash refunded to customers, paid in and paid out appear only when they are not zero. The top of the page has an export menu and the buttons **Daily report PDF**, **Daily report A5** and **Daily report roll**. The Z snapshot is stored with the closed shift, so it never changes afterwards. Find old ones at `POS ▸ Z Report`, or at `POS ▸ Shifts` with the Status filter.



A Z report. A closed shift with 4 sales. The tiles read Gross Sales 165.81, Returns 0.00, Net Sales 157.90, VAT 7.91 and Sales Count 4. By Payment Mode lists CARD with 1 sale for 26.78 and CASH with 3 sales for 139.03. The Cash Drawer block reads Opening float 200.00, Expected cash in drawer 339.03, Counted cash 339.00 and Over / Short 0.03 short (-0.03). The note under it says cash over or short is posted to the accounts when the shift is closed. The Denomination Count starts with 3 notes of 100.00, 1 of 20.00 and 1 of 10.00. There were no refunds or cash movements on this shift, so those rows are not shown.

Check the drawer figure yourself: 200.00 opening float plus 139.03 of cash sales is 339.03. The cashier counted 339.00, so the shift is 0.03 short, and closing it posts that small variance.



The Z Report list. The tiles read Open Shifts 0, Closed Shifts 1, Gross Sales 165.81, Expected Cash 339.03, Counted Cash 339.00 and Over / Short -0.03 (short). The filters are From, To, Status and Terminal. The one row is terminal TILL-01, opened 10/11/2026 12:00 and closed 13/11/2026 01:08, with 4 sales and a short of 0.03. The Open POS button is at the top right.

Cash control settings

Open `Settings ▸ POS Behaviour` and find the **Cash Control** card.

SETTING	EFFECT
Blind count when closing a shift	The cashier counts without seeing the expected cash. Only a user with the POS cash approval permission can see it while the shift is open.
Closing variance needing a manager (AED)	A shortage or overage above this amount needs a manager PIN. 0 means never ask.
Paid out needing a manager (AED)	A paid out above this amount needs a manager PIN. 0 means never ask.
Accounts a paid in / paid out may use	Account codes, comma separated. Blank uses the chart defaults.

The rest of **POS Behaviour** covers Receipt Printing (auto-print and Copies 1 to 9), Cash Drawer (Open drawer: On every cash sale, On demand only (F11) or Never open automatically; the Windows printer name; Drawer connector Pin 2 or Pin 5), Quick-Cash Notes (up to eight amounts), and Sale Behaviour (Round cash total to nearest 0.25, which only affects the F9 whole-bill cash shortcut, and Prompt for customer on sale). **POS Sale Extras** adds the Salesman and Commission options, Tips, and EAN-13 scale labels for weighed items. These settings change what happens at the till. They never change the amounts posted.

Day Close

The manager's last step each evening is `POS ▸ Day Close`. Choose the **Date** and **Branch**, optionally type **Cash Counted** for the whole day, and press `Run Day Close`. It refuses while any shift of that date is still open, and when there is no closed shift at all. It posts nothing to the accounts, because the over and short were posted when each shift closed. It records the totals and locks the day: no more receipts, refunds, voids, shifts or shift closes can be posted for that branch and date. `Reopen` needs a reason of at least five characters and the permission `security.amend`, and the day shows Reopened until you run Day Close again. If the Daily Business Summary is on in Settings ▸ Sharing, closing the day queues the summary for the recipients set there.

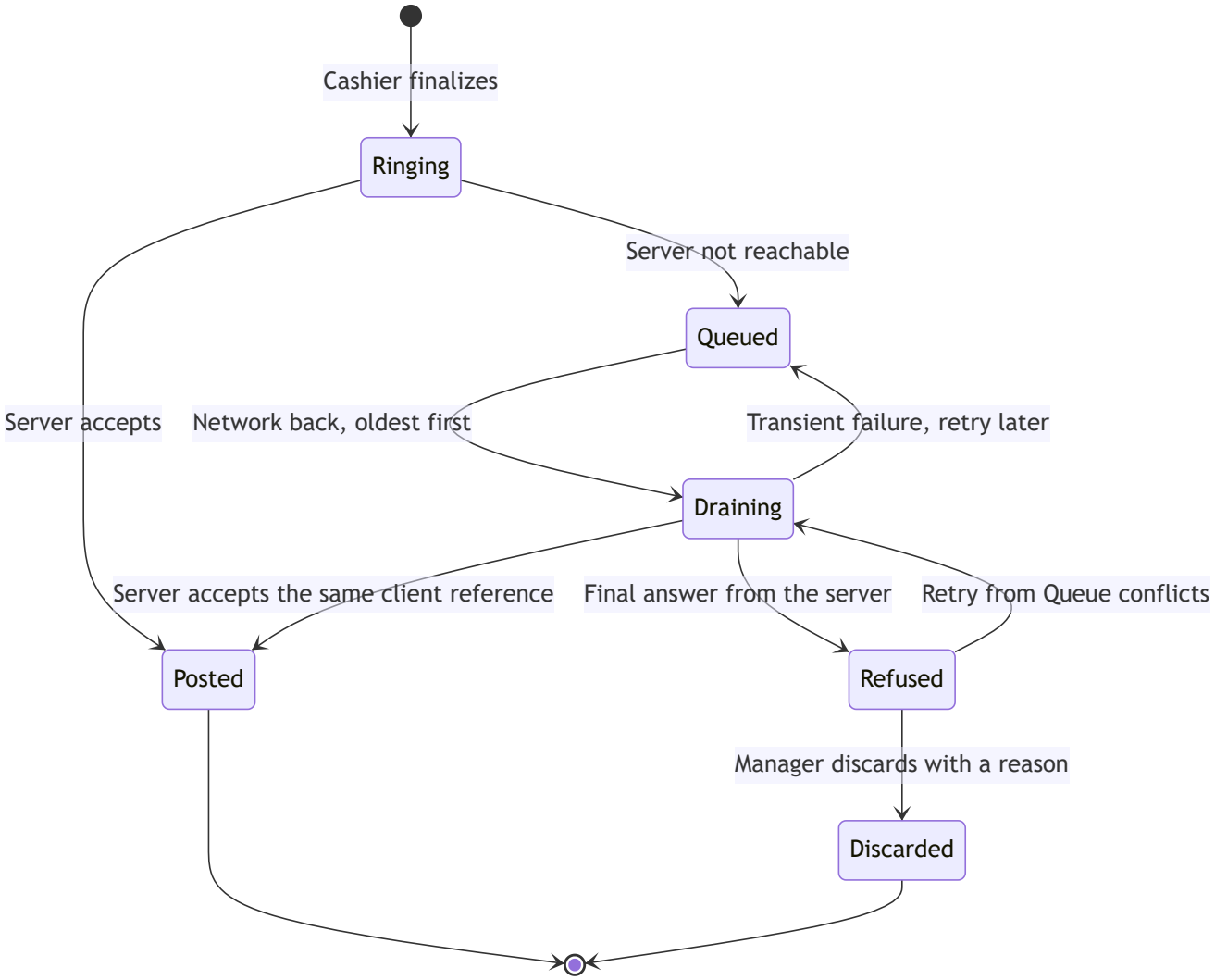
Not verified in code: the Shifts help says "Expected Cash: opening float plus the cash payments taken on the receipts", which leaves out refunds and cash movements. The code formula above is the one the Z report uses. I did not trace whether the Shifts list tile and the Day Close tile use the same formula or the older one.

> Source: `src/Zeyto.Edge/Domain/PosCashMath.cs`, `src/Zeyto.Edge/Api/PosApi.cs`, `src/Zeyto.Edge/Api/PosCashApi.cs`, `src/Zeyto.Web/src/screens/pos/ZReport.tsx`, `src/Zeyto.Web/src/screens/pos/CashControlSettings.tsx`, `src/Zeyto.Web/src/screens/pos/DayClose.tsx`, `src/Zeyto.Web/src/help/content/pos-vat-designers.ts`, `src/Zeyto.Web/src/help/content/settings-operations.ts`, `tests/Zeyto.Tests/GoldenPaymentTests.cs`, `tests/Zeyto.Tests/PosCashControlTests.cs`, `src/Zeyto.Edge/Data/migrations/0006-ops.sql`, `src/Zeyto.Edge/Data/migrations/0086-pos-cash-control.sql`

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5. When the till loses the server: the offline queue

The rule of the POS is that a sale is never blocked by a network or server problem. If the sale cannot reach the Edge, the terminal keeps it, prints a receipt marked OFFLINE with a temporary number such as **POS-LOCAL-1**, and sends it later. The header shows **WAITING TO SEND** and the bottom bar shows Working offline.



The life of a queued sale. A sale never leaves the queue silently. It is Posted, or it stays visible as Refused until a person retries it or a manager discards it with a reason.

How the queue behaves

- Every sale carries a **client reference**. The server replays by that reference, so sending a sale twice posts it once. That is why a sale can be retried safely after a timeout.
- The queue sends **oldest first**, one at a time. After a failure it waits 1 second, then 2, 4 and so on up to 60 seconds, with a random spread so that all tills do not return on the same beat. It also tries at once when the browser reports the network is back.
- When the server accepts the sale, the receipt stored on the PC is finalized with the real document number, replacing POS-LOCAL-n.
- The queue and the held carts are stored in the browser storage of the PC. Clearing the browser data of that PC loses them, so do not clear it while WAITING TO SEND is above zero.

Transient and final answers

WHAT THE SERVER ANSWERS	WHAT THE TILL DOES
No answer, a server error, 401, 404, 408 or 429, or a conflict such as NO_OPEN_SHIFT, CONCURRENT_UPDATE or DOC_SUBMIT_IN_PROGRESS	Treats it as temporary. The sale stays queued and is retried.

WHAT THE SERVER ANSWERS	WHAT THE TILL DOES
400 or 422 (the content is wrong, for example not enough stock under a Block policy or a price the user may not change)	A final answer. The sale is set aside as Refused with the reason.
A conflict that depends on the books: PERIOD_CLOSED, PERIOD_FILED, DOC_STATE, CHAIN_CHILDREN, SHIFT_CLOSED, DAY_ALREADY_CLOSED, DOC_IDEMPOTENCY_CONFLICT	A final answer. Refused, with the reason.
SUBMIT_WARNING or APPROVAL_REQUIRED	Set aside as Refused with a message that a manager must confirm. The other queued sales continue.

A refused sale does not block the ones behind it. The count in the header reads "Waiting to send: N · M refused". Open the queue from the header to reach **Queue conflicts** (the dialog is titled **Offline queue**). There you can **retry** a refused sale, which clears its attempt count and sends it again, or **discard** it. Discard asks for a **Reason**, a **Manager username** and a **Manager PIN**. A discard is a deliberate act and it is recorded.

THE LOCAL SHIFT IS A PLACEHOLDER

If you press Open Shift while the server cannot be reached, the till opens a LOCAL SHIFT so you can keep selling. It exists only on that PC. Closing it records no cash count on the server. Open a normal shift as soon as the server is back so the waiting sales can post to it. The same fallback happens when the server refuses to open a shift, for example because the day is closed, even though the message then says the server is unreachable. A LOCAL SHIFT appears only after a network failure, never as a way around a closed day.

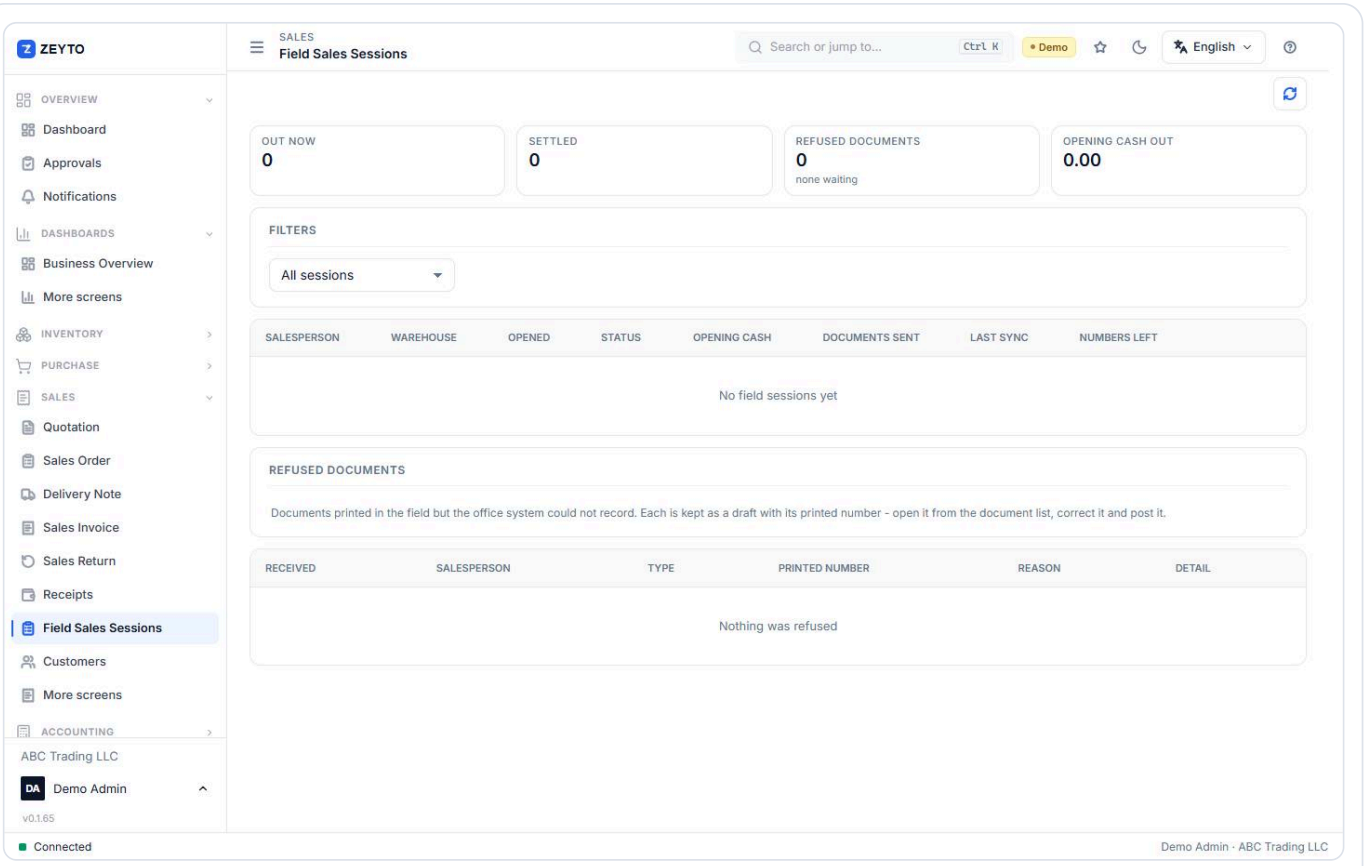
Not verified in code: the help says a refused-for-the-books sale is kept and the message still says OFFLINE, and that refunds, voids and the drawer need the server. The queue code shows the refusal classes above. I did not trace how the terminal words each message.

> Source: `src/Zeyto.Web/src/screens/pos/queue.ts`, `src/Zeyto.Web/src/screens/pos/QueueConflicts.tsx`, `src/Zeyto.Web/src/screens/pos/ShiftGate.tsx`, `src/Zeyto.Web/src/help/content/pos-vat-designers.ts`, `docs/operations/w49-pos-screens.md`, `docs/architecture/field-sales-sync-design.md`

6. Field Sales: a whole day with no connection

Field Sales is for a salesperson who works away from the office network: a route, a van, a bag of samples. You start the day while you are online. The screen then downloads your customers, prices, tax codes and the stock you carry, and the office reserves a block of invoice numbers for you. After that you can sell, collect money and take returns with no connection at all. Each document gets its final number, is printed for the customer and is kept safely on the device. When a connection returns, the day is sent to the office, which posts every document exactly once.

The salesperson needs the permission `fieldsales.sell`. A manager who watches sessions and revokes devices needs `fieldsales.manage`. The screen is `Sales ▸ Field Sales` for the salesperson and `Sales ▸ Field Sales Sessions` for the office.



Field Sales Sessions in the back office. The demo company has no field sessions yet, so every figure is zero and the lists are empty. The tiles read Out Now, Settled, Refused Documents (none waiting) and Opening Cash Out. A Filters box offers All sessions. The sessions table has the columns Salesperson, Warehouse, Opened, Status, Opening Cash, Documents Sent, Last Sync and Numbers Left. Below it a Refused Documents table explains that documents printed in the field but not recorded by the office are kept as drafts with their printed number, to be opened from the document list, corrected and posted. Its columns are Received, Salesperson, Type, Printed Number, Reason and Detail.

FIELD SALES PRINTS REAL NUMBERS, NOT TEMPORARY ONES

The POS gives an offline sale a temporary number (POS-LOCAL-n) that is replaced later. Field Sales does not. At the start of the day the office takes a block of numbers out of the real invoice, receipt and credit note series, 50 of each by default and up to 500, and gives them to that device. The device prints from its block in order. Nobody else can ever receive those numbers, so the paper copy in the customer's hand carries the number that will be in the books.

Where it works offline

Offline selling needs the web app to be stored by the browser so it can reopen with no connection, and it needs the browser to allow the encryption that protects the device. Browsers allow both only on a secure address.

HOW THE SALESPERSON OPENS ZEYTO	SELL OFFLINE?	REOPEN THE APP OFFLINE?
On the server PC or a laptop that runs the server (http://localhost:8443)	Yes	Yes
Any machine through an https address the shop controls, with a trusted certificate	Yes	Yes

HOW THE SALESPERSON OPENS ZEYTO	SELL OFFLINE?	REOPEN THE APP OFFLINE?
A remote web link on the shop's own address (`shop.remote.zeyto.app`)	Yes	Yes, since the 2026-10-17 decision
The phone app	Yes, while the page stays open	No
Plain http over the shop network (http://192.168.x.x:8443)	No	No

On the last row the screen reads "Field sales needs a secure address" and stays off. If the page cannot reopen by itself, a warning on the screen says not to close or refresh the page while offline.

A day in the field, step by step

1. **Choose a PIN.** The first time you open `Sales ▸ Field Sales` on a device, choose a PIN or short phrase of at least 6 characters and repeat it. Everything Field Sales stores on the device is encrypted with it. Next time you only type it. Five wrong tries make you wait. If you forget it, **Forgot the PIN? Reset this device** clears the device and loses any documents not yet sent.

2. **Start the day while online.** Under **Start the day** type the **Field warehouse code** (for example VAN01) and **Opening cash you start with**, then press `Start day and download prices`. If a day is already open for this device, press `Resume a day already open for this device`. Wait for the message that the day has started. You can now go offline.

3. **Sell.** On the **Sell** tab find the customer with **Find customer**, then add items with **Scan or search an item**. The **Invoice** table has Quantity, Price and Discount for each line. A warning shows if you sell more than your stock holds. Choose how the customer pays: the full amount now, part of it, or on credit. A cash customer must pay in full. If a credit sale takes a customer over the credit limit, type the supervisor's name in **Supervisor name**.

4. **Complete and print.** Press `Complete and print`. The invoice takes the next number in your block, is saved on the device and the print window opens. Prints work offline.

5. **Collect money.** On the **Collect** tab, under **Money received**, record what a customer pays. It settles their oldest invoices when it is sent.

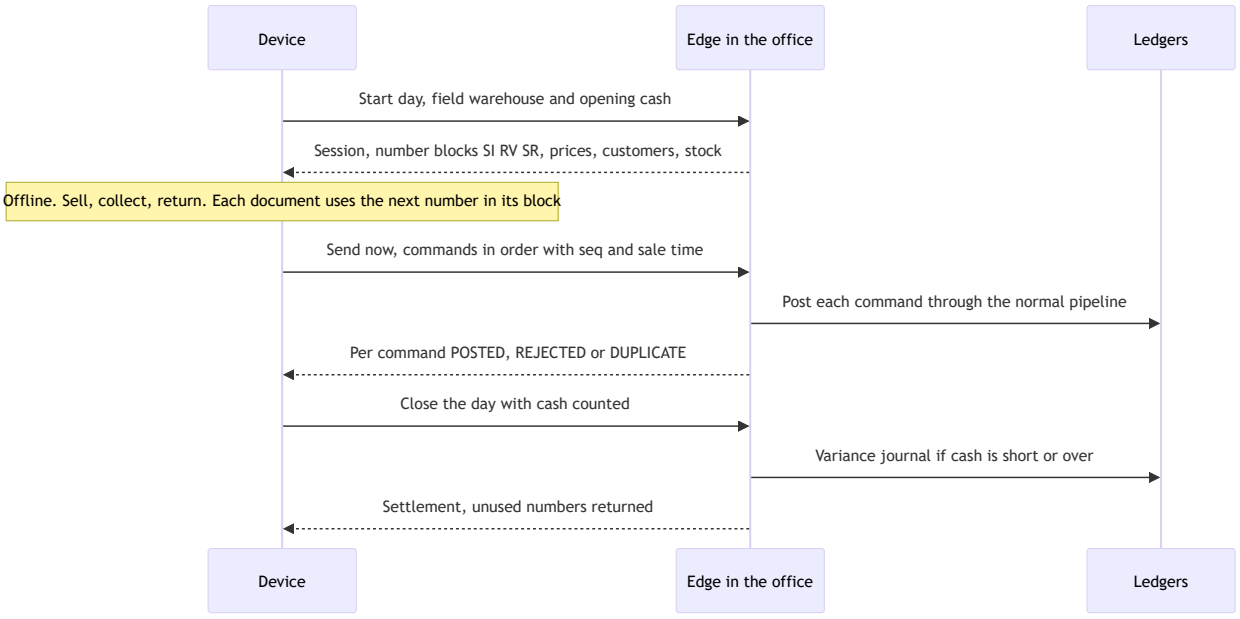
6. **Take returns.** On the **Return** tab, under **Returned goods**, record what came back. The goods go back into your stock and the customer owes less.

7. **Watch the day.** The top bar shows **Online** or **Offline** and either **N not sent** or **All sent**. The **Today** tab lists every document with a pill: Sent, Refused or Not sent, and a `Reprint` button that works offline.

8. **Send.** When a connection comes back, press `Send now`. It also happens by itself. It sends the documents in the order you made them and refreshes your prices and stock. The message reads, for example, "Sent 7: 6 recorded, 1 refused".

9. **Close the day.** Everything must be sent first. Open the **End day** tab. Under **Before you close** use **Send what is waiting** if needed. Under **Count the cash** type **Cash counted** and press `Close the day`. The screen tells you if you are short or over, and the office settles it.

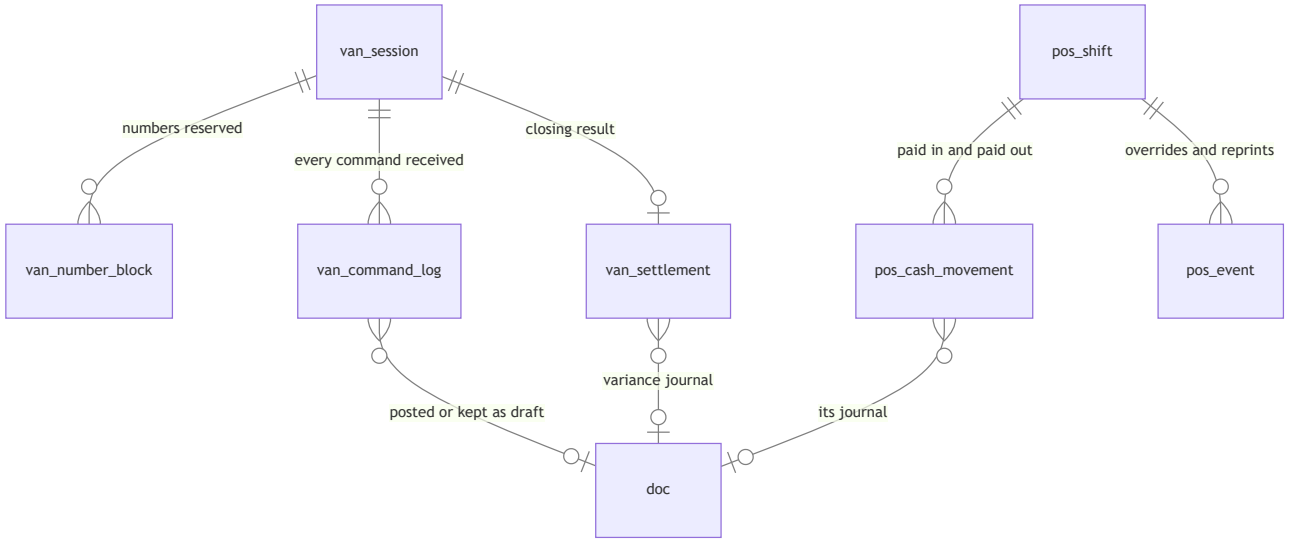
10 **Start fresh.** After a settled day, press `Clear the device and start fresh`.



The Field Sales sync. The only moments that need a connection are the start, the sends and the close. A command that is sent twice returns DUPLICATE with the original document, so a dropped connection never creates a second invoice. A refused command never stops the ones after it.

What the office does with each command

- A command is a sale (SI), a collection (RV) or a return (SR). It carries a unique id, a sequence number, the printed document number and the time of the sale.
- The office checks that the printed number is one reserved for this session. Otherwise the command is refused with `NUMBER_NOT_RESERVED`.
- It dates the document from the time of the sale on the device, not from the day the batch arrives. It sells from the field warehouse of the session, whatever the device sent as a warehouse.
- It posts the document through the ordinary pipeline, so VAT, period locks and credit control all apply. The golden posting rules for an invoice, receipt or credit note are the same as at a desk.
- Same id and same content: `DUPLICATE`. Same id with different content: refused with `COMMAND_CONFLICT`. A session that is already settled or revoked refuses with `SESSION_SETTLED` or `SESSION_REVOKED`.
- If posting fails, for example `PERIOD_CLOSED`, that one command is `REJECTED`. The document stays in the office as a **Draft that keeps the printed number**, so the paper copy the customer holds still matches. An accountant opens the draft from the document list, fixes the cause (the date, the customer) and posts it. The next commands still post.



Where the field and till records live. `van_command_log` is the idempotency ledger and the list of refused documents. `van_settlement` keeps the opening cash, the cash movement, the expected and counted cash, the variance, the credit sales and the counts. The two POS tables hold cash movements and audit events for a shift.

REAL EXAMPLE

A field day that closes 4.00 short (test `VanSalesTests`)

The field warehouse VAN01 holds 10 pieces bought at 10.00 each. The salesperson starts with 50.00 of opening cash. In the field one cash sale is made: 3 pieces at 30.00 plus 5% VAT, 94.50 in all. The device later sends it, and the office posts it with the number printed on the device:

ACCOUNT	DR	CR
1000 Cash in Hand	94.50	
4000 Sales		90.00
2200 VAT Output		4.50
5000 Cost of Goods Sold	30.00	
1300 Inventory		30.00
Total	**124.50**	**124.50**

Stock in VAN01 falls from 10 to 7. At the end of the day the settlement works out:

LINE	AED
Opening cash	50.00
Cash movement of the session's documents	94.50
Expected cash	144.50
Cash counted	140.50
Variance	-4.00

The office posts one journal for the shortage, the same shape as a POS shift: debit the cash shortage expense account (6900 Miscellaneous Expenses in the standard chart) and credit Cash in Hand, 4.00 each. The unused numbers of the block are given back, the session becomes Settled and any later command is refused with SESSION_SETTLED. Closing the same session again returns the same settlement and never posts a second journal.

Lost device, refused documents, limits

- **Revoke a device.** At `Sales ▸ Field Sales Sessions` find the open session and press `Revoke`. The device can no longer send, and its unused numbers are taken back. What it already sent stays recorded. The list shows Salesperson, Documents Sent, Last Sync and Numbers Left by document type.
- **Refused documents.** The second list on the same screen shows each refused document with its Reason and Detail. Fix the cause and post the draft.
- **Request more numbers.** If a block runs low the screen warns. Connect and press `Send now` to receive more.

KNOWN LIMITS OF FIELD SALES

Taken from the design document of 2026-10-17: over-credit-limit approval is a typed supervisor name because a PIN cannot be checked offline; a return carries no reference to the original invoice; the offline invoice has no e-invoice QR code; stock is judged against the downloaded stock plus the device's own movements, with no reservation across devices; one device per field warehouse at a time; every active customer is downloaded, not only the salesperson's; items with serial, batch or expiry cannot be sold offline; an unfinished cart is lost if the device locks after 10 idle minutes; a forgotten PIN means the device is reset and unsent documents are lost.

Not verified in code: the limits above come from the design document dated 2026-10-17 and I did not re-check each in the current code. Also not verified: whether the Field Sales Sessions list now offers the manual stock load and unload the design mentions. Field stock arrives through an ordinary stock transfer to the field warehouse, as the test does.

> Source: `src/Zeyto.Edge/Api/VanApi.cs`, `src/Zeyto.Web/src/screens/van/VanSales.tsx`, `src/Zeyto.Web/src/screens/van/VanSessions.tsx`, `src/Zeyto.Web/src/help/content/sales-field.ts`, `docs/architecture/field-sales-sync-design.md`, `tests/Zeyto.Tests/VanSalesTests.cs`, `src/Zeyto.Edge/Data/migrations/0082-van-sales.sql`

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7. The phone: the mobile app and the phone layout

There are two separate things here. One is the **Zeyto mobile app**. The other is the **phone layout** that every Zeyto web screen switches to on a narrow screen. You can use the phone layout in any phone browser. The app adds pairing to the shop.

The mobile app

The Android app is a thin shell around the Zeyto web interface. It opens the same responsive screens that Chrome, the desktop client and browser access show. It keeps no business data of its own. It stores only the chosen web address and a short summary of the last server check. Its screens use these labels: **Live Demo**, **Enter URL**, **Scan Access QR**, **Verify & Open**, **Change URL**, **Retry Check** and **Open Anyway**.

1. **Turn remote access on.** At the shop computer open `Settings ▸ Remote & Mobile Access` and tick **Allow remote and mobile access**. It takes effect at once. The status beside the title should read Connected.
2. **Check Pairing readiness.** Every line must say OK. Your licence needs the Mobile module and a free mobile seat, and the installation must be activated with a live connection.
3. **Generate the code.** Press `Generate pairing code`. A QR code and an access code appear. They work once and expire after five minutes.
4. **Scan it.** On the phone open the Zeyto mobile app and choose `Scan Access QR`. Or press Copy and type the access code by hand. The app reports "Secure access connected".
5. **Sign in.** Everyone still signs in with their own Zeyto user name and password. A phone takes a licensed mobile seat. If a pairing is cancelled or the licence changes, the app says "Phone pairing needs renewal" and you generate and scan a new code.

The shop computer must be switched on and online for any remote or phone access to work. To stop a browser link or a Zeyto Client PC, press `Turn off` beside it on the same screen and confirm. It stops working at once.

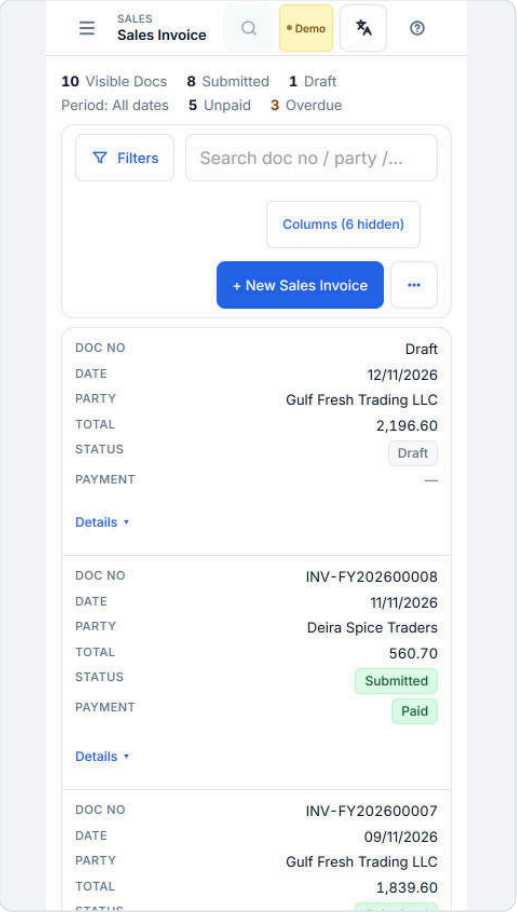
OFFLINE SELLING ON A PHONE

The app cannot reopen Zeyto by itself with no connection, because the app gives the page a different local address on every launch, so the browser cache cannot be reused. The web app therefore does not register its offline worker inside the app. Field Sales still works there while the page stays open, but if you close the app with no signal you cannot get back in until you have a connection. For a day with poor signal, open the stable https address in the phone browser instead, or keep the app page open.

The phone layout of the web screens

Phone rules apply at 640 px wide and below. A tablet at 768 px keeps the desktop layout. The scrolling fix for lists applies up to 767 px. What changes on a phone:

SCREEN PART	ON A PHONE
Page scroll	The page itself scrolls, not a box inside it, so the browser can hide its address bar. The top toolbar is the one sticky strip. The posting strip sits at the end of the page.
Lists and registers	Rows can show as cards, with a switch between cards and the table that Zeyto remembers. The filter row folds under a **Filters** toggle. KPI tiles become one swipeable row.
Pickers (customer, item)	Open as a bottom sheet with the search on top and two or three line cards, clear of the on-screen keyboard.
Document line grid	One row per item, as on the desktop table. The columns reorder to **Item**, **Qty**, **Rate**, **Total**, then Unit and the optional columns, with remove last. The table scrolls sideways as one piece and no column is pinned.
Totals and summary strip	The summary strip keeps the document number, party, Date, Currency and Total on one line. Totals become a list.
Inputs and buttons	Inputs are 16 px so iOS does not zoom, and touch targets are at least 40 px (44 px on the till).
POS Terminal	One pane at a time: an **Items** pane and a **Cart** pane, switched by a bar at the bottom. The header buttons become one swipeable strip. All three till layouts collapse to this single column.



The Sales Invoice list on a phone. A line of counts reads 10 Visible Docs, 8 Submitted, 1 Draft, 5 Unpaid and 3 Overdue for the period All dates. A Filters button and the search box sit above the Columns (6 hidden) button, the blue + New Sales Invoice button and a three-dot menu. Each invoice is a card with Doc No, Date, Party, Total, Status and Payment, and a Details link opens the rest. The first card is a Draft for Gulf Fresh Trading LLC, 2,196.60. The next is INV-FY202600008 for Deira Spice Traders, 560.70, Submitted and Paid.

Not verified in code: the W42 write-up says a real iPhone and the in-app browsers were not tested, only an Edge emulation of phone widths, and that its two-pane stacking section is untested. Test on your own phone before promising it to a customer.

> Source: `mobile/zeyto_mobile_skin/README.md`, `mobile/zeyto_mobile_skin/lib/main.dart`, `mobile/zeyto_mobile_skin/pubspec.yaml`, `src/Zeyto.Web/src/help/content/settings-system.ts`, `docs/operations/w42-mobile-responsive-2026-11-07.md`, `docs/operations/w47-mobile-lists.md`, `docs/operations/w54-phone-line-rows.md`, `src/Zeyto.Web/src/screens/pos/posPhone.css`, `docs/architecture/field-sales-sync-design.md`

8. Check yourself and common mistakes

Check yourself

1. Open a shift with a float of 100.00, sell 38.85 in cash and close with a count of 138.85. The Z report must show Expected cash 138.85 and Over / Short 0.00, and no variance journal must appear.
2. Close another shift with a count 3.85 short. Open the Journal list: one journal debits 6900 Miscellaneous Expenses and credits 1000 Cash in Hand for 3.85.
3. Refund one item with Restock. The Z report must show Returns, the cash refund must reduce Expected cash, and stock on hand must rise by one.
4. Switch the network off on one till and sell twice. The header must read WAITING TO SEND 2 and the receipts must carry POS-LOCAL numbers. Switch it on. The count must go to 0 and the real POS numbers must appear in POS Receipts.

5. Open `POS ▸ POS Audit` and filter Type to Receipt reprint. Each reprint you did at the till must be there with a reason.
6. In Field Sales, start a day, go offline, make a cash invoice of 94.50 and complete it. Go online and press Send now. The Today tab must show Sent, and the same document number must be in the Sales Invoice list, dated the day you made it.
7. Close the Field Sales day 4.00 short. The settlement must show Variance -4.00 and one journal for 4.00 must exist. Check Field Sales Sessions: Numbers Left must be 0 for every document type.
8. Pair a phone. In Settings ▸ Remote & Mobile Access every line of Pairing readiness must say OK before you generate the code, and the app must report Secure access connected after you scan it.

Common mistakes

SYMPTOM	CAUSE	FIX
Yesterday's date on this morning's receipts.	The shift was not closed overnight. A shift keeps the date it was opened.	Close the shift every night, then open a new one.
The drawer counts short by the amount of a cash refund.	You read the older help text. In the code, cash refunds are taken off the expected cash.	Compare against the Cash Drawer block of the Z report, which includes refunds, paid in and paid out.
WAITING TO SEND stays at 1 and turns red.	The server refused that sale for a final reason, such as a closed day, a filed VAT period or not enough stock under a Block policy.	Open the queue, read the reason, fix the cause, then use Retry. A manager can Discard it with a reason.
Day Close says it cannot close.	A shift of that date is still open, or no shift was closed.	Close every shift of that date first.
Nothing can be sold on a date after Day Close.	Day Close locks the branch and date.	Use Reopen with a reason (needs the security.amend permission), make the change, then run Day Close again.
The cashier cannot refund and the manager PIN is refused.	The manager has no POS PIN, or either user lacks pos.refund.	Set a POS PIN under Settings ▸ Users and Permissions and give the permission.
Field Sales shows "needs a secure address".	Zeyto was opened on plain http over the shop network.	Use the shop's https address, the remote link, or the server PC (localhost).
A field invoice shows Refused.	The office could not post it, for example PERIOD_CLOSED.	The accountant opens the Draft that keeps the printed number, fixes the date or customer and posts it. Give the paper copy to the office.
You cannot close the field day.	Some documents are not sent yet, or the device is offline.	Press Send now online, then Close the day.
The salesperson forgot the PIN.	The PIN is a local lock only and cannot be recovered.	Reset the device. Unsent documents on it are lost, so always send before the end of the day.
The phone app cannot reopen offline.	The app's local address changes at each launch, so the offline worker is not used.	Keep the page open, or use the stable https address in a phone browser.

> Source: `tests/Zeyto.Tests/GoldenPaymentTests.cs`, `tests/Zeyto.Tests/PosCashControlTests.cs`, `tests/Zeyto.Tests/VanSalesTests.cs`, `src/Zeyto.Web/src/help/content/pos-vat-designers.ts`, `src/Zeyto.Web/src/help/content/sales-field.ts`, `src/Zeyto.Web/src/help/content/settings-system.ts`, `docs/architecture/field-sales-sync-design.md`

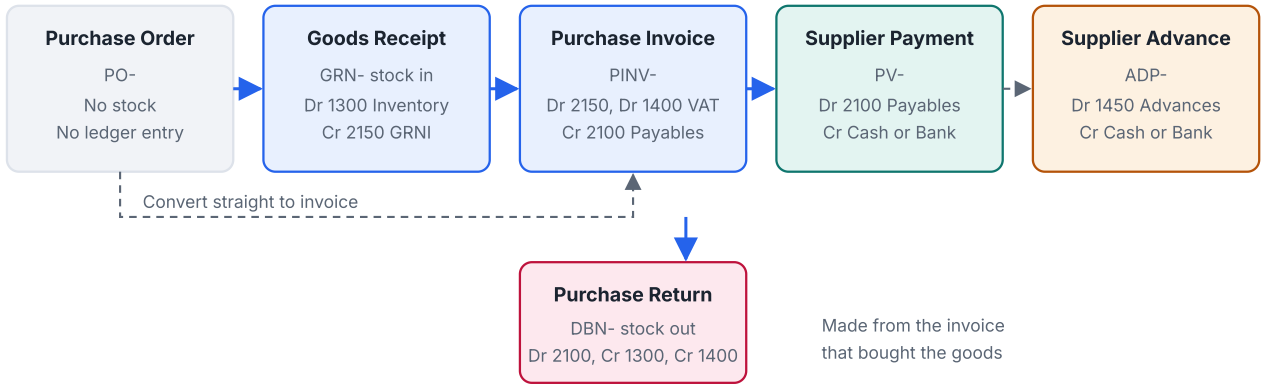
DAILY WORK

Purchasing: order to payment

After this chapter you can buy goods from a supplier, receive them, book the supplier's invoice, add freight to the item cost, pay the bill, return goods, and check every step in the reports. You will also know exactly which accounts and which stock rows each document writes.

1. The big picture

Buying in Zeyto is a chain of documents. Each document is a separate record with its own number, and each one can be made from the one before it. You do not have to use the whole chain. A small shop can skip the order and the receipt and enter only a Purchase Invoice. A warehouse that receives goods before the bill arrives uses all of it.



The purchase chain. Solid arrows are the usual path. A Purchase Order can also be converted straight to a Purchase Invoice. Only the Goods Receipt, Purchase Invoice, Purchase Return, Supplier Payment and Supplier Advance write to the ledgers.

Two rules shape everything else in this chapter.

Documents never change after posting

A submitted document is not edited in place. You Amend it (its number gets a suffix such as `/A1`) or you Cancel it. Both write reversing rows, so the ledgers keep a full history and always balance.

A receipt is a liability before the bill arrives

A Goods Receipt posts stock in and credits the account **Goods Received Not Invoiced** (2150, "GRNI"). The Purchase Invoice later clears that account and creates the real payable. This is why stock value and payables are right on the day the goods arrive.

The documents at a glance

DOCUMENT	WHERE	NUMBER	STOCK	ACCOUNTS
Purchase Order (LPO)	`Purchase ▸ Purchase Order`	PO-	None	None. It is a promise, not a purchase.
Goods Receipt	`Purchase ▸ Goods Receipts`	GRN-	In, at the order rate	Dr Inventory 1300, Cr GRNI 2150

DOCUMENT	WHERE	NUMBER	STOCK	ACCOUNTS
Purchase Invoice	`Purchase ▸ Purchase Invoice`	PINV-	In, only when it is a direct invoice with **Update Stock** ticked	Dr Inventory (or Expense), Dr VAT Input 1400, Cr Trade Payables 2100. After a receipt it clears GRNI instead.
Purchase Return and Debit Note	`Purchase ▸ Purchase Return`	DBN-	Out (none for a Debit Note)	Dr Payables, Cr Inventory, Cr VAT Input
Supplier Payment	`Accounting ▸ Payments`	PV-	None	Dr Payables per bill, Cr Cash or Bank
Supplier Advance	`Accounting ▸ Advances`	ADP-	None	Dr Supplier Advances 1450, Dr VAT Input 1400, Cr Cash or Bank

Numbers carry the fiscal year. The demo company shows PO-FY202600001, GRN-FY202600001, PINV-FY202600001, DBN-FY202600001 and PV-FY202600001. The golden tests quote shorter numbers such as PINV-00001 and PAY-00001. Use the prefix your own screen shows.

The Purchase menu also holds `Suppliers` (the supplier list), `Asset Purchase`, `RCM Self-Accounting`, `Expense Types` and `Landed Cost`. Supplier payments and advances live under Accounting, not under Purchase.

Not verified in code: how the Asset Purchase and Landed Cost screens differ from the Charges card on the invoice. Section 4 describes the Charges card, which is the current way to add freight and similar costs.

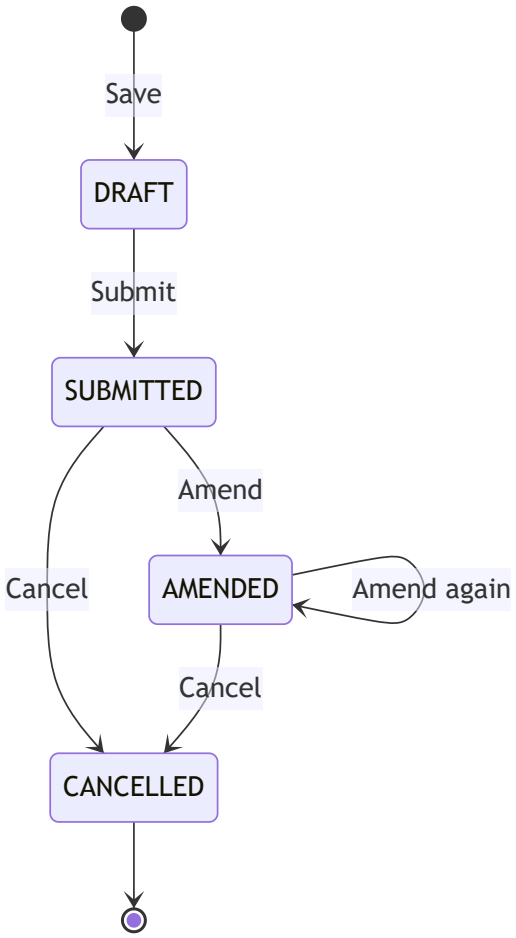
> Source: `src/Zeyto.Web/src/help/content/purchase.ts`, `src/Zeyto.Web/src/help/content/accounting-vouchers.ts`, `src/Zeyto.Edge/Domain/GlMapper.cs`, `src/Zeyto.Edge/Data/Migrations/0009-seed-core.sql`, `src/Zeyto.Edge/Data/Migrations/0113-grni-account.sql`

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2. The documents, their states and the chain

Every document has the same four states

Every purchase document, from the order to the payment, uses the same status words. The `doc` table allows exactly these four: **DRAFT**, **SUBMITTED**, **AMENDED** and **CANCELLED**.



Document states. A draft posts nothing. Submit posts the stock, ledger and VAT rows. Each Amend raises the suffix (`/A1` , `/A2`) and re-posts after reversing the old rows. Cancel reverses everything and cannot be undone.

RULE: A DOCUMENT WITH A CHILD CANNOT CHANGE

You cannot Amend or Cancel a document while a later document made from it still stands. The product refuses with the code `CHAIN_CHILDREN` . Cancel from the end of the chain back: the return, then the invoice, then the receipt, then the order.

What each screen asks for

Purchase Order

Pick the supplier by name in the typed picker, add item lines with quantity and rate, and Submit. A submitted order shows a **Flow** value such as Partial or Completed as receipts and invoices are made from it. The order itself never touches stock or accounts.

Goods Receipt

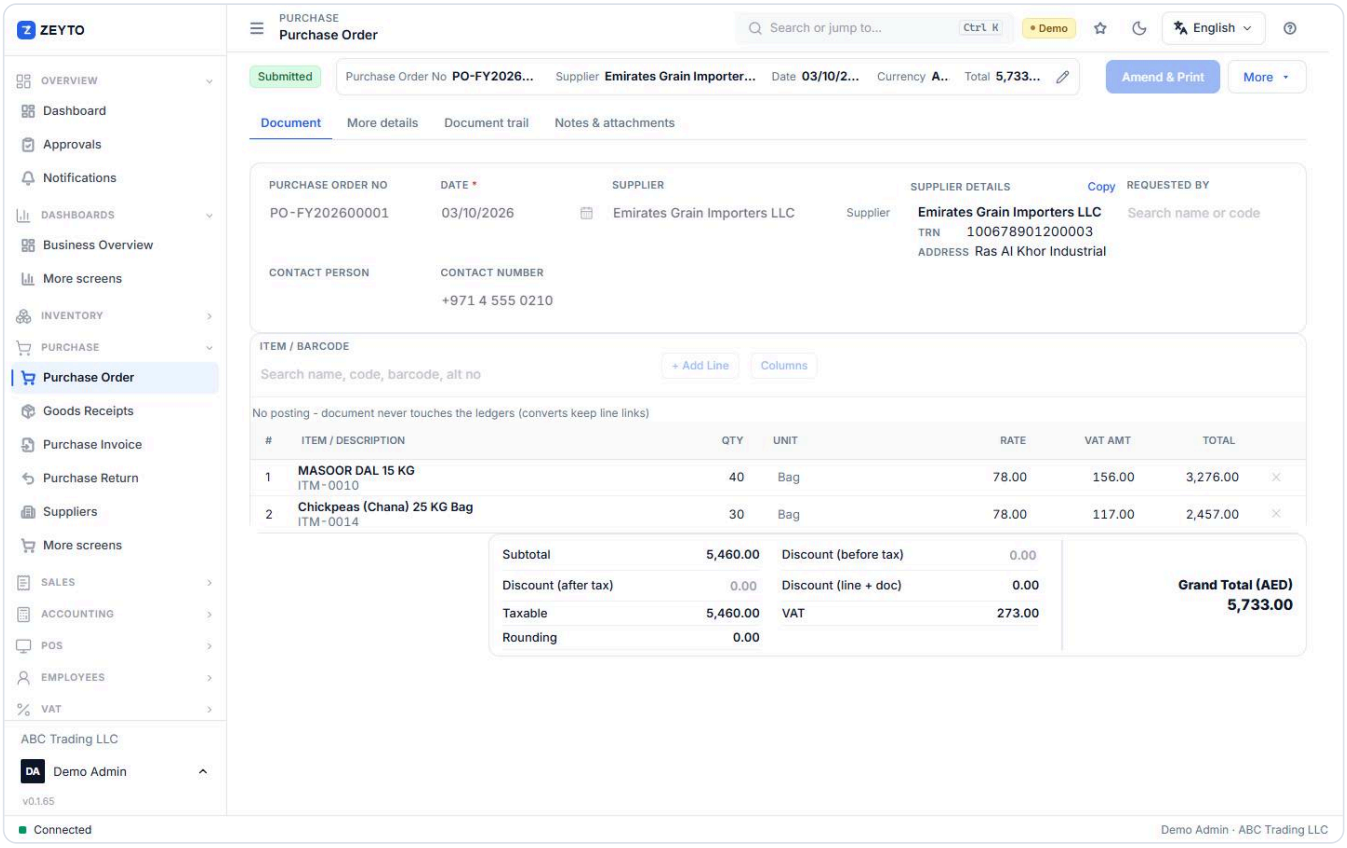
Use **Create Against** and **Source Doc**, then **Pull Lines**, to bring in the order's lines. Check what physically arrived and change quantities. Submit puts the stock into the warehouse and credits GRNI.

Purchase Invoice

Needs **Supplier Invoice No** and **Supplier Invoice Date** (the supplier's own number and date). The **Update Stock** tick decides whether a direct invoice also receives the goods. There is a **Charges** card for freight and similar costs, a **Payment Details** card to pay on the spot, and **Apply advances** to use money you already paid the supplier.

Purchase Return

Made from the invoice that bought the goods. Pick the lines and quantities that go back. The goods leave stock at their current cost and the supplier's payable falls by the invoice price.

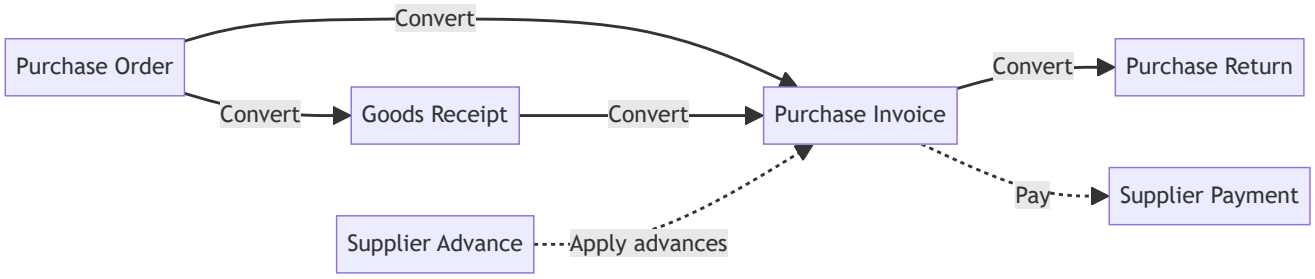


Purchase Order PO-FY202600001. Supplier Emirates Grain Importers LLC: 40 bags of MASOOR DAL 15 KG and 30 bags of Chickpeas (Chana) 25 KG Bag at 78.00 each. Subtotal 5,460.00, VAT 273.00, grand total 5,733.00. Above the lines the screen says "No posting - document never touches the ledgers", and there is no Accounting impact section.

The in-app help describes a `Convert` action that makes the next document (for example **Create Purchase Invoice** or **Create Purchase Return**). The `More ▾` menu holds Save, Print, Postings, WhatsApp PDF, Attachments, Activity and Cancel. The **Postings** view lists the stock, ledger and VAT rows the document wrote. Use it after every submit while you learn the system. A tab named **Document trail** shows the parent and child documents. The form tabs are Document, More details, Payment (on invoices), Document trail and Notes & attachments.

Not verified in code: where the Convert action sits on screen. On the submitted documents in the screenshots the toolbar shows `Amend & Print` and `More`. The Create Against, Source Doc and Pull Lines fields on a new document (shown as Independent when nothing is pulled) are the path this chapter uses.

The conversion map



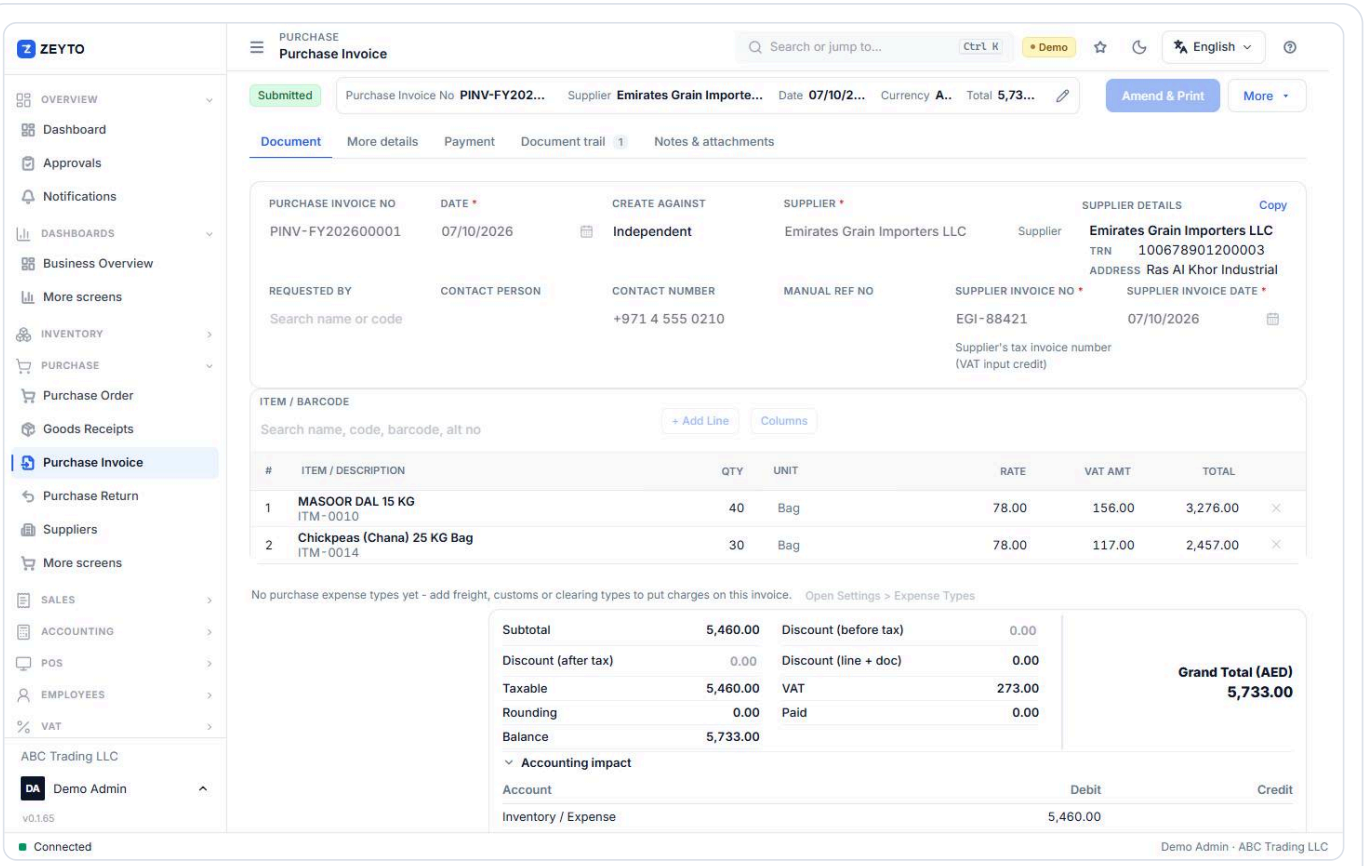
What can be converted into what. The product allows Order to Receipt or Invoice, Receipt to Invoice, and Invoice to Return. Convert needs the source to be SUBMITTED or AMENDED. Payments and advances are linked through allocation, shown dashed.

The link is stored on the new document in `doc.ref_doc_id`. Reports and the Document trail read that column to show the chain.

> **TIP**
> The product has no Purchase Request document type. If your team raises requests, record them outside Zeyto and start at the Purchase Order.

Tutorial 1: receive goods, then book the supplier's invoice

1. **Create the order.** Go to `Purchase ▸ Purchase Order` and press `+ New`. Pick the supplier by typing part of the name. Add the items and rates. Press Submit. The order gets a number starting `PO-`.
2. **Receive the goods.** Go to `Purchase ▸ Goods Receipts` and press `+ New`. In **Create Against** choose the order, pick it in **Source Doc** and press **Pull Lines**. Correct each quantity to what the driver actually unloaded.
3. **Submit the receipt.** The stock goes into the warehouse at the order rate. Open `More ▾` then **Postings**. You will see Dr Inventory and Cr Goods Received Not Invoiced for the same amount.
4. **Book the invoice.** When the supplier's bill arrives, go to `Purchase ▸ Purchase Invoice`, press `+ New`, and pull in the receipt the same way. Type the supplier's **Supplier Invoice No** and **Supplier Invoice Date**. Compare each rate with the paper bill and correct any difference here.
5. **Submit the invoice.** Open Postings. The invoice debits GRNI to clear it, debits VAT Input and credits Trade Payables.
6. **Check the GRNI report.** Open `Reports ▸ Goods Received Not Invoiced`. The receipt should no longer be listed as pending.



Purchase Invoice PINV-FY202600001. The red stars mark **Supplier Invoice No** (EGI-88421) and **Supplier Invoice Date** (07/10/2026). Totals: 5,733.00, Paid 0.00, Balance 5,733.00. The tabs are Document, More details, Payment, Document trail and Notes & attachments. A note under the lines says there are no purchase expense types yet and links to Settings > Expense Types, so no Charges card is offered. This invoice shows Create Against as Independent, and its Accounting impact starts with Inventory / Expense 5,460.00 on the debit side.

> Source: `src/Zeyto.Web/src/help/content/purchase.ts`, `src/Zeyto.Web/src/help/content/start.ts`, `src/Zeyto.Edge/Api/DocsApi.cs`, `src/Zeyto.Edge/Data/Migrations/0004-documents.sql`

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3. What the Goods Receipt and the Purchase Invoice post

This is the part accountants check first, so every figure below comes from the product's golden posting tests. Money is in AED and VAT is 5%.

The receipt, then the invoice at the same price

REAL EXAMPLE

10 units at 13.00, receipt then invoice (golden test GS_GRNI_01)

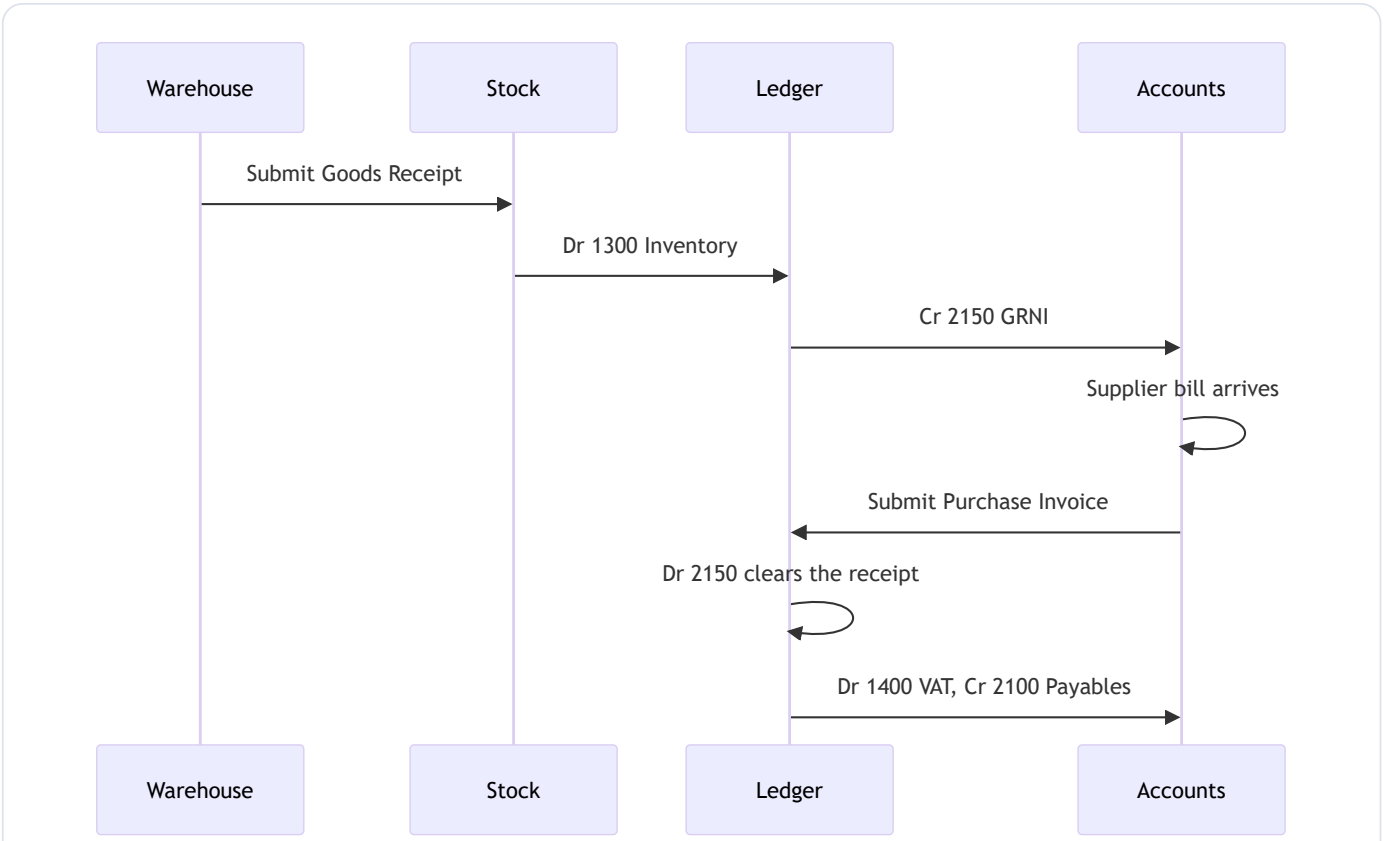
You receive 10 units at 13.00. The receipt value is 10 × 13.00 = 130.00. No VAT is posted at the receipt, because VAT belongs to the supplier's invoice.

GOODS RECEIPT GRN-	DR	CR
1300 Inventory	130.00	
2150 Goods Received Not Invoiced		130.00
Total	**130.00**	**130.00**

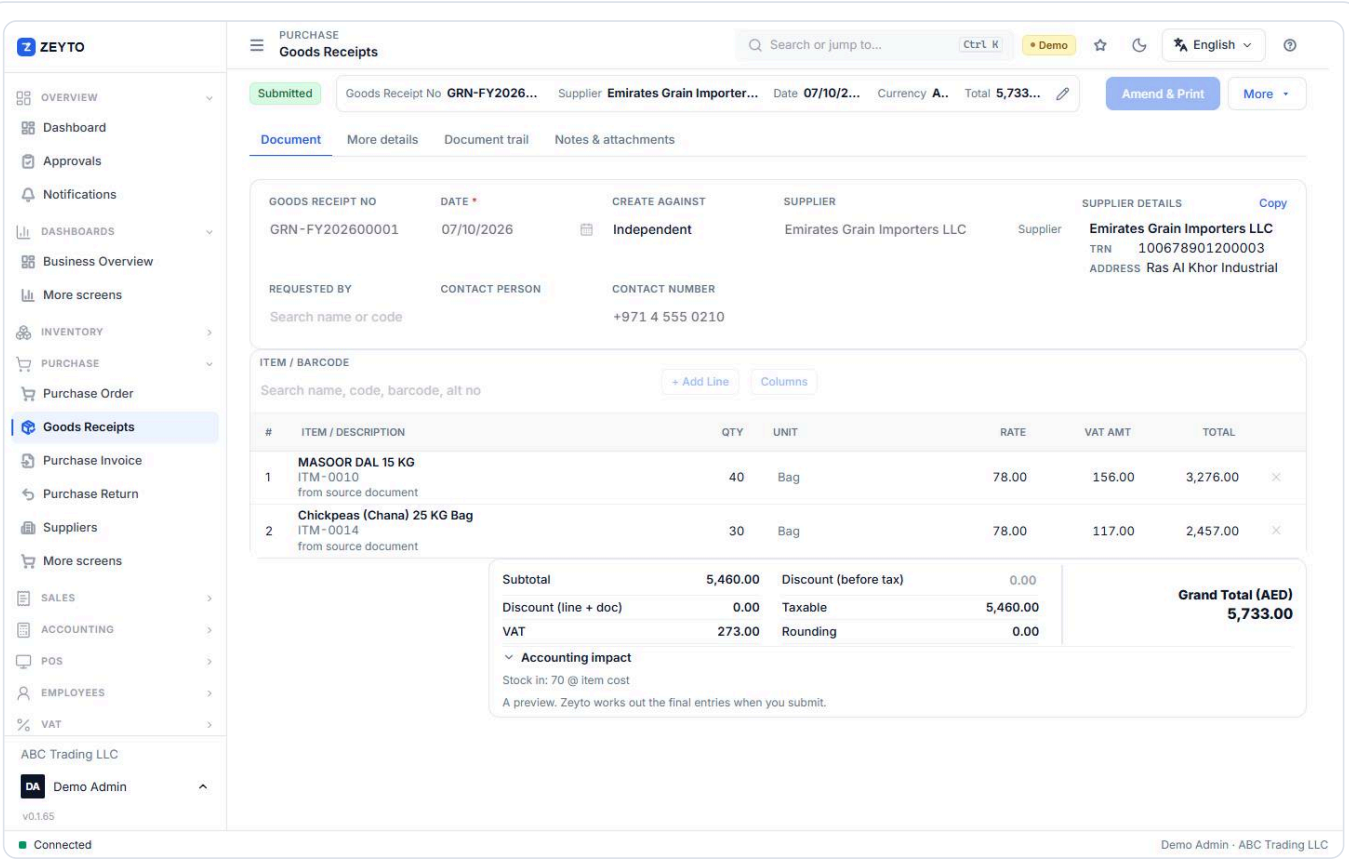
The supplier's invoice arrives at the same 13.00. VAT is 5% of 130.00 = 6.50, so the supplier is owed 136.50.

PURCHASE INVOICE PINV-	DR	CR
2150 Goods Received Not Invoiced	130.00	
1400 VAT Input	6.50	
2100 Trade Payables		136.50
Total	**136.50**	**136.50**

The invoice posts no stock row. The goods are already in. After the invoice, account 2150 is back to zero for this receipt, and the invoice's ledger row carries `against_doc_id` pointing at the receipt. That link is how the GRNI report knows the receipt is invoiced.



GRNI in time. The liability sits in 2150 between the two documents. The invoice moves it to the real payable. If you see old balances in 2150, the GRNI report lists the receipts nobody has invoiced.



Goods Receipt GRN-FY202600001. The two lines of the order (70 bags, 5,733.00 including VAT 273.00) are marked "from source document". The Accounting impact preview under the totals reads only "Stock in: 70 @ item cost". It does not list the Dr Inventory and Cr GRNI lines that the posting writes, so use Postings after you submit.

When the supplier's price differs from the order

The invoice is the truth. The receipt booked the stock at the order rate, so a different invoice rate leaves a difference. Zeyto sends the difference to where the goods are now.

- For units still in stock, the difference goes to Inventory. The item's average cost moves.
- For units already sold, it goes to Cost of Goods Sold 5000, or to **Purchase Price Variance** 6950 where your chart of accounts has that account.
- When an invoice covers only part of a receipt, each partial invoice clears its share. The last partial invoice clears the exact remainder, so 2150 ends at zero.

REAL EXAMPLE

Invoice is dearer: 10 at 10.00, billed at 11.00 (golden test GS_GRNI_02)

The receipt posts Dr Inventory 100.00 and Cr GRNI 100.00. The invoice says 10 × 11.00 = 110.00. All 10 units are still in stock, so the 10.00 extra goes into Inventory.

PURCHASE INVOICE	DR	CR
2150 Goods Received Not Invoiced	100.00	
1300 Inventory (price difference)	10.00	
2100 Trade Payables		110.00
Total	**110.00**	**110.00**

The invoice also writes a value-only stock row (no quantity, only value). The item's moving average cost goes from 10.00 to 11.00. The test journal has no VAT line, so the figures stay short.

REAL EXAMPLE

Part of the goods already sold: 10 at 10.00, 4 sold, invoice at 9.00 (golden test GS_GRNI_03)

You received 10 units for 100.00 and sold 4. The supplier now bills 9.00 a unit, 90.00 in all. The invoice is 10.00 less than the receipt. Of that, 6 units are still in stock (6 × 1.00 = 6.00) and 4 are sold (4 × 1.00 = 4.00).

PURCHASE INVOICE	DR	CR
2150 Goods Received Not Invoiced	100.00	
1300 Inventory (6 units still held)		6.00
5000 Cost of Goods Sold (4 units sold)		4.00
2100 Trade Payables		90.00
Total	**100.00**	**100.00**

The same case with the invoice dearer, at 12.00 a unit (golden test GS_GRNI_03B), debits Inventory 12.00 for the 6 held units and debits a Purchase Price Variance account 8.00 for the 4 sold ones, with Cr Trade Payables 120.00. Cost of sales already posted for the earlier sale is never rewritten.

RULE: TWO RECEIPTS, ONE INVOICE

One invoice can clear several receipts from the same supplier. It posts one debit leg to 2150 per receipt, each with its own `against_doc_id`. In golden test GS_GRNI_05 two receipts of 100.00 and 140.00 and a single invoice produce legs of 100.00 and 140.00 on 2150, 2.50 on Inventory, and 242.50 on Trade Payables.

A direct invoice without a receipt

If you skip the receipt, the invoice does everything. With **Update Stock** ticked it receives the goods too. Service lines debit an expense account instead of Inventory.

REAL EXAMPLE

Direct invoice, 10 units at 12.50 (golden test GS_PI_01)

PURCHASE INVOICE	DR	CR
1300 Inventory	125.00	
1400 VAT Input	6.25	
2100 Trade Payables		131.25
Total	**131.25**	**131.25**

One stock row is written, 10 in at 12.50. If you untick Update Stock, no stock row is made, so use that only for bills where the goods were or will be received on another document.

RECEIPTS FROM BEFORE GRNI

Receipts posted before the GRNI account existed (migration 0113, November 2026) keep the old rule. Their invoice debits Inventory and shows the price difference directly as cost of sales or variance. In golden test GS_GRNI_08 such an invoice posts Dr Inventory 100.00, Dr Cost of Goods Sold 5.00, Cr Trade Payables 105.00. The GRNI report marks these rows **Before GRNI** in its Status column.

> Source: `tests/Zeyto.Tests/GoldenGrniTests.cs`, `tests/Zeyto.Tests/GoldenPostingTests.cs`, `src/Zeyto.Edge/Domain/GlMapper.cs`, `src/Zeyto.Edge/Domain/PostingEngine.cs`, `docs/operations/voucher-matrix-purchase-2026-11-04.md`

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4. Freight and other charges: how they reach the item cost

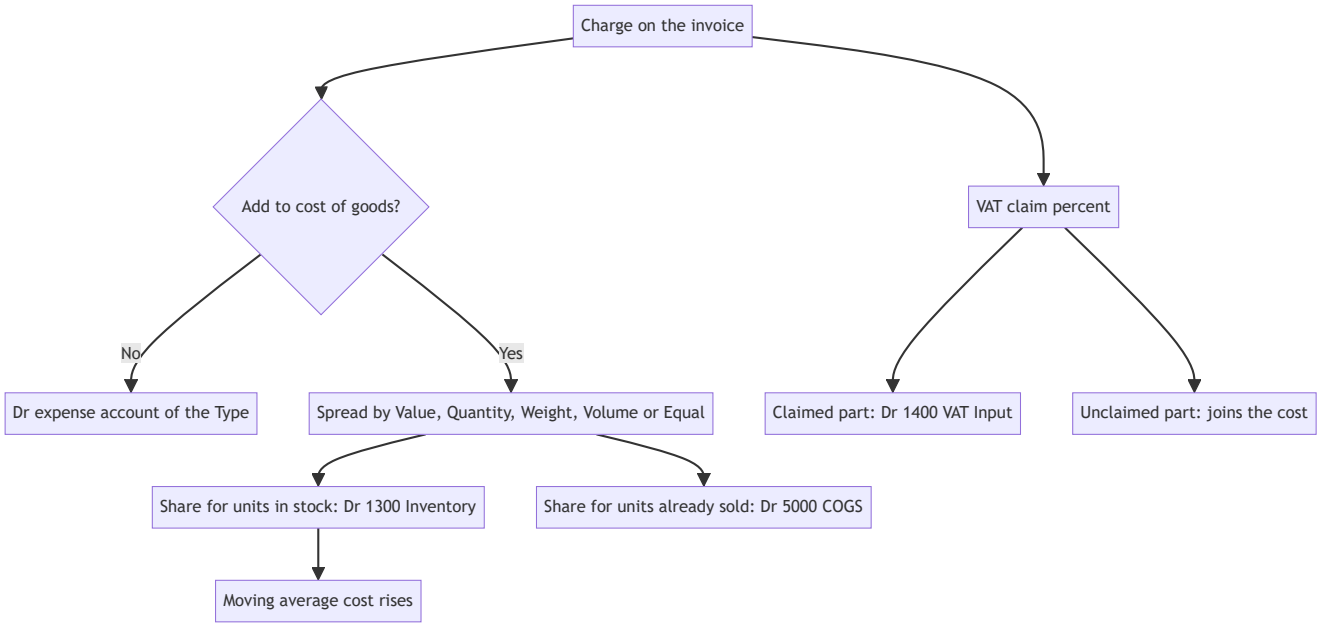
The supplier's price is rarely the whole cost of the goods. Freight, customs, insurance and unloading all belong in the item cost if you want stock value and margins to be true. Zeyto does this with the **Charges** card on the Purchase Invoice. You enter a charge once and the system spreads it across the goods lines and writes it into the stock rows.

SET UP EXPENSE TYPES FIRST

The Charges card needs at least one expense type. Until you add freight, customs or clearing types in `Settings ▸ Expense Types`, the invoice shows the note "No purchase expense types yet" in place of the card.

The fields of a charge

FIELD	WHAT IT DOES
Type	The kind of charge (freight, customs, and so on). It comes from `Settings ▸ Expense Types` and decides the expense account used when the charge is not added to cost.
Amount	The charge before VAT.
Payer	**Same supplier** (the charge is on this invoice), **Another supplier** (a forwarder bills you separately) or **Paid by us** (you paid cash or card yourself).
Billed by	The other supplier, when Payer is Another supplier.
Paid with	The cash or bank account, when Payer is Paid by us.
Add to cost of goods	Ticked: the charge joins the item cost. Not ticked: it is booked as an expense.
Spread by	How the charge is shared across the goods lines: **Value**, **Quantity**, **Weight**, **Volume** or **Equal**.
VAT claim %	How much of the VAT on the charge you may claim back. The part you cannot claim joins the cost.



Where a charge goes. The share for units already sold cannot change a sale that is posted, so it is booked as cost of goods sold in the period of the charge.

REAL EXAMPLE

Freight capitalised by value (golden test GS_CHG_01)

One invoice from the same supplier has three lines.

LINE	QTY	RATE	AMOUNT
Item A	10	100.00	1,000.00
Item B	5	200.00	1,000.00
Freight (charge, added to cost, spread by Value)	1	200.00	200.00

The two goods lines are worth the same, so each carries half of the freight: 100.00. VAT is 5% of 2,200.00 = 110.00, so the supplier is owed 2,310.00.

PURCHASE INVOICE	DR	CR
1300 Inventory (goods 2,000.00 + freight 200.00)	2,200.00	
1400 VAT Input (50.00 + 50.00 + 10.00)	110.00	
2100 Trade Payables		2,310.00
Total	**2,310.00**	**2,310.00**

The stock ledger gets two rows, and both have a value of 1,100.00:

ITEM	QTY IN	VALUE	COST PER UNIT
Item A	10	1,100.00	110.00
Item B	5	1,100.00	220.00

Item A cost 100.00 on the bill and is now stocked at 110.00. Item B cost 200.00 and is stocked at 220.00. The VAT ledger has one INPUT row: taxable 2,200.00, VAT 110.00, VAT return box 9.

Three variations from the same test file show the other settings.

SETTING	RESULT FOR THE SAME INVOICE
VAT claim % set to 0 (GS_CHG_02)	Dr 1300 2,210.00, Dr 1400 100.00, Cr 2100 2,310.00. The 10.00 of freight VAT you cannot claim becomes cost, so each stock row is 1,105.00. The supplier is still owed the full 2,310.00.
Add to cost of goods not ticked (GS_CHG_03, one goods line of 1,000.00 and freight 200.00)	Dr 1300 1,000.00, Dr freight expense 6910 200.00, Dr 1400 60.00, Cr 2100 1,260.00. The goods keep their invoice cost.
Charge on a Goods Receipt that is already invoiced (GS_CHG_09, 100.00 on 10 units at 100.00)	Dr 2150 1,000.00, Dr 1300 100.00, Cr 2100 1,100.00. The average cost goes from 100.00 to 110.00.

A charge that arrives late

The forwarder's bill often comes weeks after the goods. Open the posted invoice and use `More ▾` then **Add charge**. The charge becomes its own purchase bill, owed to the forwarder (Payer: Another supplier). Zeyto splits it between the units still in stock and the units already sold.

REAL EXAMPLE

Late freight after part of the stock is sold (golden test GS_CHG_23)

You bought 10 units at 100.00 and sold 4. A freight bill of 100.00 plus 5.00 VAT arrives from a forwarder. The 6 units still held carry 6/10 of it: 60.00. The 4 sold units carry 40.00, which goes to cost of goods sold.

CHARGE BILL FROM THE FORWARDER	DR	CR
1300 Inventory (6 units held)	60.00	
5000 Cost of Goods Sold (4 units sold)	40.00	
1400 VAT Input	5.00	
2100 Trade Payables (the forwarder)		105.00
Total	**105.00**	**105.00**

One value-only stock row is written. After it the item has 6 units worth 660.00, and the average cost has moved from 100.00 to 110.00. The allocation record `doc_charge_alloc` keeps amount 100.00 and cogs_amount 40.00. The earlier sale's cost is not rewritten.

RULE: CANCEL AND AMEND FOLLOW THE CHARGE

Cancelling the invoice cancels its charge bills first and reverses everything, so the forwarder owes nothing and account 1300 nets to zero (golden test GS_CHG_24). Amending the invoice, for example when the freight turns out to be 300.00, cancels the bill and raises it again at the new amount (GS_CHG_25). A charge dated inside a VAT period you have already filed is refused with `PERIOD_FILED` (GS_CHG_13).

TIP

Older invoices have a single Landed Cost field. It still works for those documents. In golden test GS_PI_02 a landed cost of 20.00 on 20 units raised the stock row to a value of 220.00 and a cost of 11.00 a unit. For new invoices use the Charges card, because it handles another supplier, VAT claim and sold units.

Not verified in code: the Landed Cost Register report. Its in-app help still describes only the old Landed Cost field and says nothing is listed for the new charge bills.

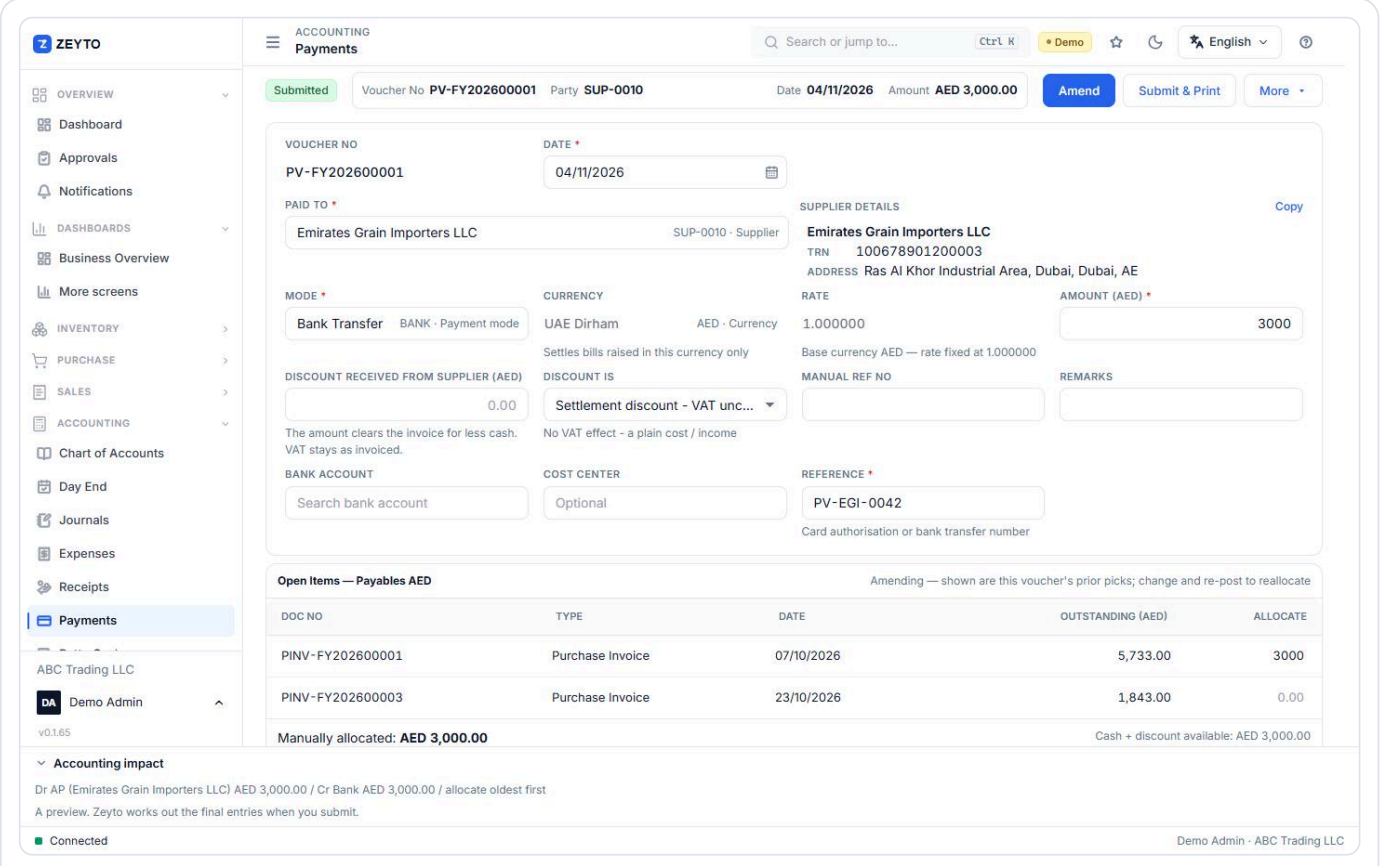
Source: `tests/Zeyto.Tests/GoldenDocumentChargesTests.cs`, `tests/Zeyto.Tests/GoldenPostingTests.cs`, `src/Zeyto.Edge/Data/Migrations/0111-document-charges.sql`, `src/Zeyto.Web/src/help/content/purchase.ts`

5. Paying the supplier

A supplier payment is its own document. It reduces what you owe on specific bills and records which bills it paid. That record, `gl_entry.against_doc_id`, is what the bill-wise reports read.

Tutorial 2: pay two bills with one payment

1. **Open the payment screen.** Go to `Accounting ▸ Payments` and press `+ New`.
2. **Pick the supplier.** In **Paid To** type part of the supplier's name. The picker is a typed multi-column dropdown. Choose the right row.
3. **Pick how you pay.** Choose the **Mode** (the screenshot shows Bank Transfer) and type the **Amount** you are paying. Type the **Reference**, which is required (a card authorisation or bank transfer number).
4. **Look at Open Items.** The grid lists the supplier's unpaid bills with their Outstanding amount. The bar at the bottom says Zeyto allocates oldest first.
5. **Change the split if you want.** Use `Allocate` to pay a newer bill first or to pay part of a bill.
6. **Submit.** The payment posts and each bill's balance falls. Open `Reports ▸ Party Statement` for the supplier and check the running balance.



Payment Voucher PV-FY202600001. Paid To Emirates Grain Importers LLC, **Mode** Bank Transfer, **Amount (AED)** 3000, and a required **Reference** (PV-EGI-0042). **Open Items - Payables AED** lists the supplier's bills with Doc No, Type, Date, Outstanding (AED) and Allocate: 3000 is allocated to PINV-FY202600001 and nothing to PINV-FY202600003. The bar at the bottom reads "Dr AP ... AED 3,000.00 / Cr Bank AED 3,000.00 / allocate oldest first". The Discount Received From Supplier box and the Discount Is choice sit above the grid.

REAL EXAMPLE

One payment of 120.00 against bills of 100.00 and 50.00 (golden test GS_PV_01)

You owe two bills, 100.00 and 50.00. You pay 120.00 by bank. The older bill is cleared in full and the newer one is part paid.

SUPPLIER PAYMENT PV-	DR	CR
2100 Trade Payables (older bill, against_doc_id set)	100.00	
2100 Trade Payables (newer bill, against_doc_id set)	20.00	
1100 Bank		120.00
Total	**120.00**	**120.00**

Afterwards the older bill owes 0.00 and the newer one owes 30.00 (50.00 less 20.00).

What else a payment can do

Pay more than the bills

Whatever is left after the allocation is posted as Dr **Supplier Advances** 1450. It shows as a balance in your favour with the supplier and can be applied to a later invoice.

Settlement discount

Type it in **Discount Received From Supplier (AED)**. The note under the box says the amount clears the invoice for less cash. The **Discount Is** choice (the screenshot shows "Settlement discount - VAT unchanged") says whether VAT changes. The discount is posted to **Discount Received**.

Foreign currency

When the bill and the payment have different rates, the exchange difference goes to the Realized FX account.

Post-dated cheque

Choosing the **PDC Cheque** mode credits PDC Payable instead of the bank, until the cheque clears.

Advances: paying before the bill exists

Use `Accounting ▸ Advances` to pay a supplier before you have their invoice. The advance debits 1450 for the net amount and debits VAT Input for the VAT you paid.

REAL EXAMPLE

Advance of 105.00, then applied to a bill of 100.00 (golden tests GS_ADV_02 and GS_ADVVAT_02)

You pay a supplier 105.00 in cash. That is 100.00 plus 5.00 VAT.

SUPPLIER ADVANCE ADP-	DR	CR
1450 Supplier Advances	100.00	
1400 VAT Input	5.00	
1000 Cash in Hand		105.00
Total	**105.00**	**105.00**

Later the bill arrives for 100.00 plus 5.00 VAT. On the invoice you use **Apply advances** and the 105.00 covers it fully. The invoice credits 1450 for the net 100.00 and credits 1400 for the 5.00 of advance VAT, so you do not claim the same input VAT twice.

PURCHASE INVOICE WITH THE ADVANCE APPLIED	DR	CR
Expense account of the line (6900 in the test)	100.00	
1400 VAT Input	5.00	
1450 Supplier Advances		100.00
1400 VAT Input (advance VAT reversed)		5.00
Total	**105.00**	**105.00**

No payable is left. Input VAT over both documents is 5.00 in total (5.00 on the advance, 5.00 less 5.00 on the invoice).

TIP

On the Purchase Invoice itself, the **Payment Details** card pays the bill at the moment you save it, in cash or bank. If you enter more than the bill, the excess becomes a supplier advance on 1450.

> Source: `src/Zeyto.Edge/Domain/GlMapper.cs`, `tests/Zeyto.Tests/GoldenPostingTests.cs`, `tests/Zeyto.Tests/GoldenAdvanceVatTests.cs`, `src/Zeyto.Web/src/help/content/accounting-vouchers.ts`

6. Returns, debit notes, amend and cancel

Sending goods back

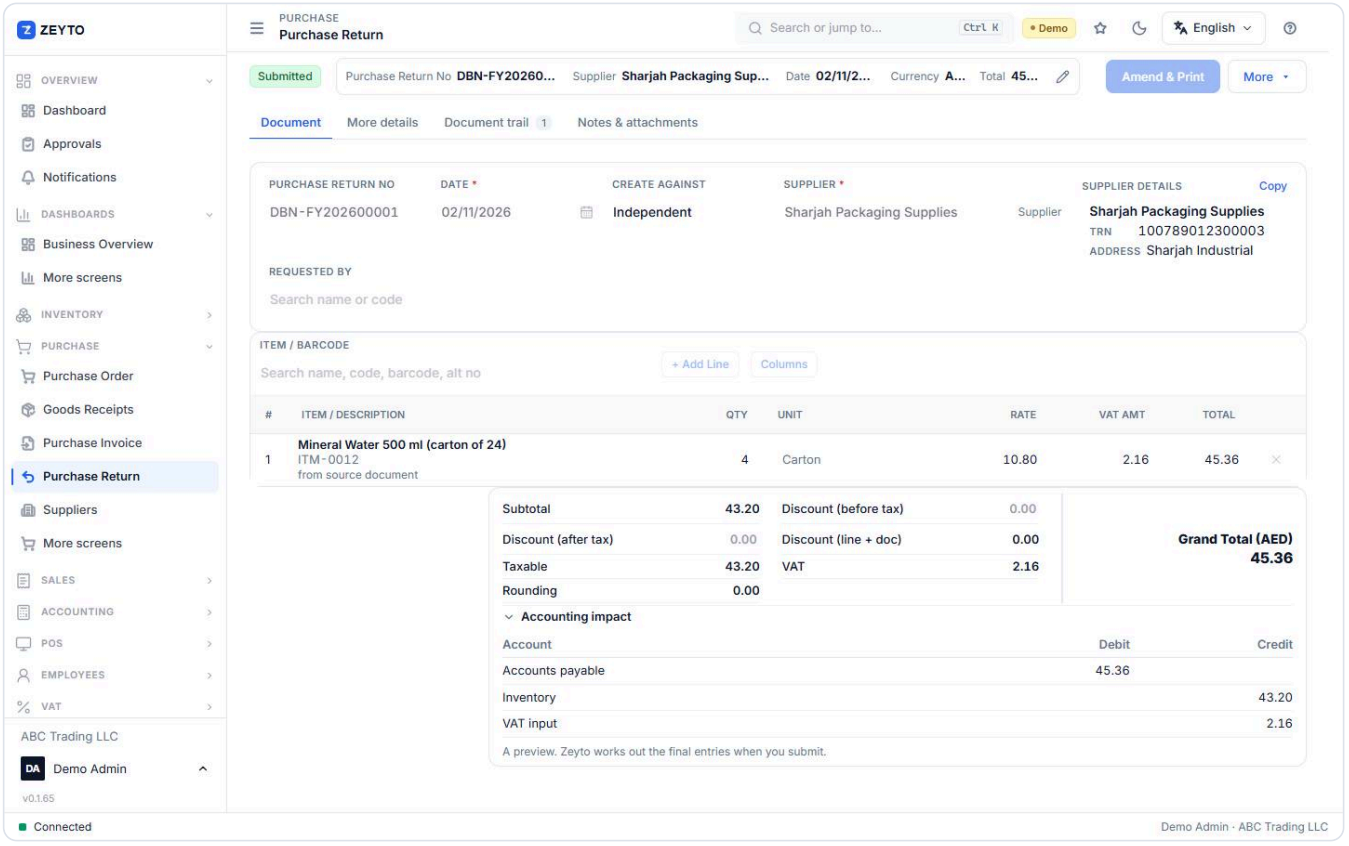
Make the Purchase Return from the invoice that bought the goods, using **Create Purchase Return** (or Create Against on a new return). The number starts `DBN-`. It does three things at once. It takes the goods out of stock at their current cost. It reduces what you owe the supplier at the invoice price. It reverses the input VAT, with negative rows in the VAT ledger so the VAT return falls by the same amount.

REAL EXAMPLE

Return 4 units bought at 10.00 (golden test GS_PR_01)

The return value is 4 × 10.00 = 40.00 and the VAT is 5% = 2.00, so the supplier credits 42.00. The stock row is 4 units out at 10.00. The VAT ledger gets an INPUT row of taxable minus 40.00 and VAT minus 2.00.

PURCHASE RETURN DBN-	DR	CR
2100 Trade Payables (against the original invoice)	42.00	
1300 Inventory		40.00
1400 VAT Input		2.00
Total	**42.00**	**42.00**



Purchase Return DBN-FY202600001. The demo company sends 4 cartons of Mineral Water 500 ml (carton of 24) back to Sharjah Packaging Supplies at 10.80: 43.20 plus VAT 2.16 makes 45.36. The Accounting impact preview shows Accounts payable Dr 45.36, Inventory Cr 43.20 and VAT input Cr 2.16, the same shape as the golden test above.

REAL EXAMPLE

Return after freight was added to the cost (golden test GS_CHG_12)

You bought 10 units at 100.00 and added 100.00 of freight to the cost, so each unit is stocked at 110.00. You send 4 back. The supplier credits the invoice price, 4 × 100.00 = 400.00. The goods leave stock at 4 × 110.00 = 440.00. The supplier does not refund your freight, so the difference of 40.00 goes to **Purchase Price Variance** 6950.

PURCHASE RETURN DBN-	DR	CR
2100 Trade Payables	400.00	
6950 Purchase Price Variance	40.00	
1300 Inventory		440.00
Total	**440.00**	**440.00**

The 6 units left are worth 660.00, still 110.00 each. The average cost does not change on a return.

Debit notes

A Debit Note is a Purchase Return with **Update Stock** switched off. It is not a separate document type and uses the same numbers. Use it when the supplier owes you money but no goods move, for example a price correction after you were overcharged.

Not verified in code: which account a Debit Note without stock credits. The posting map credits Inventory only for stock movement and Expense for service lines, so check the Postings view of your first Debit Note before relying on it.

Amend and cancel

Amend

Use it to correct a posted document. The old rows are reversed and new rows are posted. The number gets `/A1`, then `/A2` and so on, and the status shows AMENDED.

Cancel

Reverses every row of the document and shows CANCELLED. The document number stays used. Open **Postings** to see the reversal rows, flagged as reversals in the stock ledger.

When it is refused

A document with a child that still stands returns `CHAIN_CHILDREN`. Cancel the child first. A document dated inside a VAT period you filed returns `PERIOD_FILED`.

Cancel and amend of receipts and invoices under GRNI are covered by golden tests GS_GRNI_06 and GS_GRNI_07.

WARNING

Cancelling a Purchase Invoice also cancels its charge bills. Reverse the supplier payment that paid the invoice before you cancel it, or the supplier's account will show a payment with no bill.

Not verified in code: whether Cancel refuses an invoice that a Supplier Payment is allocated to. The tested refusal is for documents converted from it (a receipt with an invoice, an invoice with a return).

> Source: `src/Zeyto.Edge/Domain/GlMapper.cs`, `tests/Zeyto.Tests/GoldenPostingTests.cs`, `tests/Zeyto.Tests/GoldenDocumentChargesTests.cs`, `tests/Zeyto.Tests/GoldenGrniTests.cs`, `src/Zeyto.Web/src/help/content/purchase.ts`

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7. Reverse charge on purchases

Some purchases, such as services from a supplier outside the UAE, are not charged VAT by the supplier. The law makes you declare the VAT yourself and claim it back in the same return. This is called reverse charge (RCM). Zeyto does both halves for you when the purchase line carries a tax code of the reverse-charge kind.

- You declare the VAT: Cr **VAT Output** 2200, shown in box 3 of the VAT return.
- You claim it: Dr **VAT Input** 1400, shown in box 10.
- The two cancel in the ledger. The supplier is owed only the net amount.

REAL EXAMPLE

Goods with normal VAT and a freight service under reverse charge (golden test GS_CHG_06)

The invoice has 10 units at 100.00 (1,000.00, normal 5% VAT) and a freight service of 200.00 under reverse charge. The supplier shows no VAT on the freight. You self-assess 5% of 200.00 = 10.00.

PURCHASE INVOICE	DR	CR
1300 Inventory (goods 1,000.00 + freight 200.00)	1,200.00	
1400 VAT Input (goods)	50.00	
1400 VAT Input (reverse charge, box 10)	10.00	
2200 VAT Output (reverse charge, box 3)		10.00
2100 Trade Payables (1,200.00 + 50.00)		1,250.00
Total	**1,260.00**	**1,260.00**

The VAT ledger gets three rows: INPUT taxable 1,000.00 VAT 50.00 box 9, INPUT taxable 200.00 VAT 10.00 box 10, and OUTPUT taxable 200.00 VAT 10.00 box 3. If you cannot claim the reverse-charge input VAT (GS_CHG_07), the output VAT of 10.00 is still declared, nothing is claimed, and the 10.00 joins the freight cost: Dr 1300 1,210.00, Dr 1400 50.00, Cr 2200 10.00, Cr 2100 1,250.00.

The reverse-charge voucher

When the whole purchase is a reverse-charge service with no stock, use `Purchase ▸ RCM Self-Accounting`, the Taxable Journal Voucher (RCM). For a service of 1,000.00 it posts the expense, the self-assessed VAT both ways, and the payable (golden test GS05_RCM_01).

TAXABLE JOURNAL VOUCHER (RCM)	DR	CR
Expense account	1,000.00	
1400 VAT Input	50.00	
2200 VAT Output		50.00
2100 Trade Payables		1,000.00

TAXABLE JOURNAL VOUCHER (RCM)	DR	CR
Total	**1,050.00**	**1,050.00**

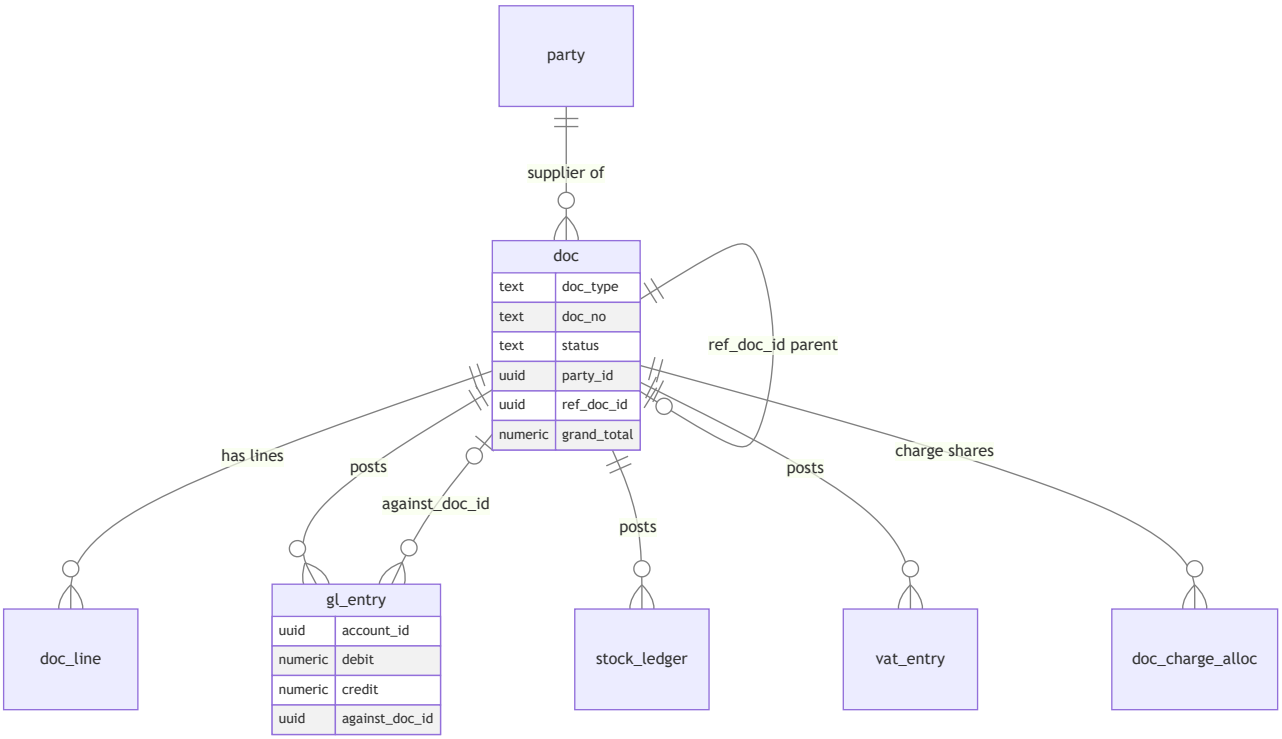
Whether an item counts as reverse charge depends on its **RCM Category** on the Item master (Pricing & Tax tab) and on `Settings ▸ RCM Categories`. The item also has an **RCM Excluded** tick.

Not verified in code: the in-app help of the Purchase Invoice says a reverse-charge line does not declare VAT on the invoice and must be declared with a voucher. The posting code and the tests above show that the invoice does self-assess on a line with a reverse-charge tax code. This chapter follows the code. Check your first reverse-charge invoice in Postings.

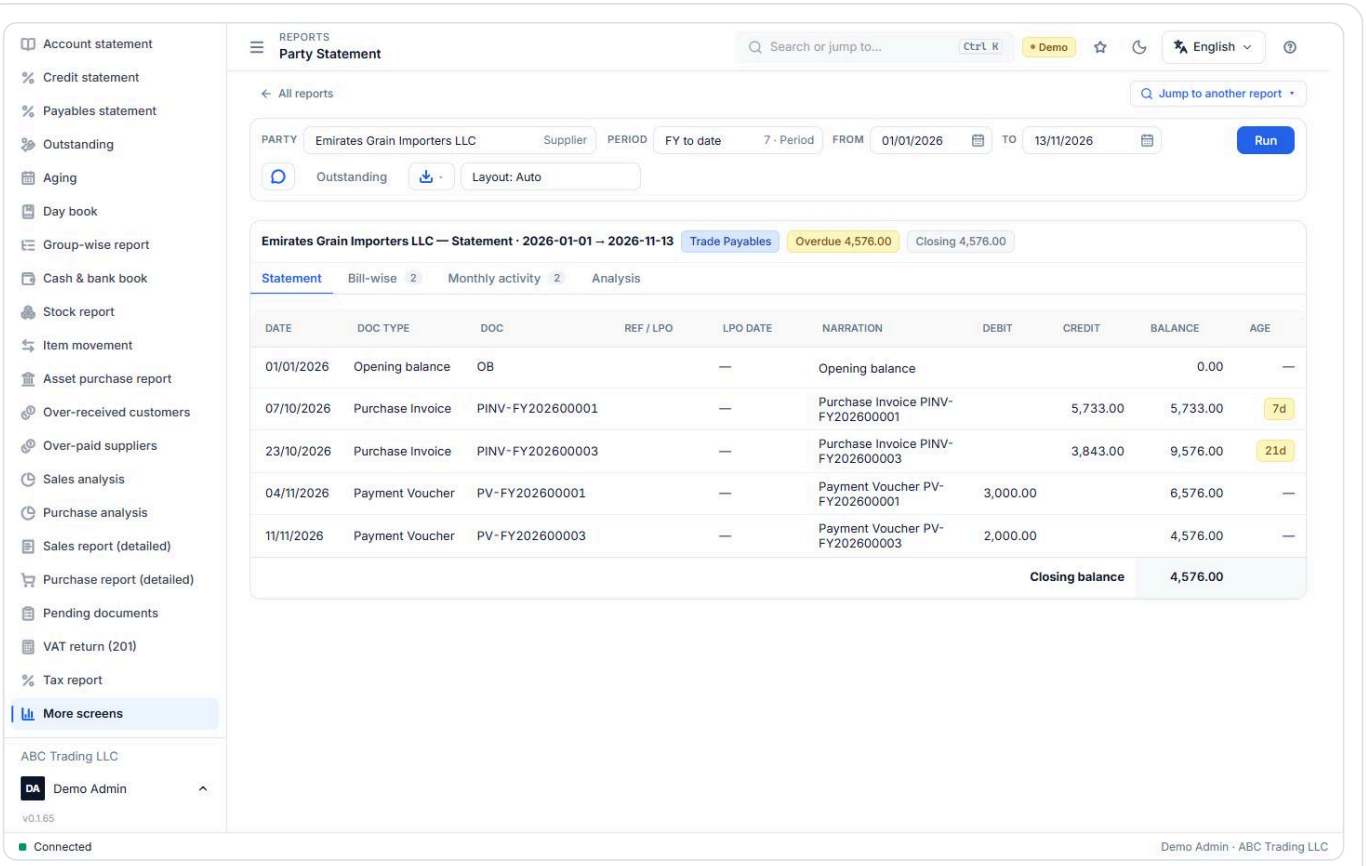
> Source: `tests/Zeyto.Tests/GoldenDocumentChargesTests.cs`, `tests/Zeyto.Tests/GoldenGs05Tests.cs`, `src/Zeyto.Edge/Domain/GlMapper.cs`, `src/Zeyto.Web/src/help/content/purchase.ts`

8. Reports, statements and the data behind them

Every purchase document writes rows into shared ledger tables, and every report reads those tables. This is why an entry made on one screen shows up everywhere without any extra step.



Where a purchase lives. One `doc` row per document, with `doc_type` PO, GRN, PI, PR, PV or ADP. A document points to its parent in `ref_doc_id`. The ledgers are append-only: a cancel adds reversing rows and never edits old ones.



Party Statement for a supplier. Emirates Grain Importers LLC, 01/01/2026 to 13/11/2026, Statement tab. The columns are Date, Doc Type, Doc, Ref / LPO, LPO Date, Narration, Debit, Credit, Balance and Age. Two purchase invoices (5,733.00 and 3,843.00) are in Credit and two payment vouchers (3,000.00 and 2,000.00) in Debit. The closing balance is 4,576.00 (5,733.00 + 3,843.00 - 3,000.00 - 2,000.00). The other tabs are Bill-wise, Monthly activity and Analysis.

Which report answers which question

YOU WANT TO KNOW	OPEN
What did I buy, by bill	`Reports ▸ Purchase Register`. Also Purchase Return Register, Purchase Order Register, Goods Receipt Register, Purchase Line Detail, Purchase Analysis.
Which orders are still open	**Pending Purchase Orders**
Which receipts have no bill yet	**Goods Received Not Invoiced**. Columns include Pending Value and Value (before GRNI). Status is Not invoiced, Before GRNI or Manual entry.
What I owe each supplier and how old it is	**Outstanding - Supplier (bill-wise)**. Columns: As on, Bill, Due, Paid, Balance, Days Overdue, and Aging 0-30, 31-60, 61-90 and 90+.
One supplier's account, with running balance	**Party Statement** (choose Supplier (AP), then Running balance or Bill-wise)
Suppliers I have overpaid	**Over-paid suppliers**
Payables overall	**Payables statement**. The balance of account 2100 in the Trial Balance should match it.
Freight and charge bills	**Landed Cost Register** (see the note in section 4)

YOU WANT TO KNOW	OPEN
Purchase and stock figures at a glance	The **Purchase Dashboard** and **Inventory Dashboard**

KNOWN BEHAVIOUR OF THE REPORTS

The product's own purchase test matrix (1,324 checks, 1,323 pass, one not applicable) lists these open items, so you do not waste time hunting for a mistake that is not yours. (1) Open advances are netted in the party statements but not in the ageing and bill-wise reports. (2) A purchase invoice that was fully paid in cash on the spot does not appear in the party statement. (3) Some report headings show dates in ISO form (the supplier statement title reads 2026-01-01 to 2026-11-13) instead of DD/MM/YYYY. (4) A foreign-currency bill can leave a small residue after full payment (the test shows 1,050.0014 USD). (5) The requirement to type a Supplier Invoice No is made by the screen only, not by the server.

The Reports sidebar of the demo company names the entries Payables statement, Outstanding, Aging, Purchase analysis, Purchase report (detailed), Pending documents and Over-paid suppliers. The table above uses the longer names of the report catalogue help. Match them by purpose.

> Source: `src/Zeyto.Web/src/help/content/reports-catalog-sales-purchase.ts`, `src/Zeyto.Web/src/help/content/reports-statements.ts`, `src/Zeyto.Edge/Data/Migrations/0005-ledgers.sql`, `src/Zeyto.Edge/Data/Migrations/0004-documents.sql`, `docs/operations/voucher-matrix-purchase-2026-11-04.md`

9. Common mistakes and Check yourself

Common mistakes

SYMPTOM	CAUSE	FIX
The GRNI report lists a receipt although the bill was entered	The bill was entered as a direct invoice and not converted from the receipt, so nothing links it to the receipt.	Cancel the direct invoice and make it again with `Convert` from the receipt.
Stock is doubled after you book an invoice for goods you already received	The invoice was a direct invoice with Update Stock ticked, so it received the goods a second time.	Cancel it and convert from the receipt, or untick Update Stock.
Cancel or Amend is refused with CHAIN_CHILDREN	A later document made from this one still stands.	Open the Document trail and cancel the child first (the return or invoice, then the receipt).
The invoice shows a price difference against Cost of Goods Sold or Purchase Price Variance	Some of the received units were already sold, so their share of the difference cannot go back into stock.	This is correct. Check the split with the Postings view. Keep sales entries and receipts on time to reduce it.
Item cost did not include freight	Freight was entered without Add to cost of goods, or on a separate expense voucher.	Add the charge on the invoice with Add to cost of goods ticked, or use More ▾ then Add charge.

SYMPTOM	CAUSE	FIX
A return leaves a Purchase Price Variance debit	The goods leave at current cost (with freight) but the supplier credits only the invoice price.	This is correct. See the 40.00 example in section 6.
The payment screen shows no open bills	The bills are still DRAFT, or belong to another supplier.	Submit the bills and check the supplier name in Paid To.
An overpayment cannot be found in the payables	It was posted to Supplier Advances 1450, not to Trade Payables.	Open Over-paid suppliers, then use Apply advances on the next invoice.
A reverse-charge service shows VAT in both boxes 3 and 10	This is the self-assessment.	No fix. The two amounts cancel and the payable is the net only.

Check yourself

1. Submit a Goods Receipt for 10 units at 13.00. Open Postings. You should see Dr 1300 and Cr 2150 for 130.00 and no VAT line.
2. Convert that receipt to a Purchase Invoice at the same price. The invoice should debit 2150 130.00 and 1400 6.50 and credit 2100 136.50, with no new stock row.
3. Open `Reports ▸ Goods Received Not Invoiced`. The receipt should no longer be Not invoiced.
4. Add a freight charge to cost on a new invoice. The stock ledger value of the item should equal the goods plus the share of freight, and the item's average cost should rise by freight divided by quantity.
5. Pay two bills with one payment. In Party Statement the balance should fall by exactly the amount you paid, and the older bill should be cleared first.
6. Make a Purchase Return for part of a bill. Account 2100 should fall by the invoice price plus VAT, and VAT Input should fall by the VAT on the returned part.
7. Compare the Payables statement total with the balance of account 2100 in the Trial Balance, adjusting for Supplier Advances 1450.
8. Try to Cancel a Goods Receipt that already has a submitted Purchase Invoice made from it. You should be refused with CHAIN_CHILDREN.

> Source: `src/Zeyto.Web/src/help/content/purchase.ts`, `tests/Zeyto.Tests/GoldenGrniTests.cs`, `docs/operations/voucher-matrix-purchase-2026-11-04.md`

DAILY WORK

Items, units and stock

After this chapter you can set up an item with its units and barcodes, price it, keep it in the right warehouses, follow every movement through the stock ledger, understand how its cost is worked out, and read the stock reports with confidence.

1. The big picture

Everything you buy, sell, move or count is an item. Three ideas hold the whole subject together.

One base unit

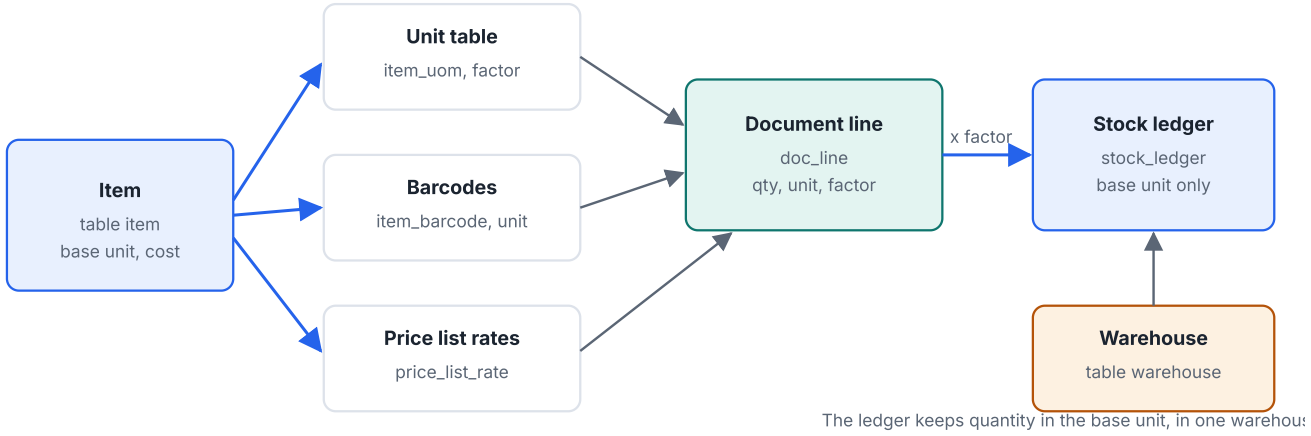
Every item has a **Base Unit**, the smallest unit you stock, such as a piece. The stock ledger always counts in the base unit. A bag, a box or a carton is a bigger unit that holds a fixed number of base units.

A unit table per item

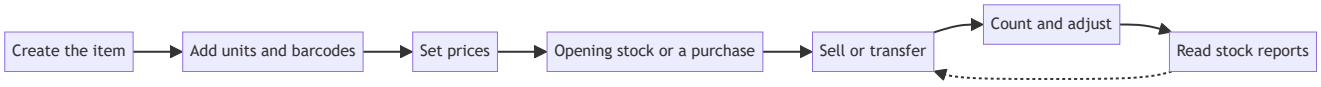
The other units of an item, with their **Factor to Base**, are kept in the item's own unit table (`item_uom`). A sales or purchase line can use only a unit from that table. Each unit can carry its own barcode.

One stock ledger

Every document that moves stock writes rows to `stock_ledger`: quantity in or out, rate, value, running balance and the average cost after the row. Stock reports read this one table, so they always agree.



From item to ledger. The unit table, barcodes and price rates decide what a line says. The factor turns the line's quantity into base units. The warehouse says where the stock sits.

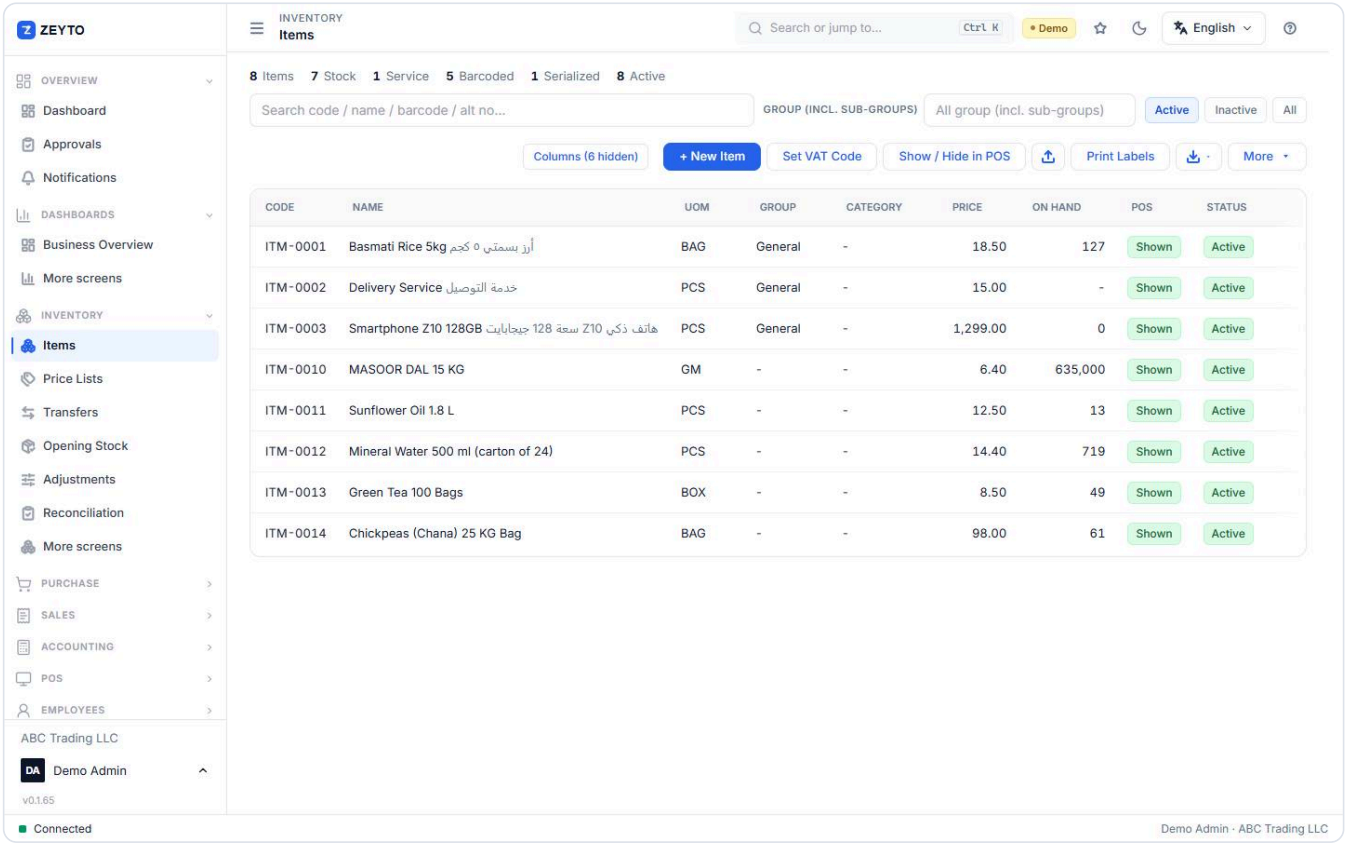


The life of a stock item. You do the first three steps once per item. The rest repeat every day. Each movement writes to the stock ledger and, where money is involved, to the accounts.

> Source: `src/Zeyto.Edge/Data/Migrations/0003-masters.sql`, `src/Zeyto.Edge/Data/Migrations/0005-ledgers.sql`, `src/Zeyto.Web/src/screens/ItemMaster.tsx`, `docs/operations/w56-item-units-barcode.md`

2. The item master

Open `Inventory ▸ Items` for the list and press `+ New` for the form. The top of the form has three cards. Below them are tabs for everything else. The list toolbar offers Import CSV/XLSX, Print Labels, and bulk actions to Set VAT Code and to Show or Hide in POS.



The Items register. Tiles count Items, Stock, Service, Barcoded, Serialized and Active. The search box reads "Search code / name / barcode / alt no...", with a Group filter and the Active, Inactive and All buttons. The toolbar has Columns, + New Item, Set VAT Code, Show / Hide in POS, import, Print Labels, export and More. The columns are Code, Name, UOM, Group, Category, Price, On Hand, POS and Status. MASOOR DAL 15 KG shows On Hand 635,000 in its base unit GM, while its Price 6.40 is the per-KG price, so the two columns are in different units.

The three cards at the top

CARD	FIELDS
General	**Item Code**, **Item Type** (Stock, Service or Bundle), **Status**, **Show in POS**, **Item Name**, **Arabic Name**, **Long Description**, **Item group**, **Brand**, **Category**. Group, Brand and Category are typed pickers, and you can create a new one from the picker.
Units	**Base Unit**, **Sales Unit**, **Purchase Unit**, **HS Code (customs)**, **EAN / GTIN**, and the unit grid with **Add Unit**. Grid columns: Unit, Factor to Base, Contains, Meaning, Barcode, Sales, Purchase, Remove.
Barcodes	The barcode grid with **Add Barcode** and **Generate EAN-13**. Columns: Barcode, Unit, Kind, Primary, Remove.

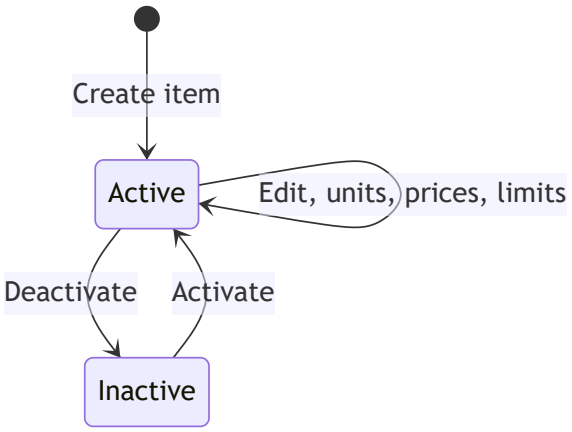
The tabs

TAB	WHAT YOU DO THERE
Pricing & Tax	In **Pricing & Costing**: **Cost Method** (Moving Average, Weighted Average, FIFO or LIFO), **Standard Cost**, and **Min Sales Price (per base unit)**. Below them the screen lists a Default Sales Price for each unit: Min Sales Price times the unit's factor. In the **Tax (VAT)** card: **VAT Code**, **Tax Category (e-invoice)**, **RCM Category (reverse charge)** and **RCM Excluded**.
Stock	**Stock Settings & Balances**: Reorder Level, Reorder Qty, Minimum Stock, Maximum Stock, Track Batch, Track Expiry, Track Serial / IMEI, Warranty Months, Unit weight and Unit volume. The purchase Charges card can Spread by Weight or by Volume.
Opening stock	The opening quantity, unit, unit cost, batch, expiry and serial numbers of this item in each warehouse. It is a window onto the same Opening Stock voucher as `Inventory ▸ Opening Stock`.
Suppliers	A live list of who you bought the item from (last date, last price, quantity, number of purchases, average price), plus manual rows with supplier part number, price, lead time, minimum order quantity and one preferred supplier. The preferred supplier shows on the Reorder report.
Alternatives	**Alternative Numbers** (other codes that find this item) and **Alternative Products**.
POS	A read-only view of the item's POS settings.
Pictures & notes	The item's pictures and free notes.
Masters	A reference view of the groups, brands, categories and units.
Controls & limits	Maximum discount %, Minimum selling price, Minimum margin % and maximum commission. A sales line outside these limits needs the permission `discount-over-limit` or `price-override`, or a manager approval at the till.

Not verified in code: whether the Opening stock, Suppliers and Controls & limits tabs (work item w36, migration 0180) are in the build your shop runs. They are in the product repository the handbook was written from.

Item types, status and groups

- **Stock** items are the only ones that hold quantity. **Service** items never create a stock row, so they can be sold or bought without any stock effect. **Bundle** is the third type in the Item Type list. This chapter does not cover it.
- Items are never deleted. Set **Status** to inactive to retire an item. It stays in history and reports and is no longer offered on new documents.
- **Item groups** form a tree, up to 8 levels deep. A group and an item each have a Show in POS setting. Manage groups in `Inventory ▸ Masters`.
- `Inventory ▸ Variants` builds a matrix from up to two attributes (for example size and colour). Each variant is saved as its own item.
- `Inventory ▸ Serials / IMEI` lists the serial numbers of items that have Track Serial / IMEI on.



Item status. An item has only two states, and it can move between them as often as you like. History and reports never lose an inactive item.

Tutorial 1: create a stock item with a bag, a kilogram and a barcode

1. **Open a blank form.** Go to `Inventory ▸ Items` and press `+ New`.
2. **Fill General.** Leave **Item Type** on Stock. Type the **Item Name**. Pick the **Item group**, **Brand** and **Category** in the typed pickers.
3. **Choose the Base Unit.** Pick the smallest unit you ever sell, for example KG or PCS. The base unit row of the grid always has factor 1.
4. **Add the bigger unit.** Press `Add Unit`, pick the unit (for example BAG) and fill **Contains** the natural way, for example 25 of the base unit. The **Meaning** column shows the result, and **Factor to Base** holds the number.
5. **Choose the defaults.** Pick the **Sales Unit** and **Purchase Unit**. They can only be the base unit or a unit in the grid. Picking one also ticks its Sales or Purchase column.
6. **Add the barcode.** In the Barcodes card press `Add Barcode` (or `Generate EAN-13`), type the number, and pick the **Unit** it stands for. Tick **Primary** for the main one.
7. **Set cost and price.** On **Pricing & Tax** pick the Cost Method and VAT Code. Type the **Min Sales Price (per base unit)**.
8. **Save.** Press `Save`. If a unit is missing from the grid, Save refuses and names it.

> Source: `src/Zeyto.Web/src/screens/ItemMaster.tsx`, `src/Zeyto.Web/src/help/content/inventory-masters.ts`, `docs/operations/w36-item-master-tabs-2026-11-07.md`, `docs/operations/w35-item-groups-2026-11-07.md`, `docs/operations/w17-service-items-2026-11-06.md`

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3. Units and barcodes in depth

How a unit conversion works

The base unit has factor 1. Every other unit stores **Factor to Base**, the number of base units it holds. When a line is saved, the document keeps the unit and its factor on the line (`doc_line.uom_id` and `doc_line.factor`). The stock ledger gets the quantity multiplied by the factor, in base units, and the rate divided by the factor.

ILLUSTRATIVE FIGURES

Buying by the carton (the screen's own hint: 10 PCS = 1 BOX, 12 BOX = 1 CARTON)

The unit grid hint says that if you fill **Contains** as 10 PCS in a BOX and 12 BOX in a CARTON, the screen works out BOX = 10 and CARTON = 120 PCS. Suppose you buy 5 CARTON at 1,200.00 a carton.

STEP	WORKING	RESULT
Base quantity in	5 CARTON x 120	600 PCS
Line value	5 × 1,200.00	6,000.00
Cost per base unit	1,200.00 / 120	10.00
Check	600 × 10.00	6,000.00

The stock ledger shows 600 in, at a rate of 10.00 a piece. The purchase invoice still prints 5 CARTON at 1,200.00.

The rules the product enforces (since 0.1.65)

RULE: A UNIT MUST BE IN THE ITEM'S OWN TABLE

The **Sales Unit**, the **Purchase Unit** and the unit of every barcode must be the base unit or a unit in the item's unit table. The Item master offers only those units. If you try to save a stray unit, Edge refuses with: "Add 'KG' to the item's unit table with its conversion to the base unit first". A unit you name as Sales Unit but have not ticked gets ticked for you, unless another unit already has the tick. There is one default per side.

RULE: A BARCODE BRINGS ITS OWN UNIT

The item list sent to the screens carries a map of barcode to unit (`scanUnits`). Scan a barcode that belongs to the BAG unit and the line is added in BAG. The line merges only with an existing line in the same unit. A barcode with no unit, and an Alternative Number, add the item's default unit.

RULE: A MISSING PRICE IS THE BASE PRICE TIMES THE FACTOR

For the line's unit, a rate in the price list wins. If the list has no rate for that unit, the line is priced at the base price multiplied by the unit's factor, rounded to 2 decimals. Before this rule a BAG line got the same number as a PCS line.

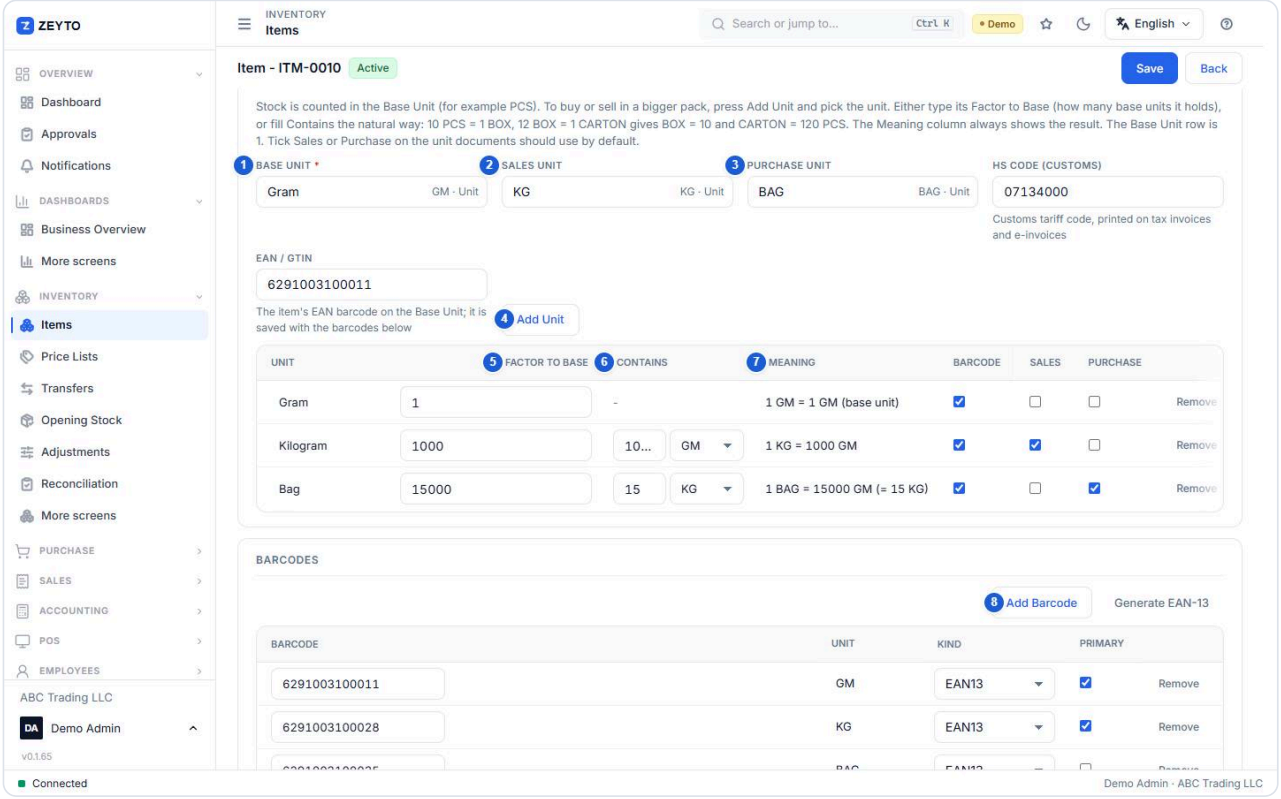
RULE: AN ABSENT LIST MEANS KEEP

When an update to an item does not send the unit table, the barcodes, the alternative numbers or the alternative products at all, they are kept as they are. A list that is sent, even an empty one, replaces what was there. The Item master always sends its lists. An import or another program that sends only the changed fields no longer wipes them.

REAL EXAMPLE

MASOOR DAL 15 KG (ITM-0010) in the demo company ABC Trading LLC

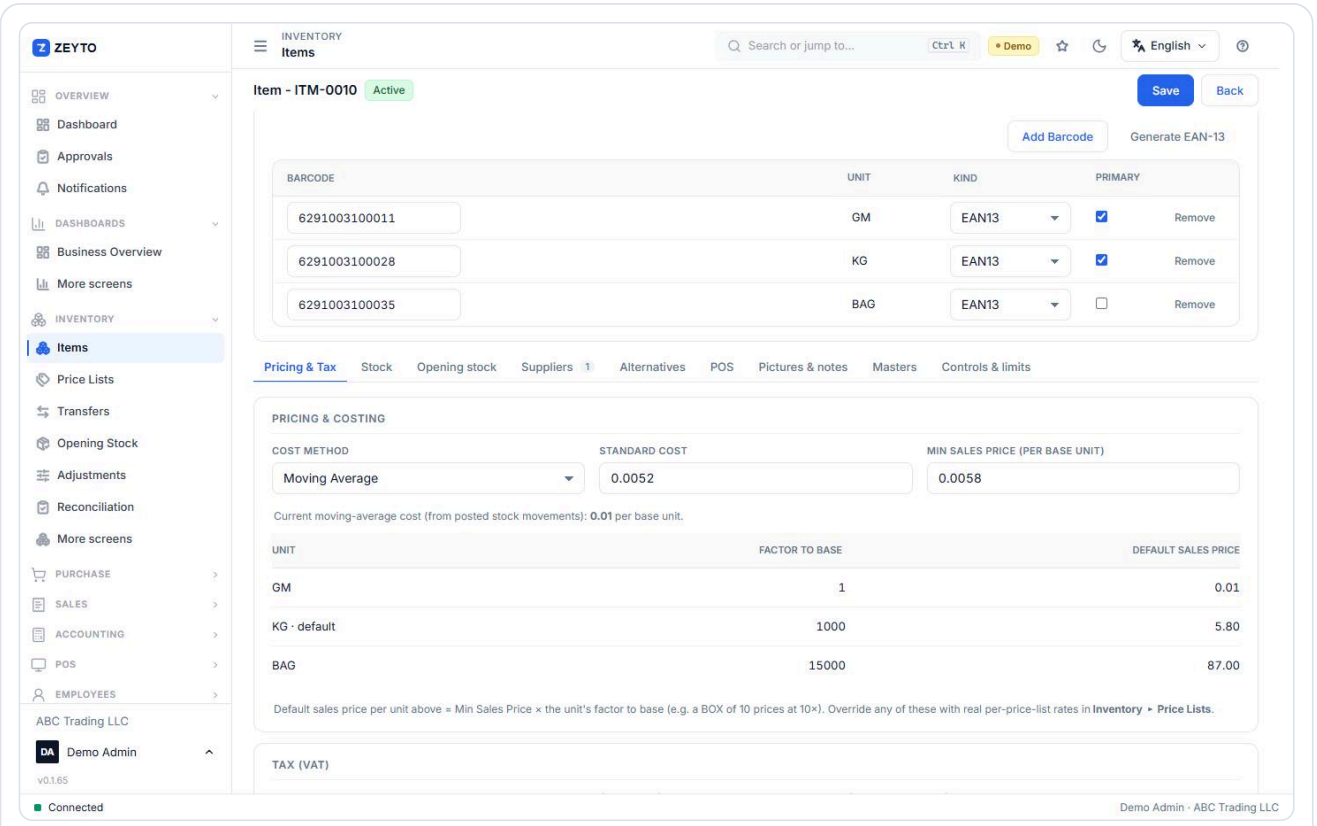
The demo company stocks this item in grams and trades it by the kilogram and by the 15 kg bag. The Units card shows how that is set up.



The Units card of MASOOR DAL 15 KG (ITM-0010). The numbered markers are explained under the picture.

1. BASE UNIT: the unit stock is counted in. Here it is Gram (GM).
2. SALES UNIT: the unit a sales line starts in. Here it is KG.
3. PURCHASE UNIT: the unit a purchase line starts in. Here it is BAG.
4. Add Unit: adds another row to the unit table.
5. FACTOR TO BASE: how many base units one of this unit holds (Kilogram 1000, Bag 15000).
6. CONTAINS: the same conversion typed the natural way, for example 15 KG in a BAG.
7. MEANING: the result in words, for example "1 BAG = 15000 GM (= 15 KG)".
8. Add Barcode: adds a row to the Barcodes card below.

UNIT	FACTOR TO BASE	MEANING	DEFAULT
Gram	1	1 GM = 1 GM (base unit)	None
Kilogram	1,000	1 KG = 1000 GM	Sales
Bag	15,000	1 BAG = 15000 GM (= 15 KG)	Purchase



Barcodes and pricing of the same item. Each unit has its own EAN13 barcode: 6291003100011 for GM, 6291003100028 for KG and 6291003100035 for BAG. Below, the Pricing & Tax tab shows Cost Method Moving Average, Standard Cost 0.0052 and Min Sales Price (per base unit) 0.0058. The screen works out a Default Sales Price for each unit: GM 0.01, KG 5.80 (the default unit) and BAG 87.00.

The quantities and costs follow the factors. The Goods Receipt GRN-FY202600001 in the Purchasing chapter receives 40 bags of this item at 78.00 a bag.

STEP	WORKING	RESULT
Base quantity in	40 BAG x 15,000	600,000 GM
Line value (before VAT)	40 × 78.00	3,120.00
Cost per base unit	78.00 / 15,000	0.0052
Check	600,000 × 0.0052	3,120.00

The stock report agrees. It shows 635,000 GM on hand with a Value of 3,302.00, and 3,302.00 / 635,000 = 0.0052. The report prints rates with 2 decimals, so the same 0.0052 appears as 0.01 in its Rate column and in the Item master line "Current moving-average cost ... 0.01 per base unit".

For prices, the screen takes Min Sales Price times the factor: 0.0058 × 1,000 = 5.80 for KG and 0.0058 × 15,000 = 87.00 for BAG. The price list RETAIL-AED holds its own rates for this item, KG 6.40 and BAG 96.00, and a rate in the list wins. The two list rates agree with each other (15 × 6.40 = 96.00).

> **TIP**
>
> This item shows why the smallest unit you sell should be the Base Unit. With Gram as the base, every Factor to Base is a whole number (1, 1000, 15000), so no fraction of a unit can creep into the stock. Choose the base unit before you post the first movement, because changing it on an item that has stock needs care.

The 0.1.65 release notes also describe an older hosted-demo copy of this item (code 10000, base unit BAG) whose Sales Unit KG and barcode unit GM were not in its unit table. Such an item cannot be saved again until those units are added with their factors.

Not verified in code: how the base quantity is rounded when a factor is not a whole number, for example BAG as the base unit with KG = 0.066667 against 4-decimal stock quantities.

REAL EXAMPLE

Scanning three barcodes of one item (checked in a browser for fix w56)

The test item is also called Masoor Dal. Its Base Unit is PCS, BAG is 25 PCS, and Kilogram is 2 PCS. The Sales Unit is KG. The barcodes are 999900011 = PCS, 999900012 = BAG and 999900013 = KG. The base price is 4.00 a piece. On a Sales Invoice each scan added a line in its own unit.

BARCODE SCANNED	LINE UNIT	RATE ON THE LINE	BASE QUANTITY OUT FOR 1 UNIT
999900011	PCS	4.00	1 PCS
999900012	BAG	100.00 (4 × 25)	25 PCS
999900013	KG	4.00	2 PCS

The KG rate stayed at 4.00 where the factor rule alone would give 8.00 (4.00 × 2). The reason is that saving the item stores its Min Sales Price against the Sales Unit (KG), and a price-list row for the unit itself wins over the factor rule. The Item master and the till read that same figure as a price per base unit. This is a known open decision in the release notes. Until the owner decides, put explicit per-unit rates in a price list for any item whose Sales Unit is not the base unit.

Two places do not follow barcode units yet: the grids of stock transfer, adjustment and opening stock, where you pick the unit by hand, and the field-sales app, which sends lines without a unit, so the item's sales unit is used.

> Source: `docs/operations/w56-item-units-barcode.md`, `docs/operations/release-history.md`, `src/Zeyto.Web/src/screens/ItemMaster.tsx`, `src/Zeyto.Web/src/screens/items.ts`, `src/Zeyto.Web/src/screens/docs/DocForm.tsx`, `src/Zeyto.Edge/Data/Migrations/0003-masters.sql`

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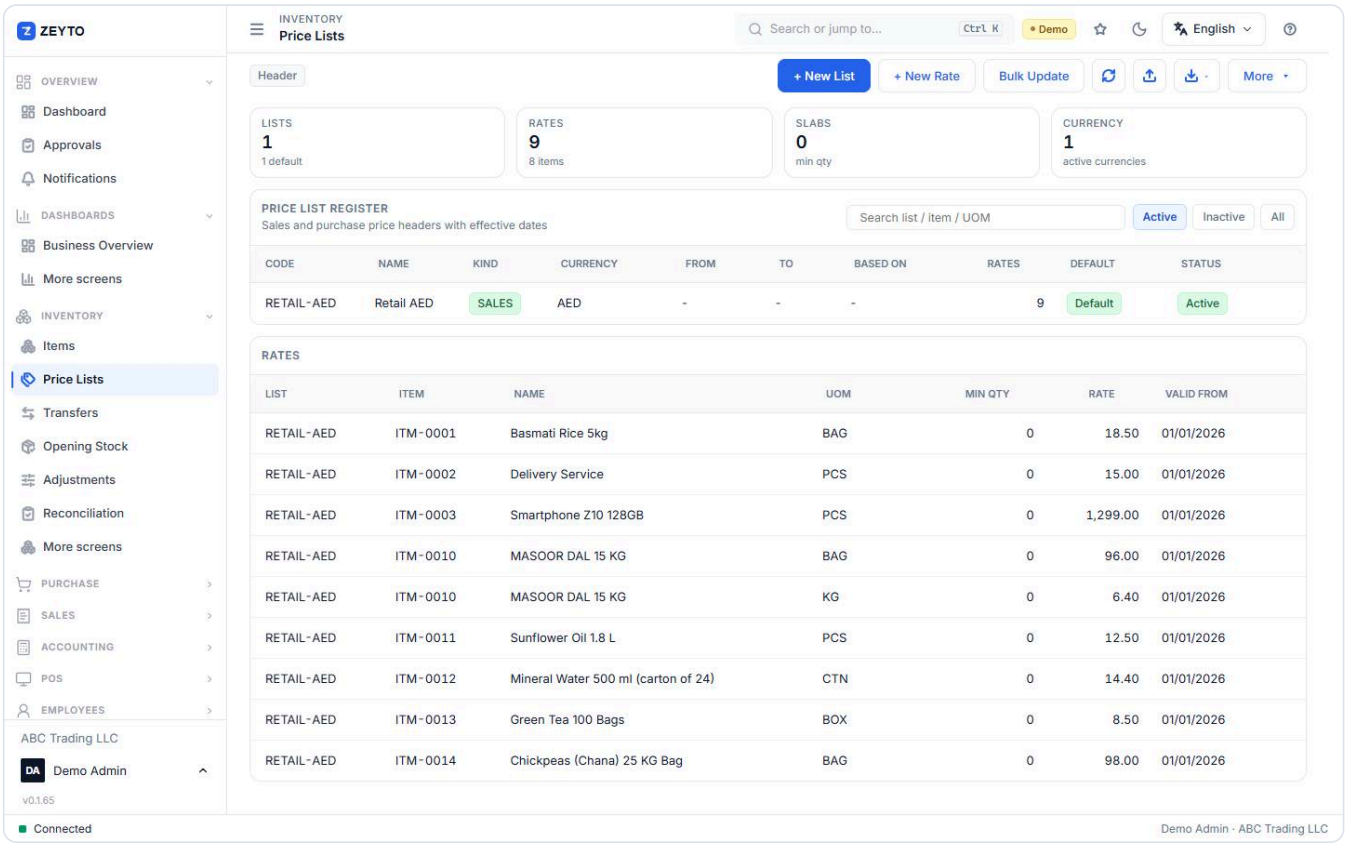
4. Price lists and warehouses

Price lists

A price list is a named set of rates, such as Retail or Wholesale. Open `Inventory ▸ Price Lists`. The buttons `+ New List`, `+ New Rate` and `Bulk Update` open its Header, Rate and Bulk tabs. The register shows each list with Code, Name, Kind, Currency, From, To, Based On, Rates, Default and Status, and the Rates grid under it shows List, Item, Name, UOM, Min Qty, Rate and Valid From.

- A list has a **Kind** (Sales or Purchase), a **Currency**, and a **Default** switch. A document can use only a list of its own kind and its own currency.
- A rate is the price of one item in one unit, from a **Min Qty**. Min Qty 0 is the normal price. A rate with Min Qty 10 gives a quantity break from ten units. The highest Min Qty that the quantity reaches wins.
- Saving an item with a Min Sales Price writes a rate (Min Qty 0, dated today) into the default Sales list.
- **Bulk Update** changes many rates at once from a Source (Item price, Standard cost or Existing rate) with an Adjustment (Percent, Amount or Set rate). It has no preview and no undo.

- There is no Delete. Set a list to inactive.



Price Lists. One Sales list, RETAIL-AED (currency AED, Default, Active), with 9 rates for 8 items. MASOOR DAL 15 KG has two rates, 96.00 for BAG and 6.40 for KG, and none for GM. All rates have Min Qty 0 and Valid From 01/01/2026.

> **WARNING**
> On a purchase document a line with no rate in the Purchase list starts at the item's selling price, not at its cost. Add Purchase list rates for the items you buy, or check every rate by eye.

Not verified in code: the in-app help of Price Lists still says a rate applies only to its own unit and is not converted. Since 0.1.65 the document form multiplies the base price by the unit factor when the list has no rate for the unit (section 3). Whether the server-side default rate does the same was not checked.

Warehouses and racks

A warehouse is any place that holds stock. Open `Inventory ▸ Warehouses & Racks`. Branches are on the same screen.

FIELD	MEANING
Code, Name, Arabic Name	Code is fixed after saving (use Change to correct it).
Type	Main, Field sales, Transit, Damaged or Consignment. Only Transit changes behaviour: a transfer sent through transit offers Transit warehouses only. The other types are labels.
Branch	The branch the warehouse belongs to. Users limited to certain branches see only those warehouses.

FIELD	MEANING
Rack Enabled	Yes if you keep stock on racks (shelves or bins). Saving a rack switches this on.
Allow Negative	Lets this warehouse go below zero even when the company setting is Block (see section 6).
Branch Default	The warehouse a document of that branch uses when none is chosen. One per branch.
Active	An inactive warehouse is not offered on new documents. There is no Delete.

The ledger row of every movement names its warehouse and, when racks are on, its rack. Stock is therefore always "this item, in this warehouse, in this rack".

> Source: `src/Zeyto.Web/src/help/content/inventory-masters.ts`, `src/Zeyto.Edge/Data/Migrations/0003-masters.sql`, `docs/operations/w56-item-units-barcode.md`

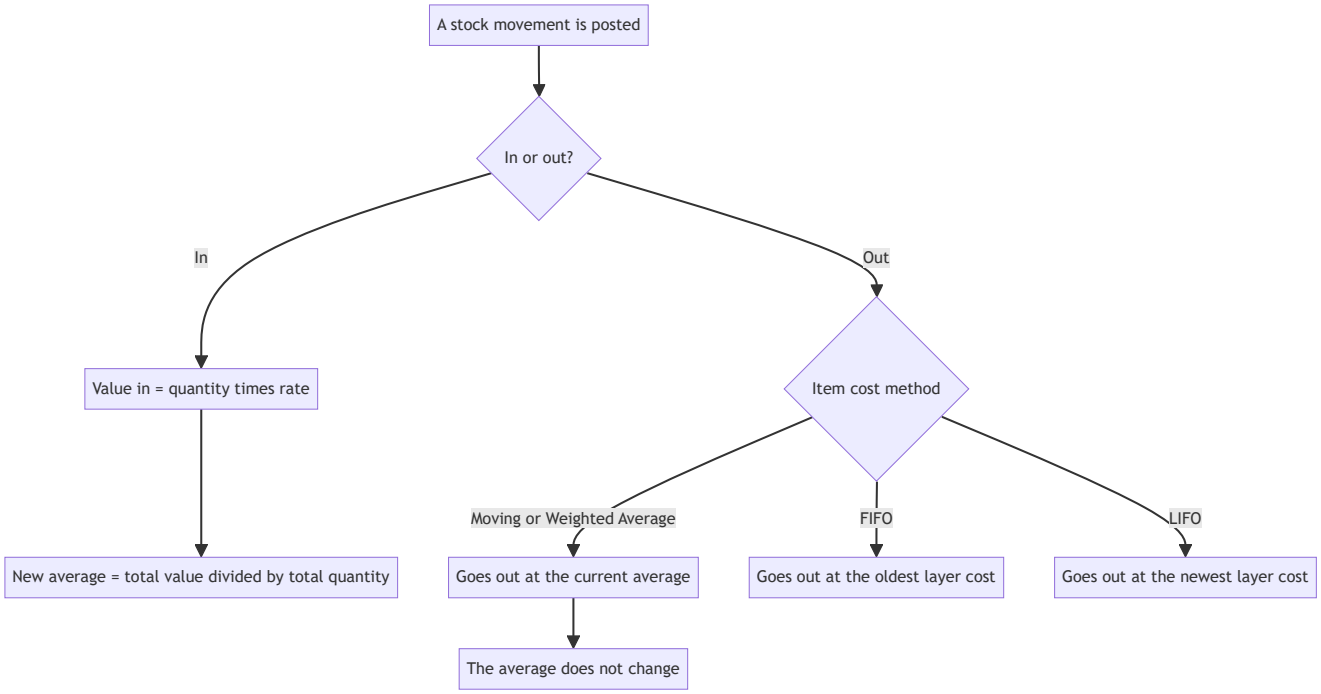
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5. The stock ledger and moving-average cost

Every document that moves stock writes one row per item line into `stock_ledger`. The table is append-only. A row is never edited. When you cancel or amend, new rows that reverse the old ones are added, and the report shows them with the status REVERSAL.

COLUMN	MEANING
In and Out (`qty_in`, `qty_out`)	Quantity in the base unit. One of the two is zero. A value-only row, for example a price difference or a landed charge, has both at zero.
Rate (`rate`)	Cost of one base unit for this row.
Value Δ (`value_delta`)	The money that moved: positive for stock in, negative for stock out.
Balance Qty and Balance Value	The running quantity and value of this item after the row.
MAvg After (`mavg_after`)	The moving-average cost after the row.
Status	POSTED for a normal row, REVERSAL for a row that undoes an earlier one (`is_reversal`).
Warehouse and Rack	Where the stock sits. Every row names a warehouse.

The rule for the cost



How cost is applied. Stock coming in changes the average. Stock going out is valued at the current cost and never moves the average. Weighted Average is costed exactly like Moving Average. FIFO and LIFO keep their layers for each warehouse.

- The method is set per item in **Cost Method** on the Pricing & Tax tab. The company-wide **Default Cost Method** in `Settings ▸ Costing` only decides what a new item starts on. Changing the policy never rewrites posted rows.
- The value of every row is rounded to 4 decimals, and so is the average.
- A transfer moves stock at the average, so it makes no profit or loss.
- **Standard Cost** on the item is a reference figure. Real stock value comes from real purchases. The standard cost is used only as a starting rate where no average exists yet (for example on a stock adjustment) and for the below-cost warning on sales.

REAL EXAMPLE

Two purchases, then a sale (golden test GS_COST_01)

You buy 10 units at 10.00, then 10 units at 14.00. After the second purchase you hold 20 units worth 240.00, so the average is 240.00 / 20 = 12.00. You sell 5 units. They leave at 12.00, so the cost of the sale is 60.00.

STEP	IN	OUT	RATE	VALUE Δ	BALANCE QTY	BALANCE VALUE	MAVG AFTER
Purchase 1	10		10.00	100.00	10	100.00	10.0000
Purchase 2	10		14.00	140.00	20	240.00	12.0000
Sale		5	12.00	-60.00	15	180.00	12.0000

The cost legs of the sale in the accounts are:

SALES INVOICE, COST OF THE GOODS	DR	CR
5000 Cost of Goods Sold	60.00	
1300 Inventory		60.00
Total	**60.00**	**60.00**

The sale's revenue, VAT and receivable lines are not shown here. They are covered in the Sales chapter.

REAL EXAMPLE

Opening stock, then a purchase at a new price (golden test for Opening Stock)

On go-live day you post an Opening Stock voucher for 10 units at 12.50. It posts Inventory 125.00 against the opening balance account. Later you buy 10 units at 14.50, which is 145.00.

OPENING STOCK OST-	DR	CR
1300 Inventory	125.00	
3900 Opening Balance Suspense		125.00
Total	**125.00**	**125.00**

After the purchase you hold 20 units. Their value is 125.00 + 145.00 = 270.00, so the average is 270.00 / 20 = 13.50.

ILLUSTRATIVE FIGURES

Carry on from the 15 units worth 180.00, and watch the 4-decimal rounding

These steps continue the first example. They follow the same rule, but the figures are made up.

STEP	WORKING	BALANCE QTY	BALANCE VALUE	MAVG AFTER
Start	from the first example	15	180.00	12.0000
Buy 5 at 20.00	180.00 + 100.00 = 280.00; 280.00 / 20	20	280.00	14.0000
Sell 8	8 × 14.00 = 112.00 out; 280.00 - 112.00	12	168.00	14.0000
Buy 6 at 10.00	168.00 + 60.00 = 228.00; 228.00 / 18	18	228.00	12.6667

The sale did not change the average. Only the two purchases did. The last average, 12.6667, is the value 12.666666... rounded to 4 decimals.

TIP

When a supplier's invoice differs from the receipt, a value-only row is added and the average moves, as chapter "Purchasing" shows. If you see an average change on a day with no receipt, open **Stock Ledger / Movement** and look for a row with In and Out both empty.

Not verified in code: whether the moving average is held once per item for the whole company or separately per warehouse. FIFO and LIFO layers are kept per warehouse according to the Costing help page. For an item with stock in two warehouses, check the MAvg Cost column of the Stock Balance & Valuation report in both.

Source: `src/Zeyto.Edge/Domain/CostingEngine.cs`, `src/Zeyto.Edge/Data/Migrations/0005-ledgers.sql`, `src/Zeyto.Edge/Data/Migrations/0020-cost-methods.sql`, `src/Zeyto.Web/src/help/content/settings-finance.ts`, `tests/Zeyto.Tests/GoldenPostingTests.cs`, `tests/Zeyto.Tests/GoldenOpeningStockVoucherTests.cs`

6. Moving stock: opening, transfer, adjustment, count and negative stock

Five vouchers change stock without a sale or a purchase. They all live under `Inventory` and all follow the same four document states.

VOUCHER	MENU	NUMBER	STOCK	ACCOUNTS
Opening Stock	`Inventory ▸ Opening Stock`	OST-	In at the Rate you type	Dr 1300 Inventory, Cr 3900 Opening Balance Suspense. One voucher per warehouse.
Stock Transfer	`Inventory ▸ Transfers`	STN-	Out of one warehouse, in to another, at the current cost	None. No VAT.

VOUCHER	MENU	NUMBER	STOCK	ACCOUNTS
Stock Adjustment	`Inventory ▸ Adjustments`	ADJ-	Increase, Decrease, Revalue up or Revalue down	Dr or Cr 1300 against an offset account (default 5100 Inventory Adjustment & Write-off)
Stock Reconciliation	`Inventory ▸ Reconciliation`	ADJ-	Only the differences between count and system	The same as an adjustment
Production Entry	`Inventory ▸ Production Entry`	MFG-	Components out, finished item in	Nets to zero on 1300. Not covered here.

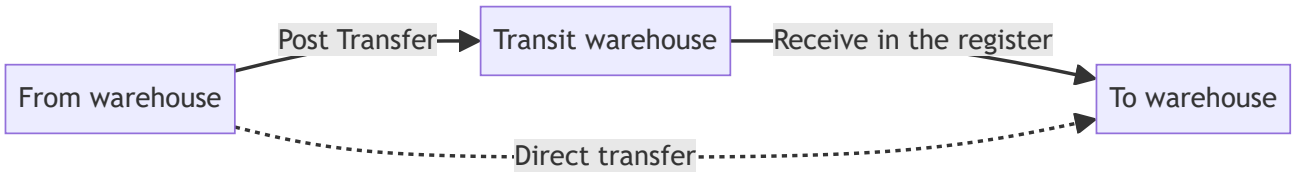
Not verified in code: the exact number prefix of a Production Entry. The stock test matrix names its document type MFG.

On these screens the status pill of a finished voucher reads **Posted**. Numbers carry the fiscal year, for example STN-FY202600001 and ADJ-FY202600001.

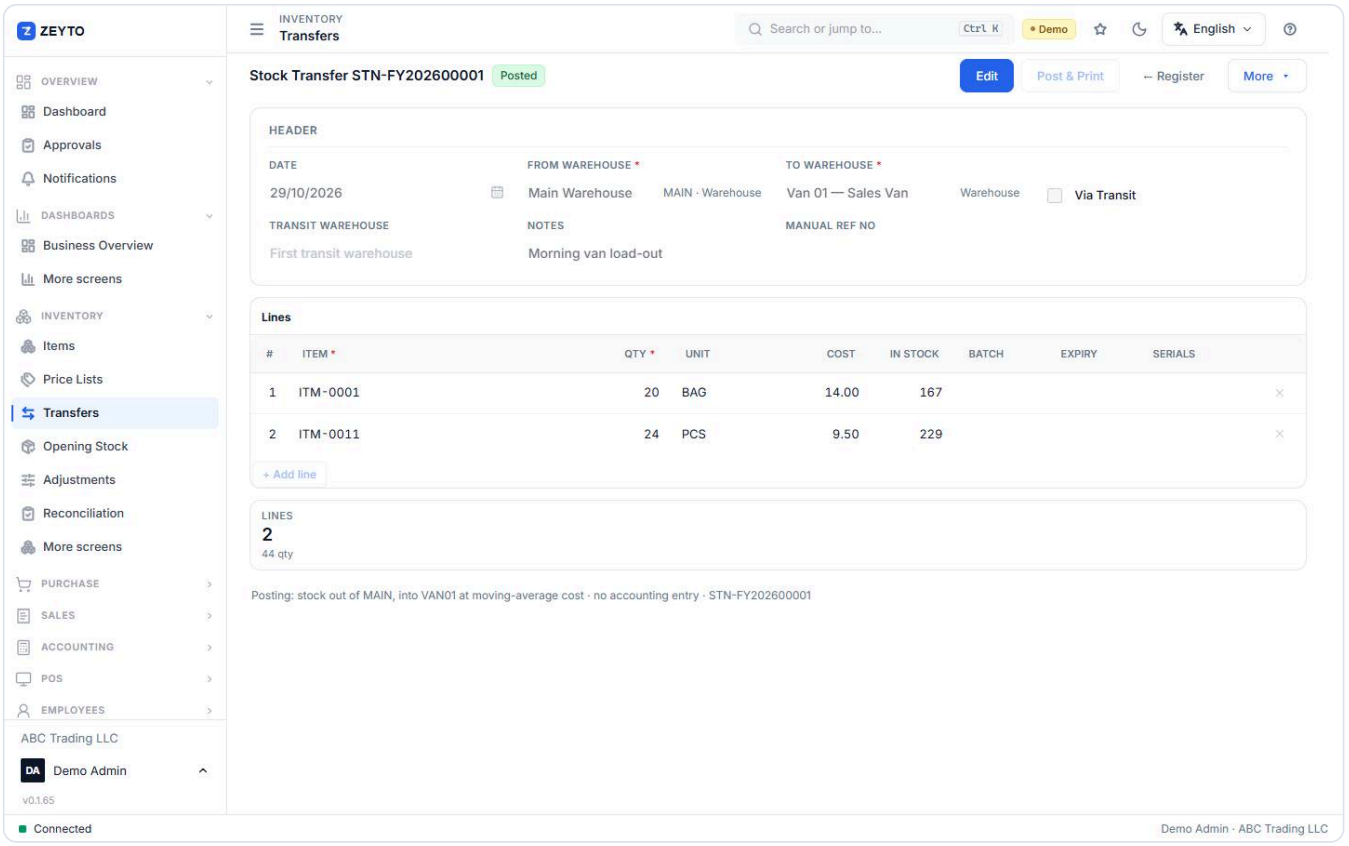
Opening stock

Use it once per warehouse, on go-live day. On the form pick the **Fiscal Year**, the **Date** and the **Warehouse**. In the lines pick the Item, then type the **Qty**, check the **Unit**, and type the **Rate** (the cost of one unit). Press `Post Opening Stock`. Each warehouse has only one opening voucher, and each item appears once in it. Choosing a warehouse that already has one opens it for editing. To change a posted voucher press `Edit` and then `Save Changes`. The old document is cancelled and a corrected one gets the next OST- number. The opening value is never an expense.

Transfers



Direct and through transit. A direct transfer moves the stock in one step. Through transit, the stock waits in a warehouse of type Transit until someone presses Receive on the transfer's row. The Receive step is its own STN document.



Stock Transfer STN-FY202600001 (Posted). From Warehouse Main Warehouse to Van 01 - Sales Van, with the Via Transit tick off and the Transit Warehouse box showing "First transit warehouse". The lines show Item, Qty, Unit, Cost and In Stock: 20 BAG of ITM-0001 at cost 14.00 and 24 PCS of ITM-0011 at 9.50. The toolbar has Edit, Post & Print, Register and More. The footnote says "stock out of MAIN, into VAN01 at moving-average cost, no accounting entry".

REAL EXAMPLE

Move 2 of 5 units through transit (golden test GS_STN_01)

The main warehouse holds 5 units at 10.00. You transfer 2 through transit and later receive them in a field-sales warehouse.

STEP	DOCUMENT	MAIN	TRANSIT	FIELD SALES
Before		5 (50.00)	0	0
Post Transfer	STN-00001	3 (30.00)	2 (20.00)	0
Receive	STN-00002	3 (30.00)	0	2 (20.00)

The two documents write no ledger entries at all, and no VAT. The stock value of the item stays 50.00 in total.

Tutorial 2: send stock through transit and receive it

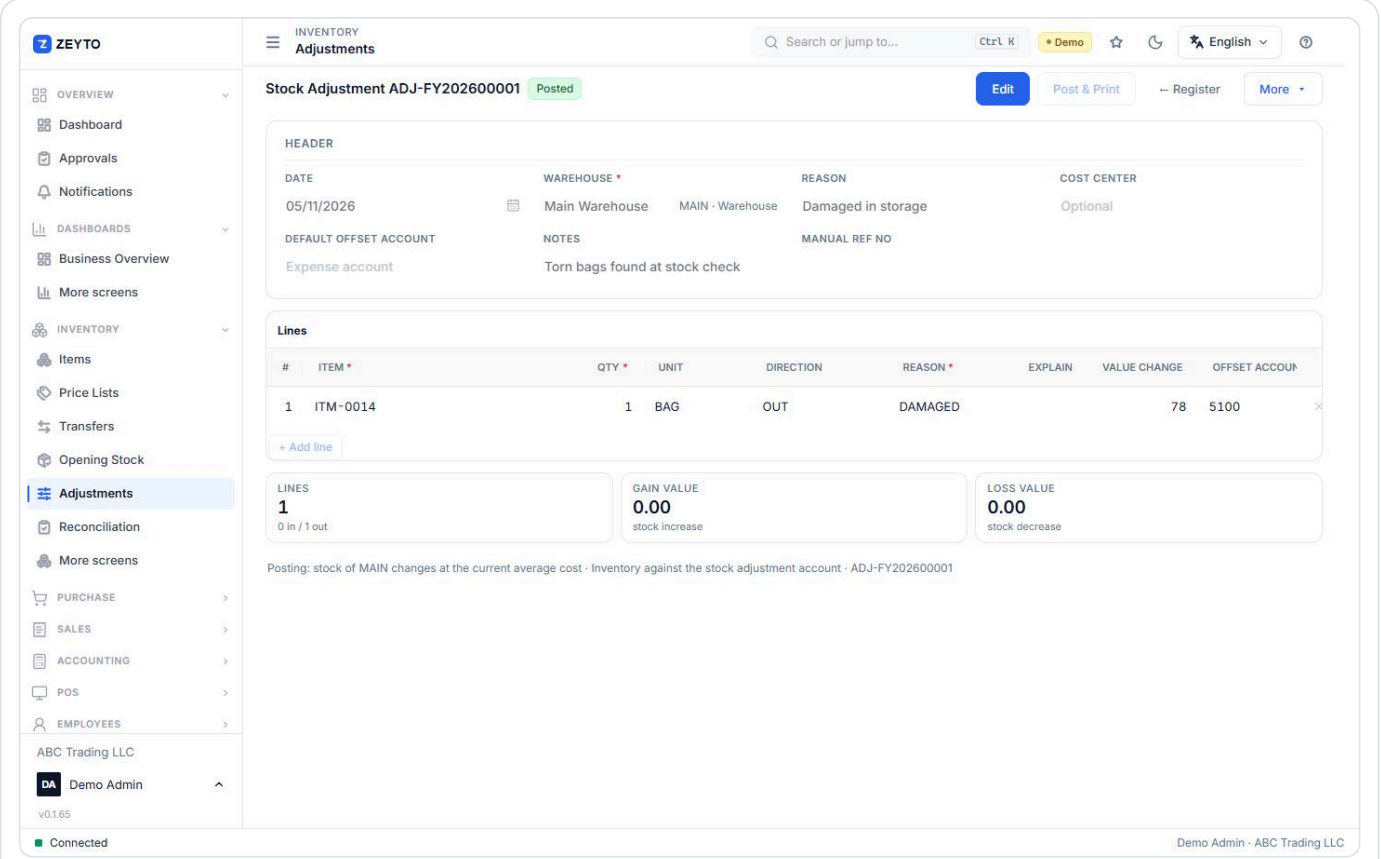
1. **Open the form.** Go to `Inventory ▸ Transfers` and press `+ New`.
2. **Pick the warehouses.** Choose the **From Warehouse** and the **To Warehouse**. They must differ.

3. **Tick Via Transit.** Pick a **Transit Warehouse**, or leave it empty to use your first Transit warehouse. Only warehouses of type Transit are offered.
4. **Add the lines.** In the grid type the Item, press `Tab`, type the Qty, and press `Enter`. The grid shows what is In Stock in the From warehouse. The Unit starts as the base unit.
5. **Post.** Press `Post Transfer` (`Ctrl` + `Enter`). The stock leaves the source and waits in transit. The register shows the Flow as In transit.
6. **Receive.** When the goods arrive, find the transfer in `Inventory ▸ Transfers` and press `Receive` on its row. The stock moves into the To Warehouse.

> **WARNING**
>
> Receive works only while the transfer is SUBMITTED, so amending a transfer in transit stops Receive from working for it. Cancel Document does not undo a Receive entry. Do not cancel a transfer that shows RECEIVED.

Adjustments and stock counts

An adjustment line has a **Direction**: Increase, Decrease, Revalue up or Revalue down. Every line needs a **Reason** (Damaged, Expired, Lost or stolen, Count shortage, Count surplus, Found stock, Cost revaluation or Other). Increase and Decrease are valued at the item's current average cost, so a count can never move the average. Revalue lines take a **Value Change** and leave the quantity alone. The **Default Offset Account** takes the other side of every line. Empty means account 5100.



Stock Adjustment ADJ-FY202600001 (Posted). Warehouse Main Warehouse, Reason "Damaged in storage". The one line is ITM-0014, Qty 1, Unit BAG, Direction OUT, Reason DAMAGED, Value Change 78 and Offset Account 5100. The footnote says stock of MAIN changes at the current average cost and Inventory is posted against the stock adjustment account. The Gain Value and Loss Value tiles read 0.00 on this posted document.

REAL EXAMPLE

A write-down of 20.00 (golden test GS_ADJ_01)

STOCK ADJUSTMENT ADJ-	DR	CR
Offset expense account (6850 in the test)	20.00	
1300 Inventory		20.00
Total	**20.00**	**20.00**

This is a Decrease line, so the stock ledger row has a negative Value Δ of 20.00. Unless you pick another account, the debit goes to 5100 Inventory Adjustment & Write-off.

ILLUSTRATIVE FIGURES

A stock take finds 2 units missing

Zeyto expects 15 units in the main warehouse (System Qty). You count 13 and type that in **Counted Qty**. The difference is minus 2. The item's MAvg is 12.00, so the Value Effect is 2 × 12.00 = 24.00, shown as a shortage. The row's reason starts as Count shortage.

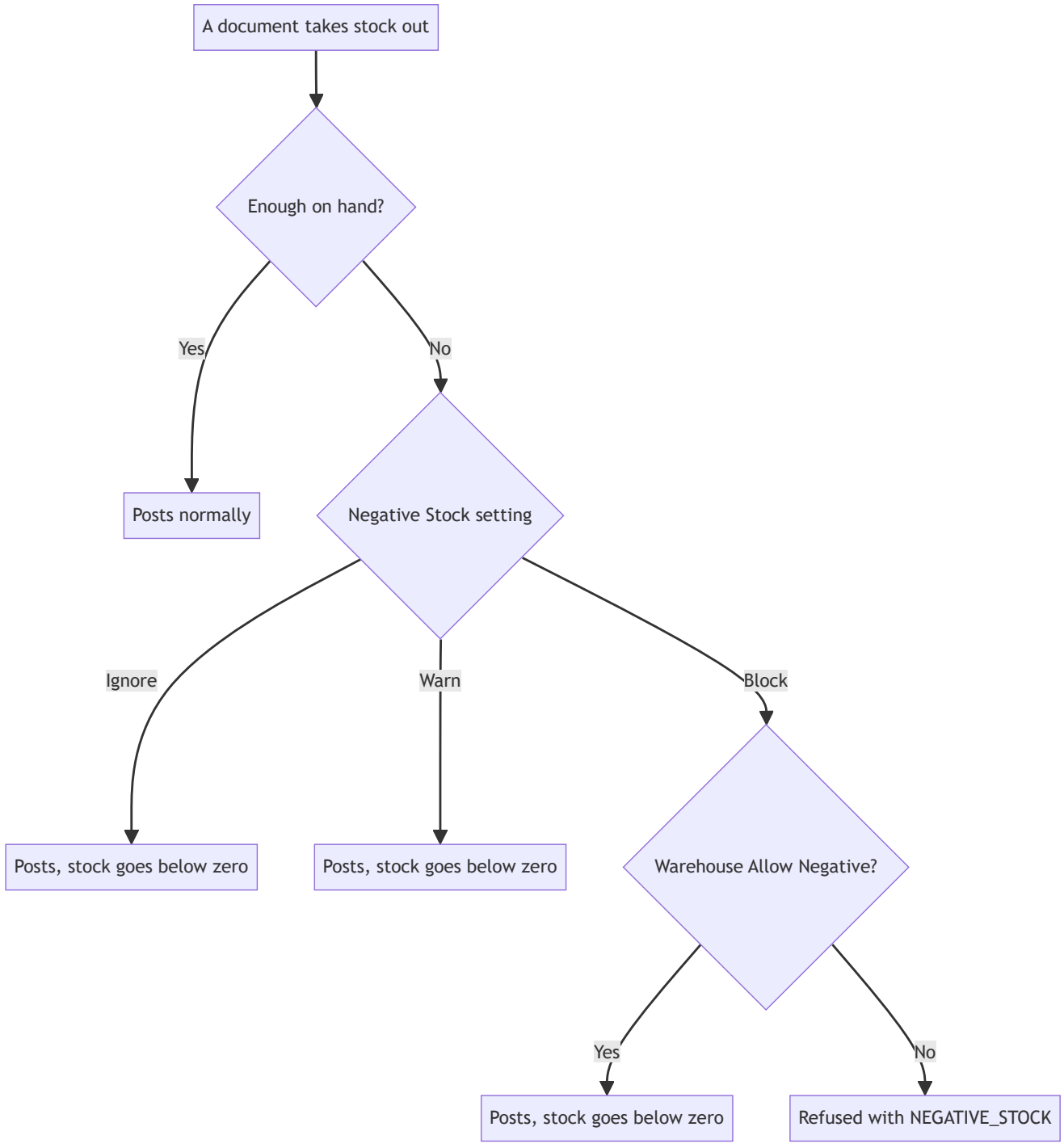
POST DIFFERENCES, ADJ- DOCUMENT	DR	CR
5100 Inventory Adjustment & Write-off	24.00	
1300 Inventory		24.00
Total	**24.00**	**24.00**

Tutorial 3: count a warehouse and post the differences

1. **Open the screen.** Go to `Inventory ▸ Reconciliation` and press `+ New Count`.
2. **Pick the Warehouse.** The grid lists every item that has stock there, with the System Qty.
3. **Type the Counted Qty.** Type 0 for an item that is gone. An empty box means not counted, and the item is left alone.
4. **Check the tiles.** Differences is how many rows will be posted. Excess and Shortage show their value at MAvg.
5. **Fix the reasons.** Each row that differs needs a Reason. Change Count shortage to Damaged or Lost or stolen when you know the cause. Items with batches, expiry or serial numbers need those details on the row.
6. **Post.** Press `Post Differences`. There is no draft. Zeyto compares with the stock it holds at that moment, so if something sold while you counted, the posted difference is smaller than on screen.

Negative stock

The company policy lives in `Settings ▸ Costing` in the **Costing Policy** card as **Negative Stock**, with three choices. It applies to a sale, a delivery, a purchase return, a transfer and a stock adjustment decrease.



The negative-stock decision. Only the Block setting can stop a document, and a warehouse with Allow Negative set to Yes overrides it. A new install starts on Warn, so stock never blocks a sale until you choose Block. With Warn you can also tick Ask for confirmation on a short sale.

REAL EXAMPLE

Sell 6 with 5 on hand (golden tests GS_NEG_01 and GS_NEG_02)

You buy 5 units at 10.00. You then invoice 6 units at 18.50 for cash. The net is 6 × 18.50 = 111.00, the VAT is 5.55, and the customer pays 116.55.

NEGATIVE STOCK SETTING	WHAT HAPPENS TO THE INVOICE	ON HAND AFTERWARDS
Block (warehouse Allow Negative is No)	Refused with `NEGATIVE_STOCK`. The document stays DRAFT. No ledger, stock or VAT row is written.	5
Ignore	Posts as normal.	-1

If you sell goods before you have bought them on purpose, use **Selling Before Buying** in the same Costing screen. The missing quantity is costed with a temporary cost, and a cost true-up document corrects the cost of sales when the purchase is entered. The sale shows as waiting in **Sales waiting for a purchase**.

> Source: `src/Zeyto.Web/src/help/content/inventory-stock.ts`, `src/Zeyto.Web/src/help/content/settings-finance.ts`, `src/Zeyto.Edge/Domain/PostingEngine.cs`, `src/Zeyto.Edge/Domain/GlMapper.cs`, `tests/Zeyto.Tests/GoldenPostingTests.cs`, `docs/operations/voucher-matrix-stock-2026-11-04.md`

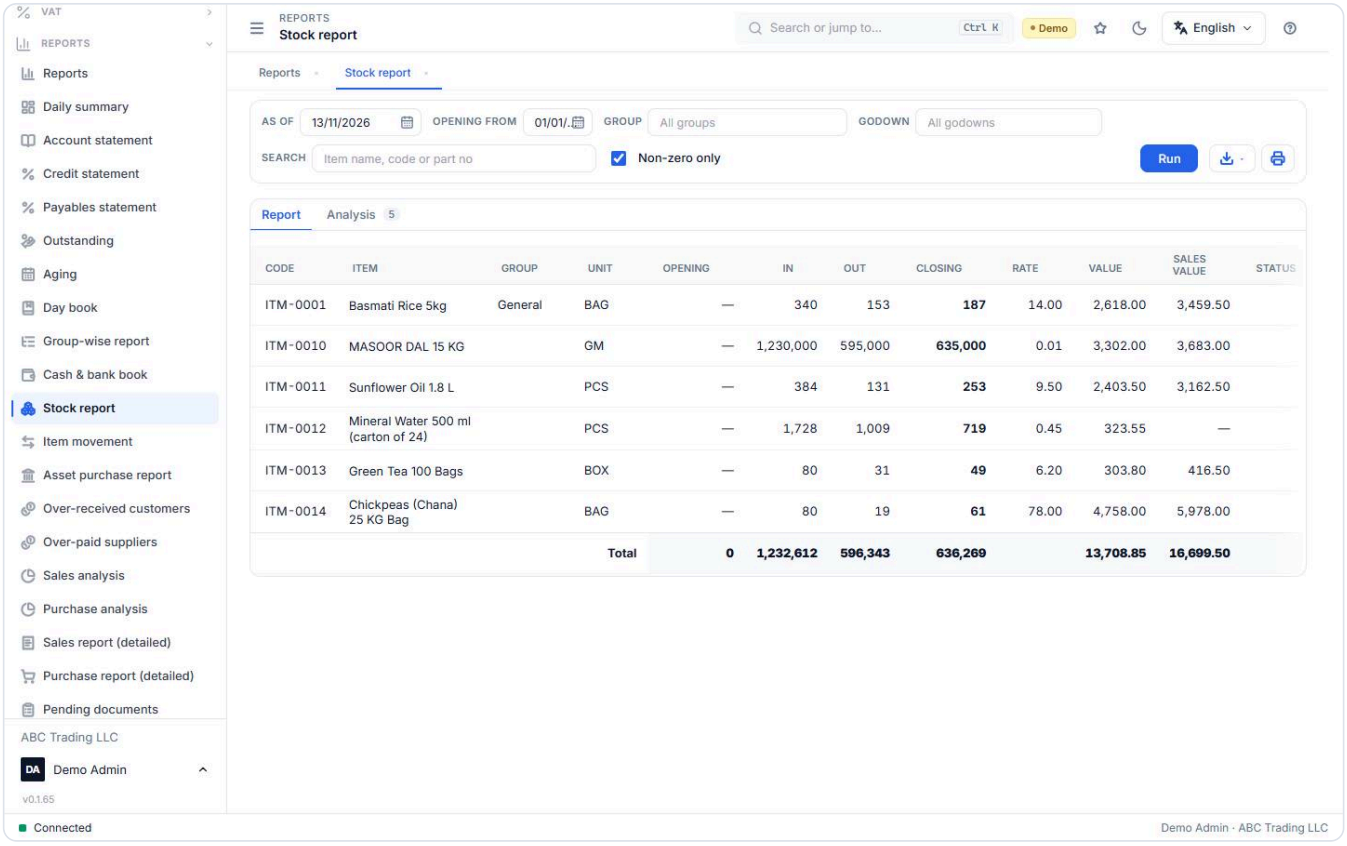
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7. Stock reports and what they answer

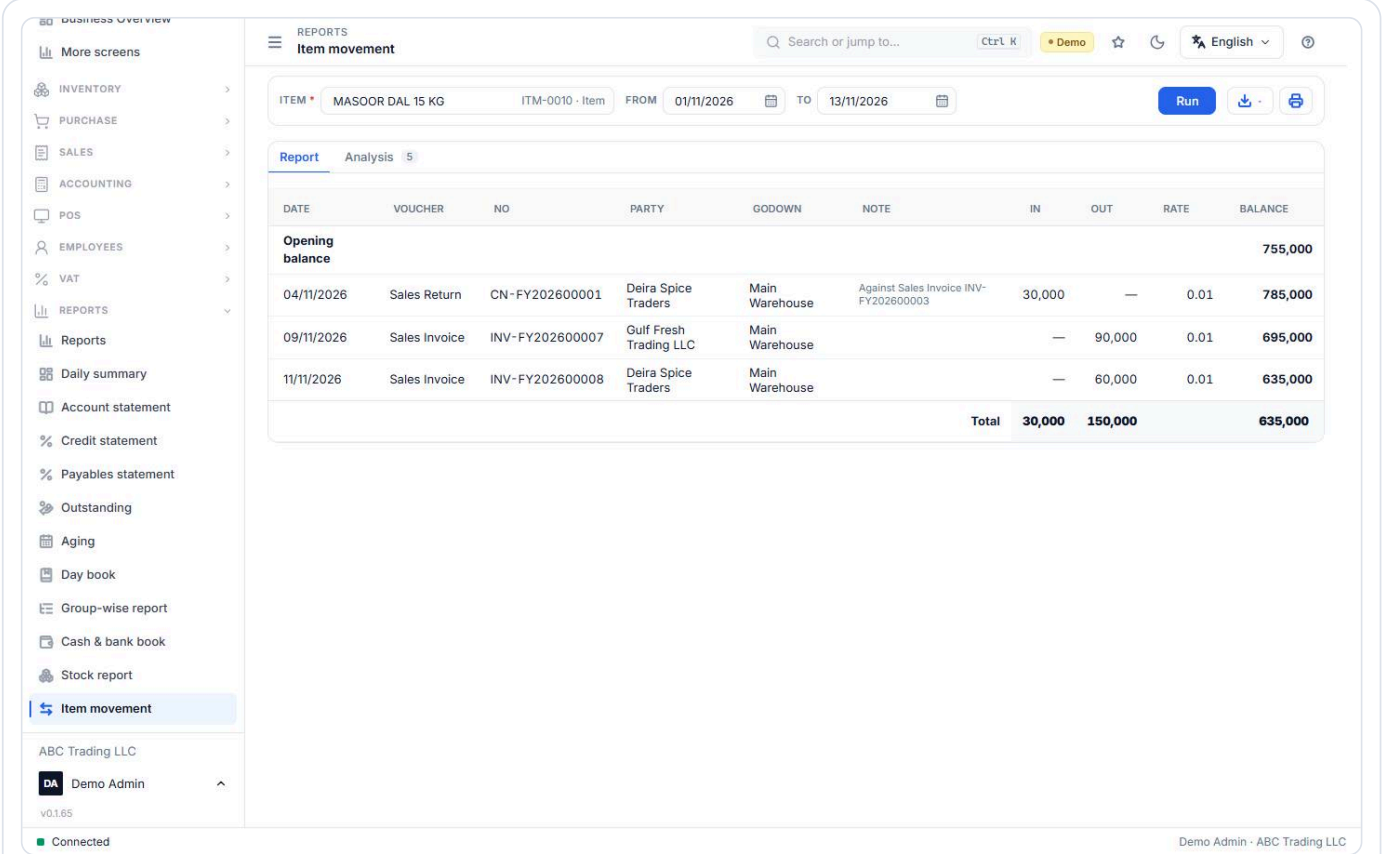
Every report below reads `stock_ledger` (and the accounts for money). Open them from `Reports`. The Inventory Dashboard shows the main figures.

REPORT	QUESTION IT ANSWERS	MAIN COLUMNS
Stock Balance & Valuation	What do I hold and what is it worth now	Item, Description, Warehouse, On Hand, MAvg Cost, Value (AED)
Stock Balance - Period Movement	What came in and went out between two dates	Opening Qty, Inward, Outward, Closing Qty, Closing Value
Stock Ledger / Movement	Every movement of an item, in order	In, Out, Rate, Value Δ, Balance Qty, Balance Value, MAvg After, Status (POSTED or REVERSAL)
Stock report (Reports sidebar)	Quantity, cost and value of every item at a date	Code, Item, Group, Unit, Opening, In, Out, Closing, Rate, Value, Sales Value, Status. Filters: As of, Opening From, Group, Godown, Search, Non-zero only
Item movement (Reports sidebar)	The stock card of one item	Date, Voucher, No, Party, Godown, Note, In, Out, Rate, Balance
Stock Status	Which items are below minimum, above maximum or negative	Min, Max and Negative flags
Reorder Report	What should I buy	Shows the preferred supplier name and price from the item's Suppliers tab

REPORT	QUESTION IT ANSWERS	MAIN COLUMNS
Slow / Fast Movers	What sells and what sits	Compares how fast items move. Also used to spot idle stock (see below)
Batch Expiry	Which batches expire soon	Lists items that track batches and expiry dates
Serial / IMEI Register	Where each serial number is	Lists items that track serial or IMEI numbers
Transfer, Adjustment, Opening Stock and Reconciliation registers	The vouchers of each kind	Number, date, warehouse, value



Stock report. One row per stock item as of 13/11/2026, with Code, Item, Group, Unit, Opening, In, Out, Closing, Rate, Value, Sales Value and Status. Each item is shown in its own base unit: BAG for rice and chickpeas, PCS for oil and water, BOX for tea and GM for MASOOR DAL 15 KG (635,000 closing, Value 3,302.00, Rate 0.01). The Total row adds the Value column to 13,708.85.



Item movement for MASOOR DAL 15 KG. 01/11/2026 to 13/11/2026. The Opening balance is 755,000 GM. A Sales Return CN-FY202600001 brings 30,000 in. Sales Invoices INV-FY202600007 and INV-FY202600008 take 90,000 and 60,000 out. The Balance column ends at 635,000, the same figure as the stock report. The Godown column is the warehouse (Main Warehouse).

The demo company's Reports sidebar uses the short names Stock report and Item movement for the two screens shown above. The report catalogue help uses the longer names in the first rows of the table. The reports use the word Godown for warehouse.

RULE: THE STOCK VALUE EQUALS THE INVENTORY ACCOUNT

The total Value of the Stock Balance & Valuation report should equal the balance of account 1300 Inventory in the Trial Balance. A difference usually means a manual journal was posted straight to 1300. Start at the Stock Ledger / Movement report for the item and compare it with the General Ledger of account 1300.

THERE IS NO STOCK AGEING REPORT

The product has no report called stock ageing. To find old or idle stock use **Slow / Fast Movers**, and the Inventory Health figures, where stock with no movement for 180 days or more counts as dead stock and 90 to 179 days as slow stock.

Not verified in code: the menu path of Inventory Health. Its day limits come from the product's own help text.

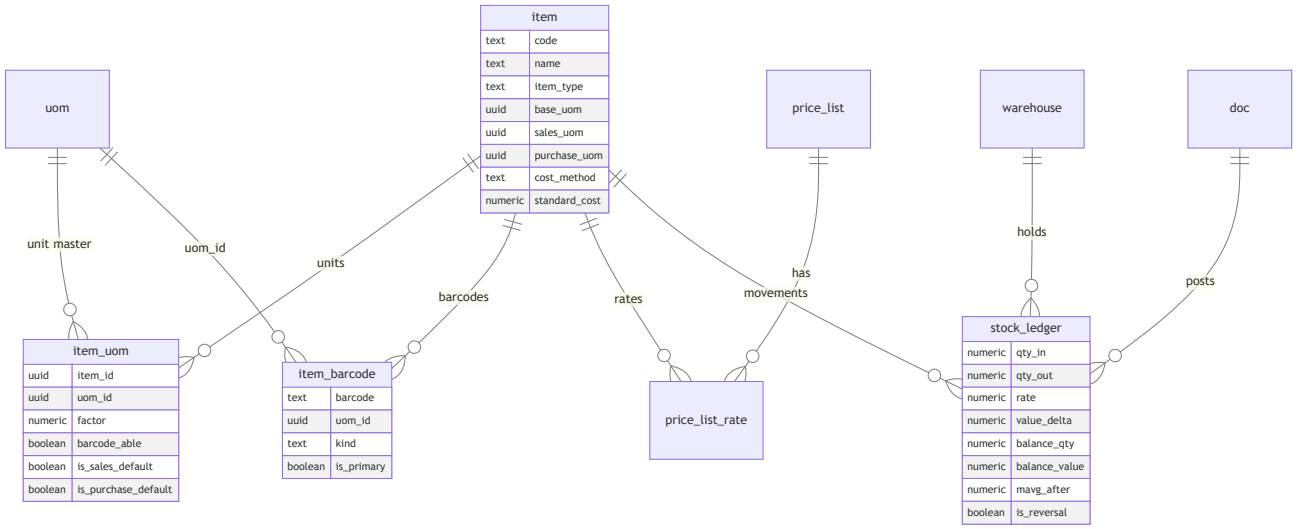
Items that carry the Min and Max values on the Stock tab appear in Stock Status. The Costing screen has a **Valuation Report** button that opens the Stock Balance & Valuation report directly.

KNOWN OPEN ITEMS IN THE STOCK TEST MATRIX

The product's stock test matrix lists defects still open on 04/11/2026. The Emeron Stock report counts an Opening Stock voucher dated inside the period as In, while Stock Balance - Period Movement counts it as Opening (D11, needs an owner decision). Four print layouts are thin: a Production Entry cannot be printed (D12), a stock take prints with the title "STOCK ADJUSTMENT" (D13), Opening Stock and Adjustment print only journal lines without item names (D14), and a Transfer prints only the source warehouse (D15).

Source: `src/Zeyto.Web/src/help/content/reports-catalog-inventory-pos.ts`, `src/Zeyto.Web/src/help/content/settings-finance.ts`, `docs/operations/voucher-matrix-stock-2026-11-04.md`, `src/Zeyto.Edge/Data/Migrations/0005-ledgers.sql`

8. The data behind it, common mistakes and Check yourself



Item and stock tables. `item_uom` is unique on item and unit. `item_barcode.barcode` is unique across the whole database, so one barcode can never point at two items. `stock_ledger` is append-only and carries the document, line, warehouse and rack of every row. Item groups, brands and categories are separate masters (`item_group`, `item_brand`, `item_category`) that the item points to.

Common mistakes

SYMPTOM	CAUSE	FIX
Save refuses with "Add 'KG' to the item's unit table with its conversion to the base unit first"	The Sales Unit, Purchase Unit or a barcode's unit is not in the item's unit table.	Press Add Unit, pick the unit, fill Contains or Factor to Base, then save.
A sales line does not offer a unit you set as Sales Unit	The unit is not in the unit table (typical for items made before 0.1.65).	Add the unit to the unit table with its factor.
Scanning a barcode adds the wrong unit	The barcode's Unit column is empty or points to another unit.	Open the Barcodes card and set the Unit for that barcode.

SYMPTOM	CAUSE	FIX
A BAG line is priced like one piece	The price list has a rate for the unit itself that overrides the factor, or a rate was stored against the Sales Unit.	Put an explicit rate for each unit in a Sales price list.
Items, units or barcodes disappeared after an import	Before 0.1.65 an update that left a list out emptied it.	Soft-deleted rows still hold the factor and barcode. Add the unit or barcode again.
A purchase line starts at the selling price	The Purchase price list has no rate for the item.	Add Purchase list rates, or type the cost on the line.
Sale is refused with NEGATIVE_STOCK	Negative Stock is Block and the warehouse does not allow negative stock.	Receive the goods first, or choose Warn in Settings ▸ Costing, or set Allow Negative on the warehouse.
A transfer through transit cannot be received	It was amended or cancelled after posting, so it is no longer SUBMITTED.	Make a new transfer. Never cancel a transfer that shows RECEIVED.
Stock value differs from account 1300	A manual journal was posted straight to 1300.	Compare the Stock Ledger / Movement report with the General Ledger of account 1300 and reverse the manual entry.
Opening Stock asks to edit a voucher instead of a new one	Each warehouse has one opening voucher.	Press Edit on the existing voucher and add the item there.

Check yourself

1. Open an item you sell by the bag. In the unit grid, Factor to Base for BAG times 1 should equal the number of base units the Meaning column shows.
2. Scan the barcode of the bag unit on a Sales Invoice. The new line should show BAG, not the base unit.
3. Post a Goods Receipt of 10 units, then open Stock Ledger / Movement for the item. The new row should show In 10, the rate, and a MAvg After equal to Balance Value divided by Balance Qty.
4. Sell 1 unit. The row should show Out 1 at the same MAvg After as the row before it. A sale never changes the average.
5. Post a transfer through transit. Stock Balance & Valuation should show the quantity in the Transit warehouse until you press Receive, and the total value of the item should not change.
6. Post a stock take difference. Account 5100 (or your chosen offset account) should change by the Value Effect shown on the grid, and the ADJ- document should appear in the Adjustment register.
7. Compare the total of Stock Balance & Valuation with the balance of account 1300 in the Trial Balance.
8. Set Negative Stock to Block on a test company and try to sell more than you hold. The refusal should name the line and nothing should post.

> Source: `src/Zeyto.Edge/Data/Migrations/0003-masters.sql`, `src/Zeyto.Edge/Data/Migrations/0005-ledgers.sql`, `docs/operations/w56-item-units-barcode.md`, `src/Zeyto.Web/src/help/content/inventory-stock.ts`

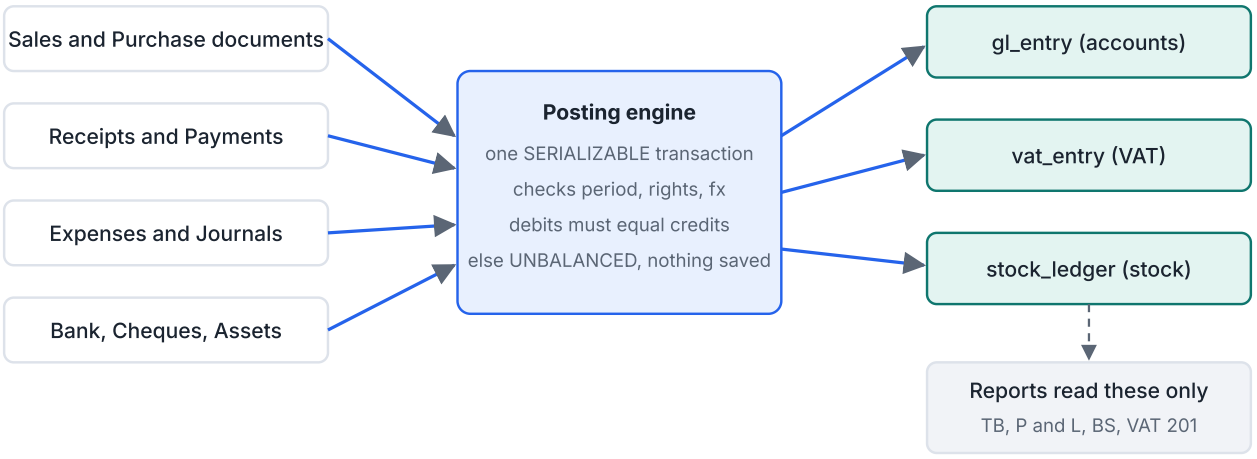
ACCOUNTING AND TAX

Accounting: the ledger, vouchers, banking and the books

After this chapter you can read any journal Zeyto posts, enter receipts, payments, expenses and journals correctly, follow a cheque from registration to the bank, run depreciation, close a year, and prove that the trial balance, profit and loss and balance sheet agree with each other.

1. The big picture: every document becomes balanced journal lines

Zeyto has one rule for accounting. Every document that moves money or stock goes through a single door, the posting engine. The engine turns the document into rows in three ledgers and nothing else is allowed to write to them. You never type into the ledger directly. You enter a document (an invoice, a receipt, an expense, a journal) and the engine writes the accounting.



One door into the books. The three ledgers are append-only. Reports only read them, so a number on a report can always be traced to a document.

What happens inside one posting

When you press Submit or Save & Post, the engine runs the following in one database transaction. If any step fails, nothing is saved and the document stays a draft.

1. **Load and validate.** The engine checks that the accounting period is open, that you have the right to post, the stock policy and the exchange rate.
2. **Number the document.** A number is taken from the document's numbering series (for example INV-00001 or RCT-00001). Cancelled numbers are kept, so gaps are allowed.
3. **Convert to base currency once.** A foreign-currency document is converted to AED a single time at its exchange rate.
4. **Write the ledgers.** Costing and the stock ledger first, then the general ledger through the posting map, then the VAT ledger.
5. **Check the balance.** The sum of debits must equal the sum of credits. If not, the engine

throws `UNBALANCED`. It never rounds a figure to make it fit.

6 **Mark the document SUBMITTED.**

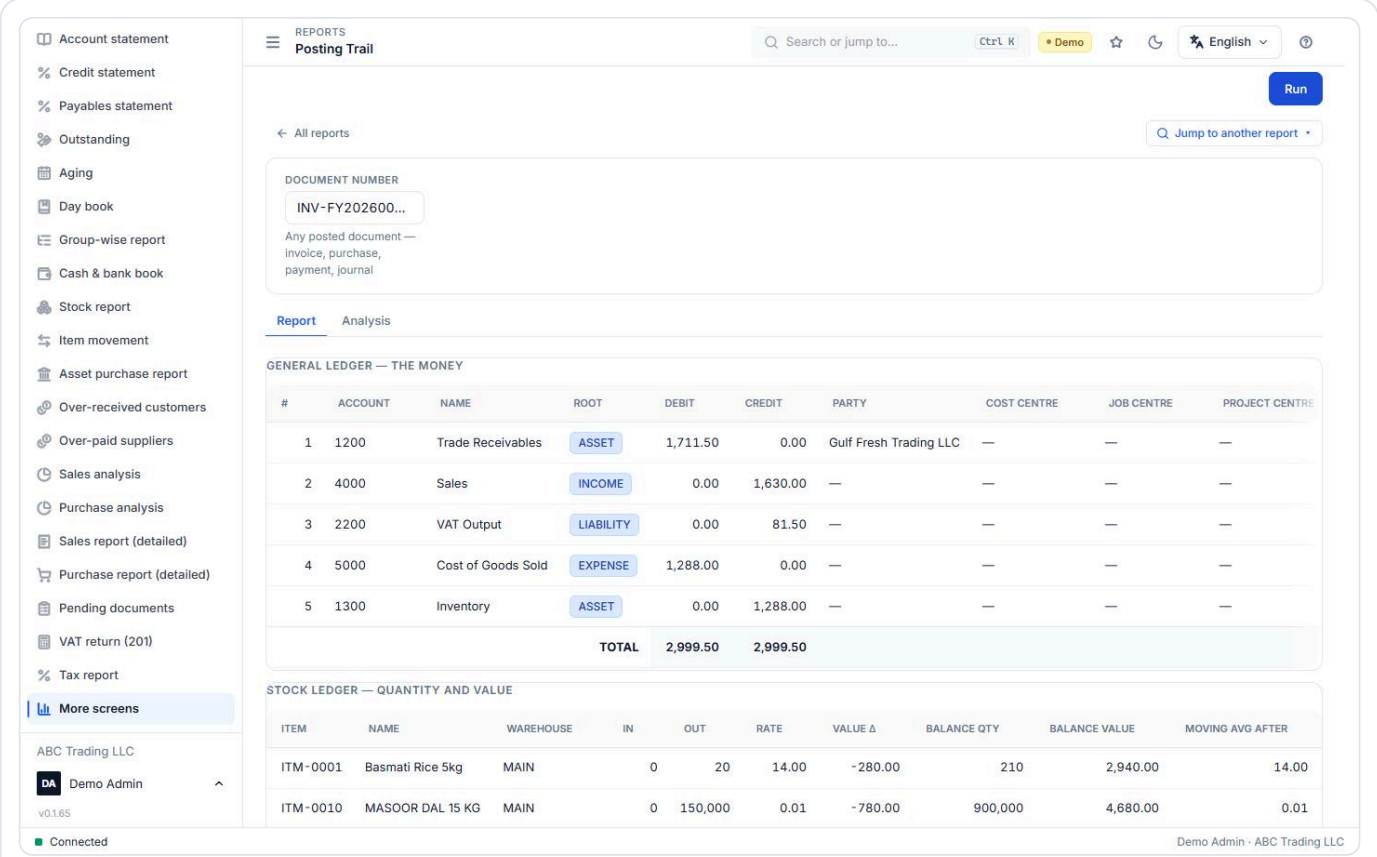
REAL EXAMPLE

One document, three ledgers: the Posting Trail of INV-FY202600001

The demo company sold 10 bags of MASOOR DAL 15 KG, 24 Sunflower Oil 1.8 L and 20 Basmati Rice 5kg to Gulf Fresh Trading LLC on credit. The Posting Trail report takes a document number and lists everything that one document wrote.

ACCOUNT	DR	CR
1200 Trade Receivables (Gulf Fresh Trading LLC)	1,711.50	
4000 Sales		1,630.00
2200 VAT Output		81.50
5000 Cost of Goods Sold	1,288.00	
1300 Inventory		1,288.00
Total	**2,999.50**	**2,999.50**

The VAT is 1,630.00 × 5% = 81.50. The stock ledger part of the same report shows the quantities that left stock, and the printed invoice total is 1,711.50.



Posting Trail. The top block is the general ledger: five rows that total 2,999.50 on each side. Below it the stock ledger shows the items taken out of the Main warehouse. The Document Number box and the Run button are at the top.

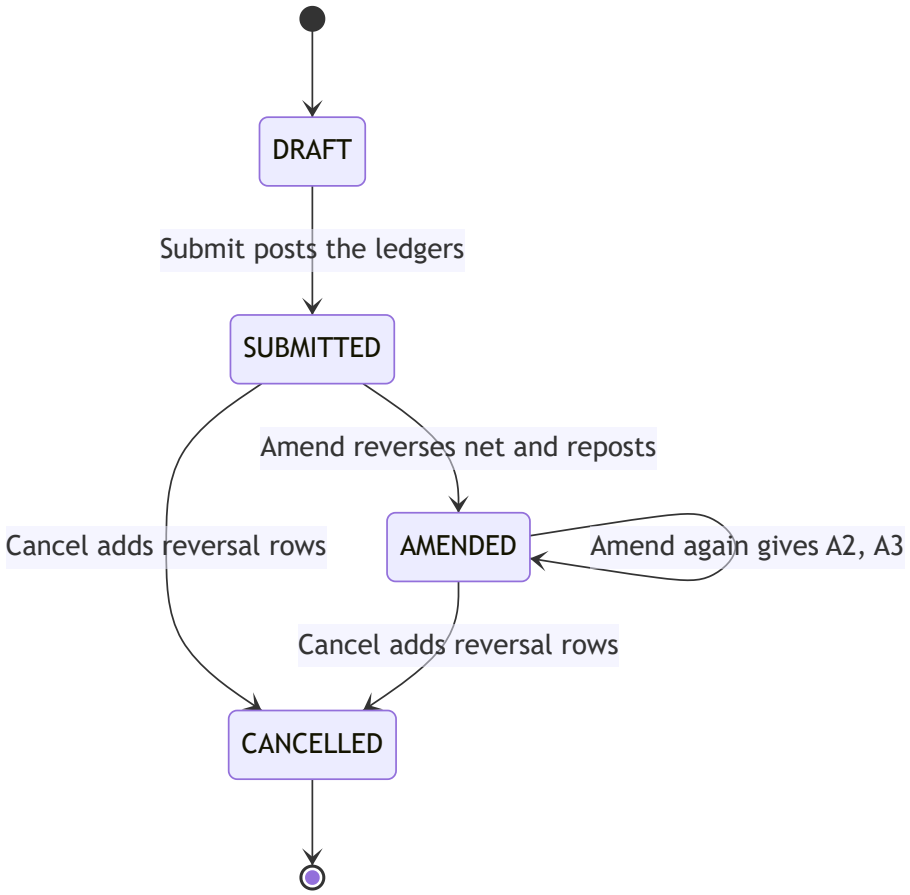
> **RULE: THE LEDGER IS APPEND-ONLY**
>
> Rows in gl_entry, vat_entry and stock_ledger are never edited or deleted. A correction is a new set of rows with the opposite sign. This is why every report can be reproduced for any past date.

How accounts are chosen

Documents do not carry account codes. The posting map picks the account by account type. For a sales invoice the map looks for the account of type Receivable, Sales, VatOutput and so on. If several accounts have the same type, the one with the lowest code wins. If a type is missing, the post fails with `ACCOUNT_MAP`. Receipts and payments take their cash or bank account from the payment mode (`payment_mode.account_id`). Journals are the exception: you pick the accounts yourself.

Amend and cancel use the same idea

Both actions add reversal rows. Nothing is overwritten.



Document life. An amended invoice keeps its number and gains a suffix: INV-00001 becomes INV-00001/A1, then /A2. A cancelled document keeps its number.

Amend first reverses the net of every earlier ledger row of the document (with negated values, flagged `is_reversal`), then posts the corrected version. Cancel does only the reversal. Amend or cancel is refused in these cases:

ERROR CODE	MEANING
`CHAIN_CHILDREN`	Live child documents exist (for example a receipt allocated to the invoice).
`PERIOD_CLOSED`	The accounting period is locked.
`PERIOD_FILED`	The VAT period that contains the document is filed.
`BANK_RECONCILED`	The bank line of the voucher is already reconciled.

REAL EXAMPLE

Amending a cash invoice (golden test GS_INV_03)

A cash invoice INV-00001 sells 10 units at 18.50 with 5% VAT: net 185.00, VAT 9.25, total 194.25 AED. The units cost 10.00 each. After the amend the number is INV-00001/A1. The ledger now holds the original rows, the reversal rows and the new rows. The reversal rows are exactly the negation of the original rows:

REVERSAL ROW	AMOUNT
1000 Cash in Hand	-194.25
4000 Sales	-185.00
2200 VAT Output	-9.25
5000 Cost of Goods Sold	-100.00
1300 Inventory	-100.00

The stock ledger shows the same story: OUT 10, then a reversal of +10, then OUT 10 again.

Net per document on statements

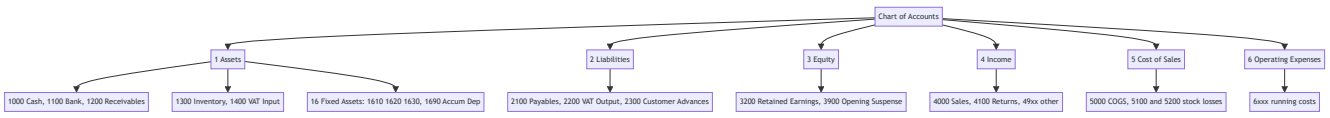
Because an amended document leaves an Original, a Reversal and an Amendment row, a naive statement would show three lines. Zeyto statements now show the net per document by default, with a "Show amendment history" toggle that lists every row. Advance VAT rows that post in the same event are different effects of one event and are not duplicates.

> Source: `src/Zeyto.Edge/Domain/PostingEngine.cs`, `src/Zeyto.Edge/Domain/GlMapper.cs`, `src/Zeyto.Edge/Domain/IPostingEngine.cs`, `tests/Zeyto.Tests/GoldenPostingTests.cs`, `docs/operations/w55-statement-duplicates.md`

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2. Chart of accounts, control accounts and dimensions

Open `Accounting ▸ Chart of Accounts`. The screen has a Tree view and a List view. A new company starts with 64 to 66 account rows in six root groups: 1 Assets, 2 Liabilities, 3 Equity, 4 Income, 5 Cost of Sales and 6 Operating Expenses. Fixed Assets is a sub-group (16) of Assets.



Six root groups. Statements are built by walking this tree, so an account placed under the wrong group lands on the wrong statement.

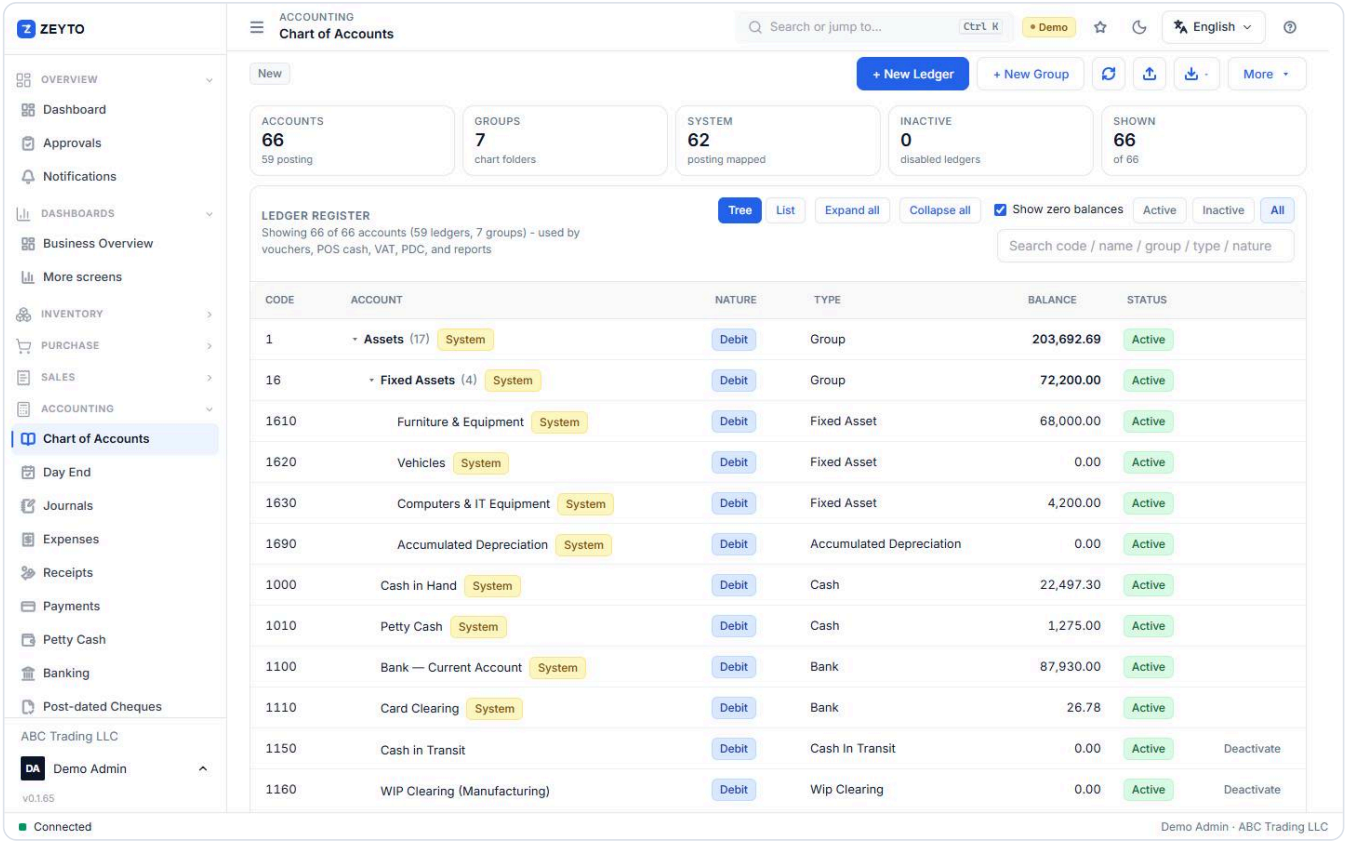


Chart of Accounts, Tree view. Columns are Code, Account, Nature, Type, Balance and Status. The yellow System badge marks seeded accounts. Fixed Assets (group 16) holds 1610, 1620, 1630 and 1690. The search box matches code, name, group, type and nature.

The seeded accounts you will meet most

CODE	NAME	USED BY
1000	Cash in Hand	Cash payment mode, cash invoices
1010	Petty Cash	Petty cash floats
1100	Bank - Current Account	Bank payment mode, cheques cleared
1110	Card Clearing	Card sales waiting to be settled (typed Bank)
1200	Trade Receivables	Customer invoices and receipts
1210	PDC Receivable	Post-dated cheques received
1300	Inventory	Stock at cost
1400	VAT Input	VAT you can reclaim
1450	Supplier Advances	Advance payments to suppliers
1460	Employee Advances	Petty cash staff advances
1690	Accumulated Depreciation	Depreciation runs
2100	Trade Payables	Supplier invoices and payments

CODE	NAME	USED BY
2110	PDC Payable	Post-dated cheques issued
2150	Goods Received Not Invoiced	Goods receipts before the supplier bill
2200	VAT Output	VAT you owe
2300	Customer Advances	Money received before invoicing
3200	Retained Earnings	Year-end close
3900	Opening Balance Suspense	Difference when openings do not balance
4000	Sales	Net sales
4910	Realized FX Gain/Loss	Exchange differences on settlement
4920	Rounding Difference	Invoice rounding and tiny FX differences
4940	Gain/Loss on Disposal of Fixed Assets	Asset disposal
5000	Cost of Goods Sold	Cost of stock sold
5910	Cash Short & Over	Petty cash count differences
6500	Bank Charges	Bounced cheque and bank fees
6700	Depreciation Expense	Depreciation runs
6860	Discount Allowed	Receipt discounts

Not verified in code: the full list of account type names. It lives in `accountTypeNames.ts` in the web app. Check the type of an account on its form before you rely on it.

SEEDED ACCOUNTS ARE SYSTEM ACCOUNTS

You can rename a seeded account. You cannot retype it, because posting maps find accounts by type. Add your own accounts under the right group for new needs.

Control accounts

A control account is one whose balance must equal a sub-ledger. 1200 Trade Receivables must equal the sum of all customer balances. 2100 Trade Payables must equal the sum of all supplier balances. 1300 Inventory must equal stock value. 2200 and 1400 must equal the VAT ledger. You verify these in the last section of this chapter.

Dimensions: Cost Centers, Job Centers and Project Centers

Dimensions tag a line so you can report profit by department, job or project. They are three separate tags and a line can carry all three.

- `Accounting ▸ Cost Centers` is on by default.
- `Accounting ▸ Job Centers` and `Project Centers` are turned on in `Settings ▸ Document Entry`.
- A line's own centre wins over the centre set on the document header.
- The report Profit by Dimension (Reports, Fin package) reads these tags.

> **TIP**
> Decide your centres before the first entry. Tags are written with the ledger row, so tagging old rows later means an amend.

The tiles on the real screen agree with this: Accounts 66 (59 posting), Groups 7, System 62, Inactive 0. The buttons are `+ New Ledger` and `+ New Group`.

Not verified in the sidebar: the Accounting group of the demo sidebar shows Chart of Accounts, Day End, Journals, Expenses, Receipts, Payments, Advances, Petty Cash, Banking, Post-dated Cheques, Bank Recon, Fixed Assets and Year-End Close in one flat list. Screens I name that are not in that list (Openings, Cost Centers, Job Centers, Project Centers, Bank Accounts, Card Settlements, Asset Categories, Amortization) are in the menu definitions under Accounting. Reach them with the search box (Ctrl K) or from links inside other screens.

> Source: `src/Zeyto.Edge/Data/migrations/0009-seed-core.sql`, `docs/operations/w14-coa.md`, `docs/operations/w44-coa-all-rows.md`, `src/Zeyto.Web/src/help/content/accounting-ledger.ts`, `src/Zeyto.Web/src/nav.ts`

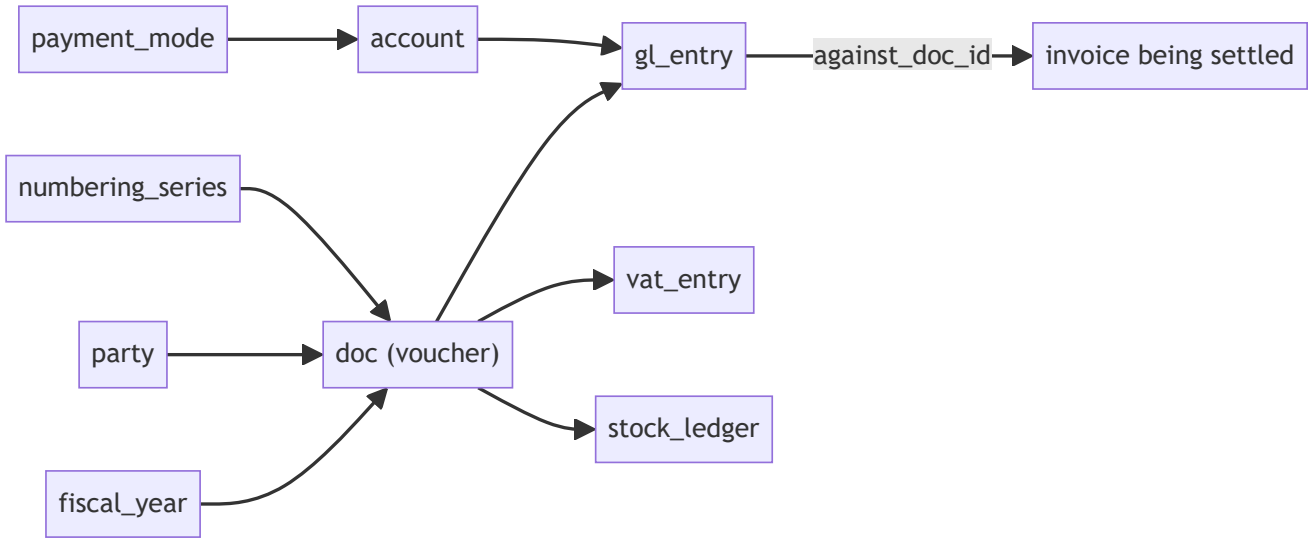
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3. Vouchers and journals: receipts, payments, expenses, contra, advances

A voucher is a document you enter by hand to record money moving. The four everyday vouchers are the Receipt, the Payment, the Expense and the Journal. Bank deposits, withdrawals, charges and transfers are stored as Contra vouchers (prefix CTR-) and the screens name them by what they are.

VOUCHER	MENU	NUMBER	TYPICAL JOURNAL
Receipt Voucher	`Accounting ▸ Receipts`	RV- (RV-FY202600001 in the demo company)	Dr cash or bank, Cr Trade Receivables
Payment Voucher	`Accounting ▸ Payments`	PV-	Dr Trade Payables, Cr cash or bank
Expense Voucher	`Accounting ▸ Expenses`	EXP-	Dr expense (and VAT Input), Cr cash or bank
Journal Voucher	`Accounting ▸ Journals`	JV-	Any balanced set of lines
Advance Receipt / Advance Payment	`Accounting ▸ Advances`	ADR- / ADP-	Dr cash, Cr Customer Advances and VAT Output
Bank entry and Inter-Account Transfer	`Accounting ▸ Banking`	CTR-	Dr and Cr between cash, bank and charges

Numbers carry the financial year in a real company. The demo company shows RV-FY202600001 for a receipt, JV-FY202600003 for a journal and INV-FY202600001 for an invoice. The golden tests build a company with short numbers (INV-00001, RCT-00001, JV-00001), and the worked examples in this chapter keep those test numbers.



Where a voucher lands. The voucher takes its number from numbering_series, its cash account from payment_mode, and writes gl_entry rows. A receipt row carries `against_doc_id`, the invoice it settles. That link is how open items are matched.

Receipts and payments: open items are matched oldest first

When you receive money from a customer, Zeyto matches it to that customer's unpaid invoices, oldest first. Each allocation is one credit line on Trade Receivables with the invoice in `against_doc_id`. Money left over after all open invoices is credited to Customer Advances (2300). A payment to a supplier is the mirror image, with Supplier Advances (1450) for the remainder.

REAL EXAMPLE

One receipt settles two invoices (golden test GS_RV_01)

The customer owes two invoices: 100.00 dated 10/03 and 50.00 dated 12/03. The customer pays 120.00 in cash on one receipt, RCT-00001.

ACCOUNT	DR	CR
1000 Cash in Hand	120.00	
1200 Trade Receivables (against the 10/03 invoice)		100.00
1200 Trade Receivables (against the 12/03 invoice)		20.00
Total	**120.00**	**120.00**

The older invoice is now fully paid. The newer one has 30.00 open. No VAT row and no stock row is written, because VAT was already counted on the invoices.

REAL EXAMPLE

Overpayment becomes an advance (golden test GS_RV_02)

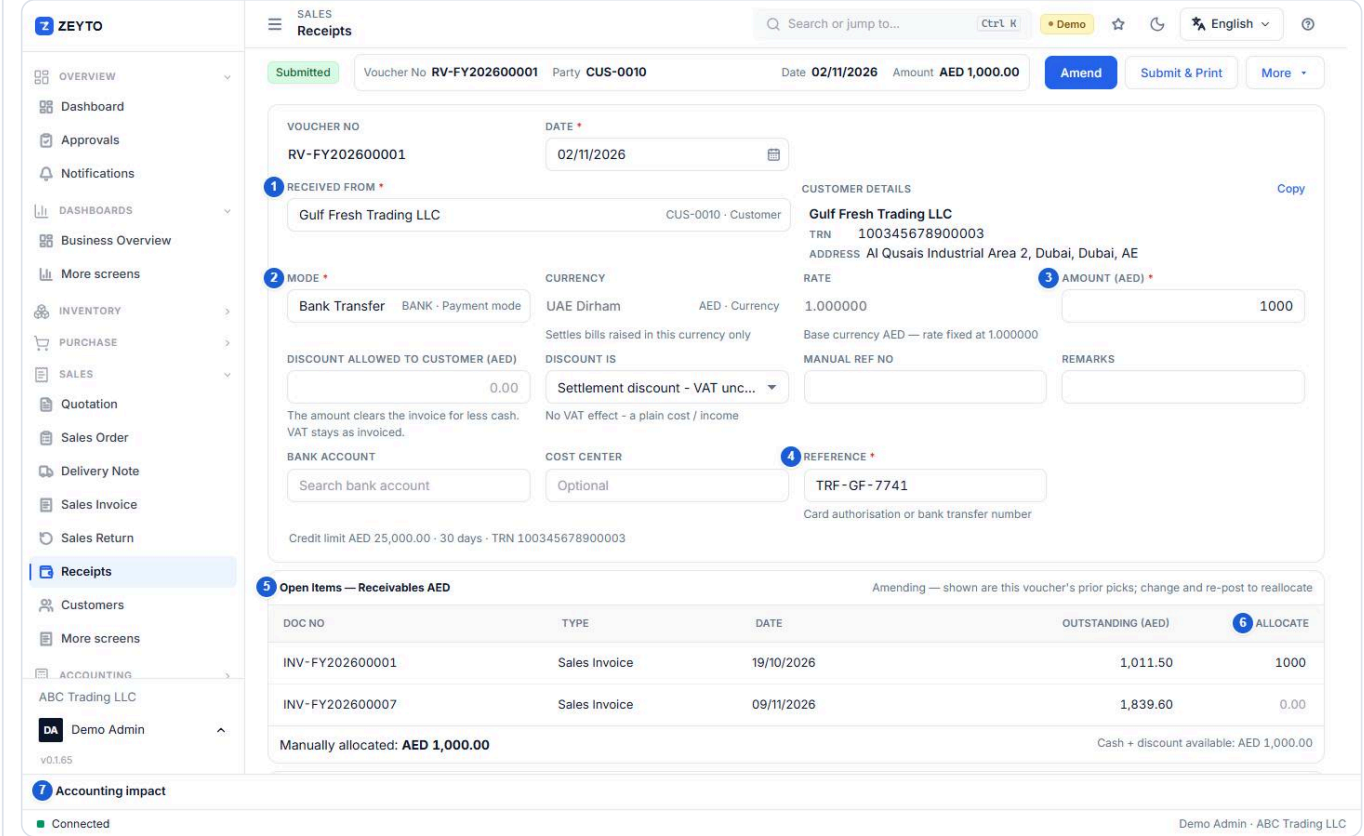
One invoice of 100.00 is open. The customer pays 150.00 cash.

ACCOUNT	DR	CR
1000 Cash in Hand	150.00	
1200 Trade Receivables		100.00
2300 Customer Advances		50.00
Total	**150.00**	**150.00**

The 50.00 on 2300 is a liability: you owe the customer goods or a refund. It is applied to the next invoice.

A receipt can also carry a discount. The posting map debits Discount Allowed (6860) and, when the discount is given before or after tax, adjusts VAT Output. Payments do the same with Discount Received (4930). A foreign-currency receipt posts the exchange difference to 4910, or to Rounding Difference 4920 when the difference is at or below the settlement rounding threshold (default 0.01).

1. **Open the screen.** Go to `Accounting ▸ Receipts` and start a new receipt.
2. **Pick the customer.** Use the typed picker. The open invoices of that customer appear.
3. **Choose the payment mode.** Cash, bank, card or a cheque mode. The mode decides the Dr account.
4. **Allocate.** The Open Items table lists the customer's unpaid invoices with Outstanding and Allocate columns. Type the amount to put against each invoice, or give no allocation and the posting map settles the oldest first. The screen shows the total as Manually allocated. A Reference is required (card authorisation or bank transfer number).
5. **Post.** Press `Save & Post`. The receipt gets its number and the journal appears in the Day book.
6. **Check.** Open Reports, Account statement for the customer. The invoices show as paid and the balance has fallen by the amount received.



Receipt Voucher with allocation. RV-FY202600001 takes 1,000.00 by Bank Transfer from Gulf Fresh Trading LLC and puts all of it against INV-FY202600001. The customer details panel shows the TRN and address, and a line under the form shows the credit limit AED 25,000.00 and 30 days.

1. RECEIVED FROM: the customer, picked from a typed list; the code CUS-0010 shows beside the name.
2. MODE: the payment mode. It decides the account that is debited. Bank Transfer here.
3. AMOUNT (AED): the money received, 1,000.00.
4. REFERENCE: required, the card authorisation or bank transfer number, TRF-GF-7741 here.
5. Open Items, Receivables AED: the customer's unpaid invoices.
6. ALLOCATE column: the amount you put against each invoice. 1,000 goes against INV-FY202600001 and INV-FY202600007 stays at 0.00.
7. Accounting impact: the bar at the bottom of the screen for the journal the receipt posts.

The form also has Discount Allowed to Customer (AED) and a Discount is list. The visible option reads "Settlement discount - VAT unchanged", with the note "No VAT effect - a plain cost / income".

Expenses

Use `Accounting ▸ Expenses` for rent, utilities and other costs paid from cash or bank. The expense type you choose decides the expense account (`Settings ▸ Expense Types`). If the expense carries VAT, the VAT part goes to VAT Input (1400) and a vat_entry row is written so the VAT 201 return sees it.

REVERSE CHARGE ON AN EXPENSE

An expense line with the RCM tax code is for supplies where you self-assess VAT. The product help warns that the API does not stop you putting an RCM code on an Expense line. Use the Taxable Journal with the Reverse charge (RCM) type for these, so both sides of the tax post.

Journals

Zeyto has three journal screens under `Accounting`.

Journals

The plain Journal Voucher (JV-). You pick accounts and amounts. No VAT, no stock. Debits must equal credits or the engine throws `UNBALANCED`.

Taxable Journal

A journal with VAT. Voucher Types: Expense (input VAT), Income (output VAT), Reverse charge (RCM) and VAT adjustment. It writes a vat_entry row, so the VAT return sees it.

Adjustment Journal

Credits and write-offs against specific invoices. It has a Difference Account for the small remainder.

REAL EXAMPLE

A plain journal and a refused one (golden test GS_JV_01)

JV-00001 records 50.00 of miscellaneous expense paid from cash.

ACCOUNT	DR	CR
6900 Miscellaneous Expenses	50.00	
1000 Cash in Hand		50.00
Total	**50.00**	**50.00**

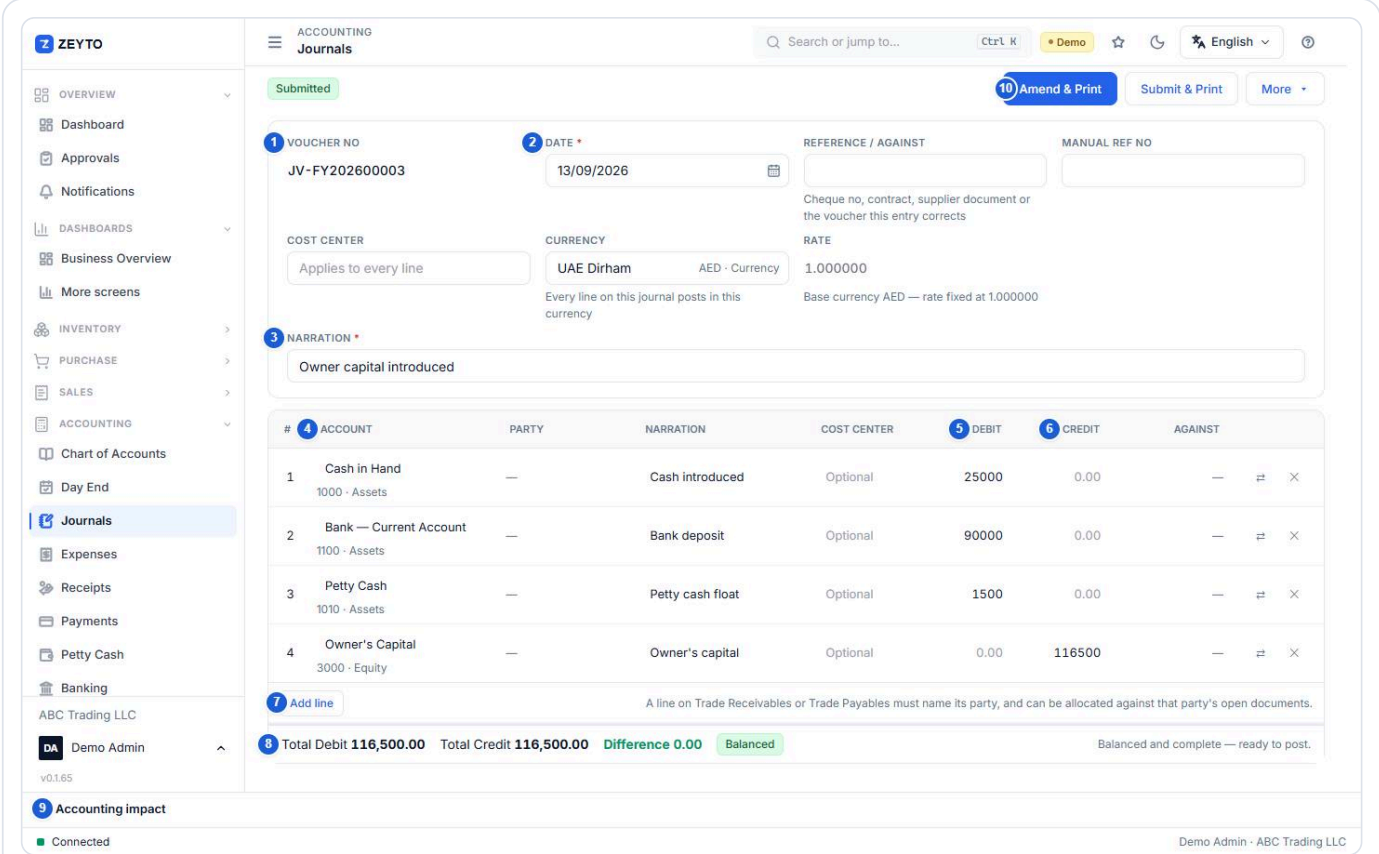
The same journal with 50.00 on the debit side and 40.00 on the credit side is refused with `UNBALANCED`. The document stays DRAFT and no row is written to any ledger.

REAL EXAMPLE

Owner capital introduced (demo company, JV-FY202600003)

On 13/09/2026 the demo company records the owner's capital: 25,000.00 cash, 90,000.00 to the bank and a 1,500.00 petty cash float.

ACCOUNT	DR	CR
1000 Cash in Hand	25,000.00	
1100 Bank - Current Account	90,000.00	
1010 Petty Cash	1,500.00	
3000 Owner's Capital		116,500.00
Total	**116,500.00**	**116,500.00**



Journal Voucher. The four lines carry their own narration and an optional cost center. The totals row stays on screen, and a note says a line on Trade Receivables or Trade Payables must name its party.

1. VOUCHER NO: the number the voucher received when it was posted, JV-FY202600003 here.
2. DATE: the voucher date. It must fall in an open period.
3. NARRATION: the required description of the whole voucher.
4. ACCOUNT column: the ledger each line posts to, picked by name with its code and group shown beneath.
5. DEBIT column: the amount you debit on the line.
6. CREDIT column: the amount you credit on the line.
7. Add line: adds one more row to the grid.
8. Total Debit / Total Credit / Difference / Balanced: the live check that debits equal credits. Here both totals are 116,500.00 and the difference is 0.00.
9. Accounting impact: the bar fixed at the bottom of the screen where the journal the voucher posts is shown.
10. Amend & Print: the main button once the voucher is Submitted. Amend reopens it, within the refusals listed in section 1.

ILLUSTRATIVE FIGURES

Taxable Journal: VAT is rounded per line

You post an Expense type Taxable Journal with two lines of 10.10 net each, VAT 5%. Auto-VAT works on the net you type and rounds half-up on each line: 10.10 × 5% = 0.505, which rounds to 0.51 per line. The VAT total is 1.02. Rounding the whole 20.20 once would give 1.01, which is not what Zeyto posts.

ACCOUNT	DR	CR
6900 Miscellaneous Expenses (net)	20.20	
1400 VAT Input	1.02	
1000 Cash in Hand		21.22
Total	**21.22**	**21.22**

A vat_entry row of INPUT type records 20.20 taxable and 1.02 VAT. The account names above are the seeded ones; the figures are chosen to show the rounding rule documented for the Taxable Journal.

- A Taxable Journal needs the supplier invoice number and date, and a party or a valid TRN.
- Negative lines in a matched pair are corrections. A mix of positive and negative lines that cannot pair is refused.

Advances

An advance is money taken or paid before an invoice. `Accounting ▸ Advances` posts it with the `Post Advance` button. VAT on an advance is due when the money is received, so the advance posts VAT right away. Chapter 9 explains the VAT side in full.

REAL EXAMPLE

Advance received, 105.00 with 5% VAT (golden test GS_ADV_01)

ADR-00001 takes 105.00 in cash. The VAT is 105 × 5 / 105 = 5.00 and the net is 100.00.

ACCOUNT	DR	CR
1000 Cash in Hand	105.00	
2300 Customer Advances		100.00
2200 VAT Output		5.00
Total	**105.00**	**105.00**

The mirror, ADP-00001 for 105.00 paid to a supplier, posts Dr 1450 Supplier Advances 100.00, Dr 1400 VAT Input 5.00, Cr 1000 Cash in Hand 105.00 (golden test GS_ADV_02).

Bank deposits, withdrawals and charges

REAL EXAMPLE

Bank entries (golden test GS_BANK_01)

Depositing 250.00 from cash posts CTR-00001. A bank charge of 15.00 posts CTR-00002. Neither has VAT.

VOUCHER	ACCOUNT	DR	CR
CTR-00001	1100 Bank - Current Account	250.00	
CTR-00001	1000 Cash in Hand		250.00
CTR-00002	6500 Bank Charges	15.00	
CTR-00002	**1100 Bank - Current Account**		**15.00**

On the screen, fill the entry and press `Post Entry`. The Inter-Account Transfer screen moves money between your own cash and bank accounts the same way.

> Source: `src/Zeyto.Web/src/help/content/accounting-vouchers.ts`, `src/Zeyto.Web/src/help/content/accounting-journals.ts`, `src/Zeyto.Edge/Domain/GlMapper.cs`, `tests/Zeyto.Tests/GoldenPostingTests.cs`, `docs/operations/voucher-matrix-money-2026-11-04.md`, `docs/operations/w26-journal-pettycash-pdc-2026-11-06.md`, `src/Zeyto.Edge/Data/migrations/0009-seed-core.sql`

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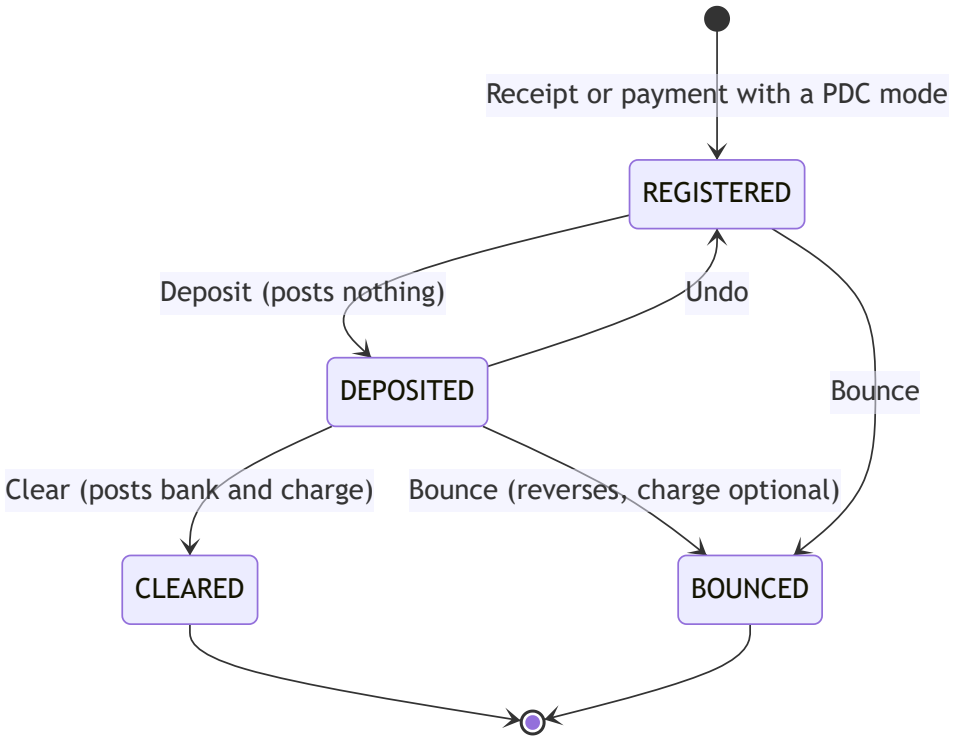
4. Banking: accounts, cheques, reconciliation, cards and petty cash

Bank Accounts master

Open `Accounting ▸ Bank Accounts`. Each bank account is linked to a GL Account (for example 1100). Three fields control printing: "Show on customer invoices & statements", Print Order and Print Label, plus the SWIFT/BIC. When a document is printed, the bank block uses the flagged accounts. It picks the accounts whose currency matches the document, then the base-currency ones, then all flagged accounts. If no account is flagged, the bank details from Company Profile print instead.

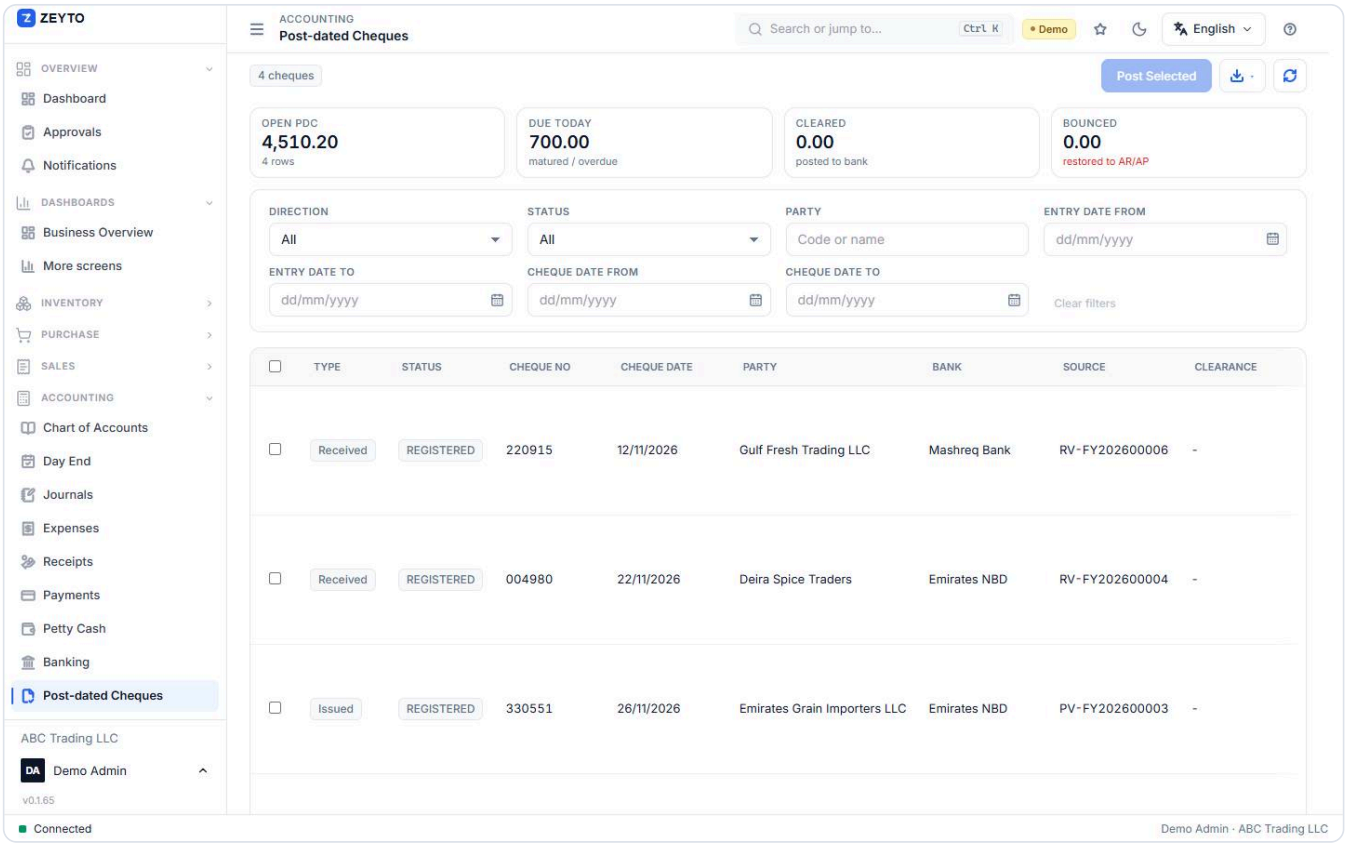
Post-dated cheques (PDC)

A post-dated cheque is a promise to pay on a future date. Zeyto holds it in a PDC account until the bank clears it, so your bank balance never counts money that has not arrived. Received cheques use PDC Receivable (1210). Issued cheques use PDC Payable (2110).



Cheque life. The buttons on `Accounting ▸ Post-dated Cheques` are Deposit, Clear, Bounce, Undo and Slip (the deposit slip).

Not verified in code: whether a cheque can be bounced straight from REGISTERED without a Deposit step, and which states Undo can step back from. The golden tests show Bounce after registration and Clear after Deposit. Open the PDC screen and see which buttons it offers for each status.



Post-dated Cheques. Tiles show Open PDC 4,510.20 (4 rows), Due Today 700.00, Cleared 0.00 and Bounced 0.00. The grid lists Type (Received or Issued), Status, Cheque No, Cheque Date, Party, Bank, Source voucher and Clearance. Cheque 330551 is Issued to Emirates Grain Importers LLC from PV-FY202600003; the other cheques are Received. The filters are Direction, Status, Party and the entry and cheque date ranges, and `Post Selected` acts on the ticked rows.

REAL EXAMPLE

A received cheque that bounces (golden test GS_PDC_01)

A customer gives a 100.00 post-dated cheque. You receive it with payment mode PDCIN. On 01/05 the bank returns it and charges you 2.00.

STEP	ACCOUNT	DR	CR
Receipt with PDCIN	1210 PDC Receivable	100.00	
Receipt with PDCIN	1200 Trade Receivables		100.00
Bounce 01/05	1200 Trade Receivables	100.00	
Bounce 01/05	1210 PDC Receivable		100.00
Bounce charge	6500 Bank Charges	2.00	
Bounce charge	**1100 Bank - Current Account**		**2.00**

After the bounce the customer owes the 100.00 again.

REAL EXAMPLE

A cheque that clears with a charge (golden test GS_PDC_02)

Deposit posts nothing. Clear, with a bank charge of 2.00 on the 100.00 cheque, posts one journal:

ACCOUNT	DR	CR
1100 Bank - Current Account	98.00	
6500 Bank Charges	2.00	
1210 PDC Receivable		100.00
Total	**100.00**	**100.00**

For an issued cheque (payment mode PDCOUT, test GS_PDC_03) the payment posts Dr 2100 Trade Payables 100.00 and Cr 2110 PDC Payable 100.00. A bounce reverses it: Dr 2110 100.00, Cr 2100 100.00.

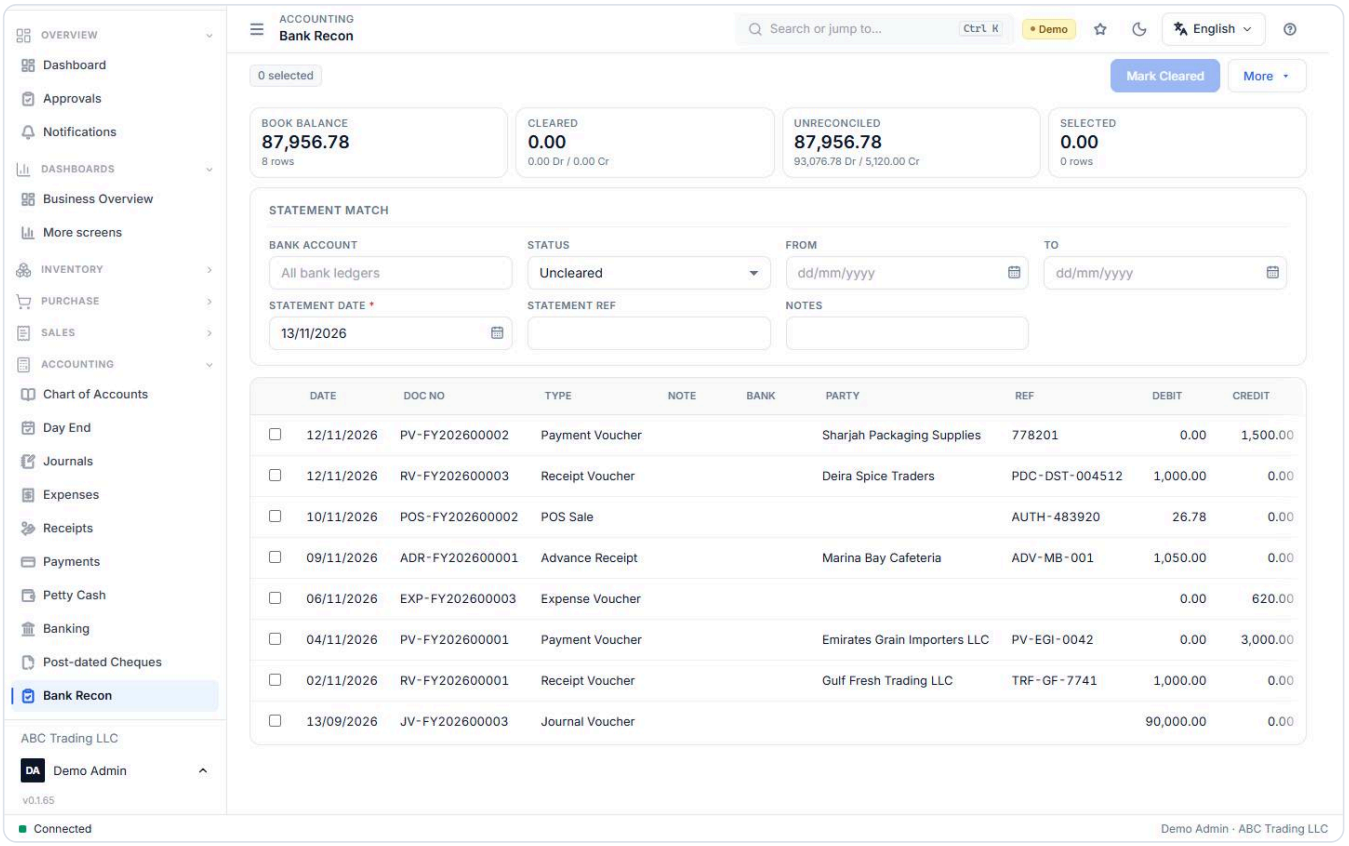
CHEQUE DATE GUARD

Deposit, Clear and Bounce are refused when the date you give is before the date of the voucher that registered the cheque. Without this guard the PDC account would go negative for the days in between. Clearing a received cheque before its cheque date is allowed, because banks accept an early deposit.

Bank Reconciliation

Reconciliation here is a tick-box exercise. It does not import a statement. The tiles show Book Balance, Cleared, Unreconciled and Selected, but I saw no field for the closing balance on your statement, so you compare that figure yourself.

1. **Open the screen.** Go to `Accounting ▸ Bank Recon`.
2. **Choose the bank account.** The ledger lines of that account appear.
3. **Set the statement details.** Statement Date is required. Statement Ref and Notes are optional. Bank Account (default All bank ledgers), Status (default Uncleared), From and To narrow the list.
4. **Tick the lines** that appear on your paper or online bank statement.
5. **Press** `Mark Cleared`. The lines are flagged reconciled. The action needs the accounting.amend permission.
6. **Compare.** Add up the uncleared lines yourself. Statement balance, plus deposits not yet cleared, minus cheques not yet cleared, should equal the Book Balance tile.



Bank Recon. Book Balance 87,956.78 over 8 rows, Cleared 0.00, Unreconciled 87,956.78 (93,076.78 Dr and 5,120.00 Cr). All bank ledgers includes Card Clearing, typed Bank: 87,930.00 on 1100 plus 26.78 on 1110 gives 87,956.78. Each row shows Date, Doc No, Type, Party, Ref, Debit and Credit, and `Mark Cleared` stays grey until you tick a row.

RECONCILED MEANS LOCKED

A voucher whose bank line is reconciled cannot be amended or cancelled (`BANK_RECONCILED`). Fix the entry with a new voucher instead.

Card settlements

Card sales do not reach your bank on the day of sale. They sit in Card Clearing (1110) until the card company pays you less its fee. `Accounting ▸ Card Settlements` is available once you turn on `Settings ▸ Merchant Fees` . You create a Settlement as a draft, then press Post. Posting moves the money from 1110 to the bank, books the fee and the VAT on the fee, and records any chargebacks. A posted settlement can be reversed.

Settlements

The settlement drafts and posted settlements.

Unsettled & ageing

Card sales still in clearing, by age.

Fees, Variance, Chargebacks

Fee detail, expected versus received, and returned payments.

Bank statements

CSV and MT940 statement import. This is the only place Zeyto imports a bank statement.

Clearing reconciliation

Proves that 1110 equals the unsettled sales.

There is also a CSV import of settlement files, a month-end accrual for fees and a Reverse action.

Petty cash

The Petty Cash group has Petty Cash (the floats), PC Vouchers, PC Replenishments, PC Cash Count, PC Count History and PC Staff Advances. A float has an imprest amount, a custodian and a GL cash account (for example 1010).

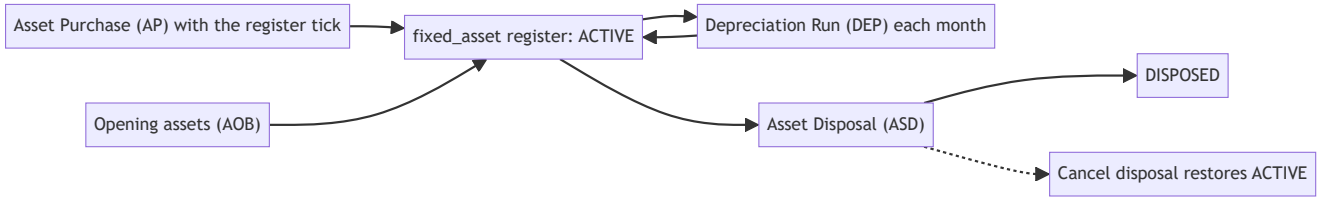
- A petty cash expense with VAT needs the supplier TRN and the bill number.
- A replenishment is an inter-account transfer from bank or cash back up to the imprest.
- A cash count compares the counted cash with the book balance. The difference posts to 5910 Cash Short & Over.
- Staff advances use 1460 Employee Advances.
- If a voucher would take the float below zero, the system raises `PETTY_CASH_OVERDRAWN`. It is a block, or a warning for users who hold the pettycash.override-float permission.

> Source: `src/Zeyto.Web/src/help/content/accounting-vouchers.ts`, `src/Zeyto.Web/src/help/content/accounting-petty-cash.ts`, `src/Zeyto.Web/src/help/content/accounting-card-settlements.ts`, `src/Zeyto.Edge/Data/migrations/0011-pdc-management.sql`, `tests/Zeyto.Tests/GoldenPostingTests.cs`, `docs/operations/w31-receipt-bank-accounts-2026-11-07.md`, `docs/operations/w29-journal-open-items-2026-11-06.md`

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5. Fixed assets and amortization

A fixed asset is something you keep and use for years: furniture, vehicles, computers. You do not expense it on the day you buy it. You record it at cost and charge a part of the cost to expense every month. The product keeps an asset register next to the ledger. The register total for cost must always equal the ledger balance of the cost account, and the register's accumulated depreciation must equal 1690. The golden tests check this after every step.



Asset life. Purchases, openings and disposals all post through the same engine, so every step is a balanced journal.

Buying an asset

An asset starts as a purchase. In the Asset Purchase form you tick **Register this purchase as a fixed asset**. Purchases of several units can register one asset per unit. Assets you already own go in as opening assets: they are drafts until you press `Post Opening Assets`, which posts an AOB voucher against Opening Balance.

REAL EXAMPLE

Buying a 12,000.00 asset on credit (golden test GS_FA_01)

A purchase of 12,000.00 on 10/01/2026 with 5% VAT, payable to the supplier. Cost account 1610 Furniture & Equipment.

ACCOUNT	DR	CR
1610 Furniture & Equipment	12,000.00	
1400 VAT Input	600.00	
2100 Trade Payables		12,600.00
Total	**12,600.00**	**12,600.00**

The register shows cost 12,000.00, accumulated 0.00, status ACTIVE. When VAT on the purchase cannot be recovered, it is added to the asset cost and no input VAT is claimed (test GS_FA_13).

Depreciation

Zeyto supports Straight line and Reducing balance. You post depreciation one month at a time with the `Depreciation Run` button on `Accounting ▸ Fixed Assets`. Each run posts one DEP voucher for the month: Dr 6700 Depreciation Expense, Cr 1690 Accumulated Depreciation. A Catch up action posts the months that are due in order.

- Running the same month twice posts nothing the second time (`NOTHING_TO_DEPRECIATE`).
- Skipping a month is refused (`DEPRECIATION_GAP`). It is never back-filled silently.
- Cancelling a run reverses it and reopens the month. Cancelling goes last in, first out.
- Amending a run reverses and reposts it with the same figures.
- The product help says the first charge is pro-rated by days from the start date and the last part-month is the extra month.

REAL EXAMPLE

Twelve months of straight line (golden test GS_FA_02)

The 12,000.00 asset above, 12 months, no residual. Every monthly run posts the same journal and the charges add up to the cost exactly.

ACCOUNT (EACH MONTH)	DR	CR
6700 Depreciation Expense	1,000.00	
1690 Accumulated Depreciation		**1,000.00**

After month 6 the register shows accumulated 6,000.00 and a written-down value of 6,000.00. A thirteenth run is refused.

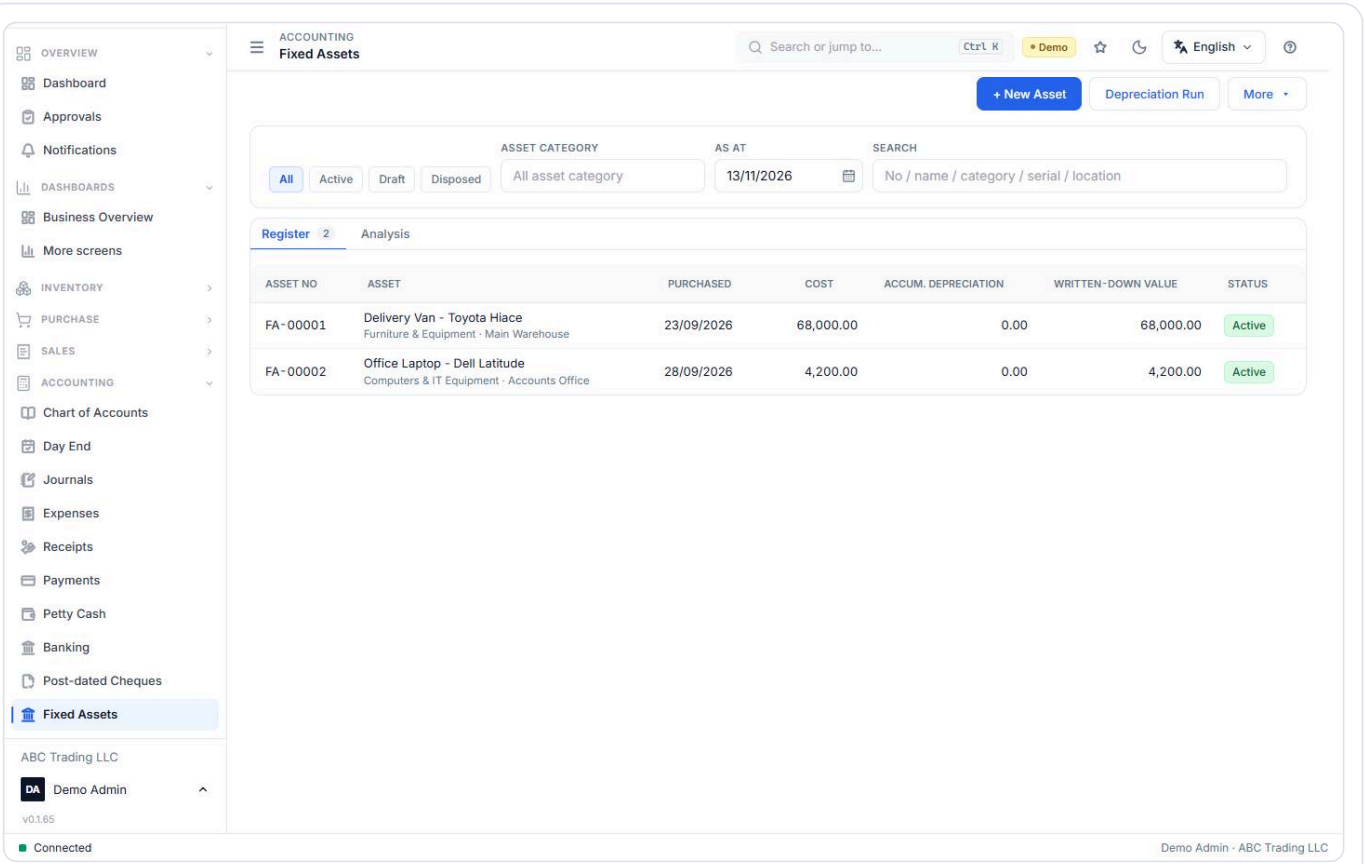
REAL EXAMPLE

Uneven division with no plug (golden test GS_FA_03)

Cost 1,000.00, residual 100.00, 7 months. The depreciable base is 900.00. Each month's target is the rounded running total, round(900 x n / 7, 2): 128.57, 257.14, 385.71, 514.29, 642.86, 771.43, 900.00. The monthly charge is the difference from the month before, so the charges are 128.57 six times and 128.58 once (month 4). The seven charges add to exactly 900.00 with no correcting entry at the end.

Reducing balance charges the rate on the opening written-down value each month. In test GS_FA_04, cost 10,000.00 at a 24% rate gives 10,000 × 24 / 1,200 = 200.00 for month 1.

1. **Register the asset.** Enter the Asset Purchase and tick **Register this purchase as a fixed asset**. Pick the category (`Accounting ▸ Asset Categories`) so life and method come from it.
2. **Open the register.** Go to `Accounting ▸ Fixed Assets` and check cost, purchase date and status.
3. **Run depreciation.** On the Fixed Assets screen press `Depreciation Run`, pick the month and post. Do this every month, or use Catch up.
4. **Check.** The Fixed Asset Register report shows the same cost as account 1610 and the same accumulated depreciation as 1690 in the Trial balance.



Fixed Assets register. The demo company has FA-00001 Delivery Van - Toyota Hiace (cost 68,000.00) and FA-00002 Office Laptop - Dell Latitude (cost 4,200.00), both Active with accumulated depreciation 0.00. Filters are All, Active, Draft and Disposed, Asset Category, As at and Search. The tabs are Register and Analysis. The buttons are `+ New Asset` and `Depreciation Run`. Those costs match 1610 (68,000.00) and 1630 (4,200.00) in the Chart of Accounts.

Disposal

Selling or scrapping an asset posts an ASD voucher. Depreciation must be posted up to the month before the disposal date, or the disposal is refused (test GS_FA_10). The disposal removes cost and accumulated depreciation, books the proceeds and puts the difference in 4940 Gain/Loss on Disposal of Fixed Assets. A sale with VAT books VAT Output and a vat_entry row. A sale on credit is allowed.

REAL EXAMPLE

Selling at a gain (golden test GS_FA_08)

After 6 months the written-down value is 6,000.00. On 20/07/2026 you sell for 7,000.00 plus 5% VAT, received in the bank.

ACCOUNT	DR	CR
1100 Bank - Current Account (7,000 + 350 VAT)	7,350.00	
1690 Accumulated Depreciation	6,000.00	
1610 Furniture & Equipment		12,000.00
4940 Gain/Loss on Disposal of Fixed Assets		1,000.00
2200 VAT Output		350.00
Total	**13,350.00**	**13,350.00**

Gain = 7,000.00 - 6,000.00 = 1,000.00. The register shows cost 0.00 and status DISPOSED. Selling the same asset for 4,000.00 gives Dr 1100 4,200.00, Dr 1690 6,000.00, Dr 4940 2,000.00 (a loss), Cr 1610 12,000.00, Cr 2200 200.00 (test GS_FA_09). Cancelling the disposal restores the asset to ACTIVE with accumulated 6,000.00.

FILED VAT PERIODS

A disposal with VAT is refused when its VAT period is already filed. Depreciation is never blocked by a VAT filing, because it carries no VAT (test GS_FA_15).

Amortization schedules

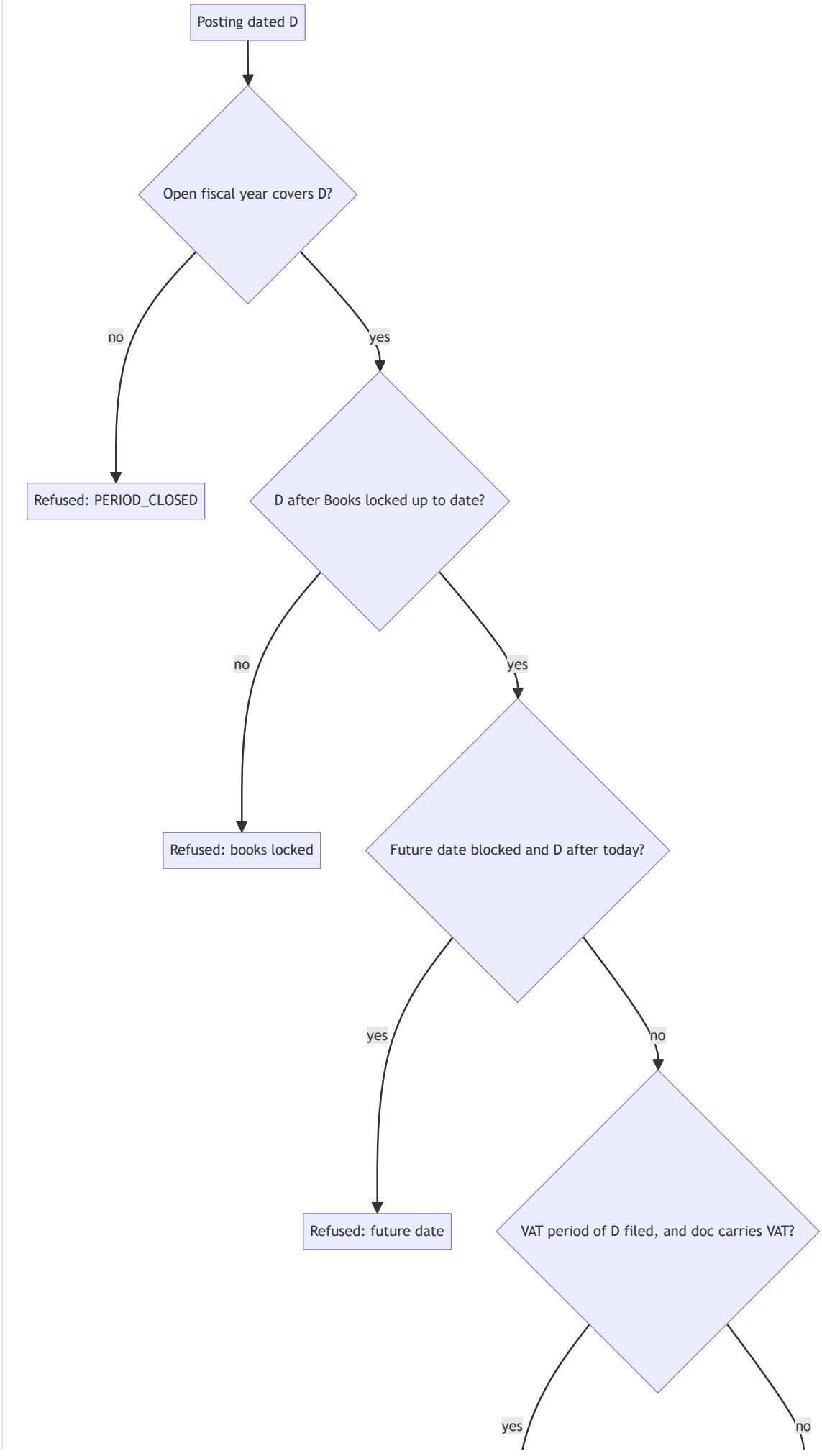
Amortization spreads a prepaid cost (Prepaid Expense) or an advance income (Deferred Income) over months. Under `Accounting ▸ Amortization` you have Amortization Expense, Amortization Schedules and Post Amortizations. Each schedule has a Posting Mode, Manual or Automatic. A background service runs Automatic schedules every 30 minutes. Manual schedules post when you open Post Amortizations.

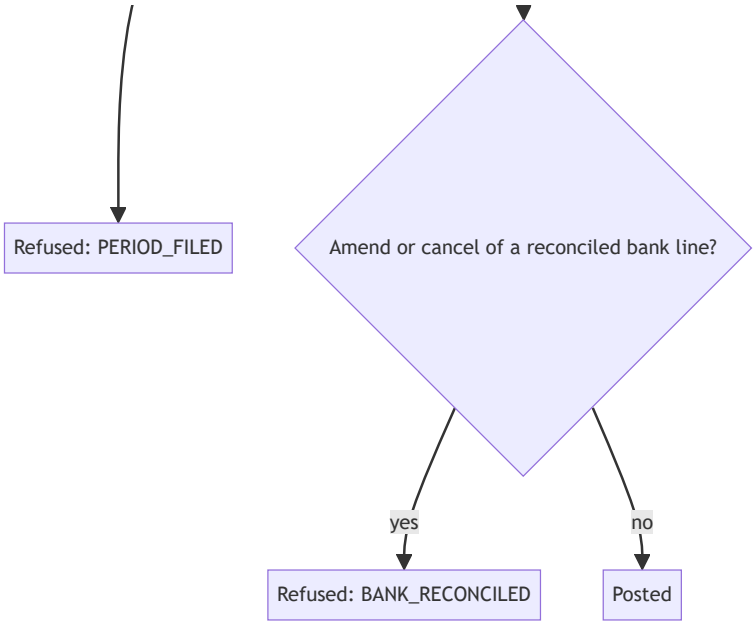
Not verified in code: which ledger accounts the Amortization form proposes by default. The product help says the form starts with example values and that the account 1450 listed there is Supplier Advances, not a prepaid account. Choose the correct prepaid account yourself.

> Source: `tests/Zeyto.Tests/FixedAssetGoldenTests.cs`, `src/Zeyto.Edge/Domain/Depreciation.cs`, `src/Zeyto.Web/src/help/content/accounting-fixed-assets.ts`, `src/Zeyto.Web/src/help/content/accounting-ledger.ts`, `docs/operations/w5-yearend-2026-11-04.md`, `docs/operations/w29-journal-open-items-2026-11-06.md`

6. Period control: day end, locks, openings and year-end close

Zeyto has several independent guards that stop a posting when its date falls in a period you have closed. A posting must pass all of them.


Posting dated D
Open fiscal year covers D?
no
yes
Refused: PERIOD_CLOSED
D after Books locked up to date?
no
yes
Refused: books locked
Future date blocked and D after today?
yes
no
Refused: future date
VAT period of D filed, and doc carries VAT?
yes
no



The guards a posting passes. The guards are separate. A closed fiscal year, the Books locked date, the VAT filing lock and the bank reconciliation lock each work on their own, and each shows its own message. The day-end lock moves the Books locked date forward.

Day End

`Accounting ▸ Day End` closes one trading day. It posts nothing. It lists what is still open for the day (unposted drafts, open POS shifts, POS day close, field sales sessions still out, approvals waiting, cheques due and not cleared, negative stock, sales waiting for a purchase, backup age) and checks that debits equal credits. Items marked Must fix stop the close. Items marked Open are warnings you can confirm.

In the demo company on 13/11/2026 the checklist shows 3 items still open (Unposted draft documents, Cheques due and not cleared, Backup) and the others marked Done. The screen says you can close the day after confirming them. The buttons are refresh, print and `Close the day`.

1. **Open Day End.** It shows today. Pick an earlier date in Business day to catch up. The date cannot be in the future.
2. **Read the Checklist.** Press Open next to an item to deal with it, then `Refresh`.
3. **Check the figures.** Cash in Hand and Bank are ledger balances at the end of that day.
4. **Decide on the lock.** Tick **Lock the books up to this day** if nobody should change that day any more. The lock only moves forward.
5. Press **`Close the day`**. A user with the Day end - reopen permission can reopen it later, giving a reason. If the close had locked the books, the earlier lock date is given back.

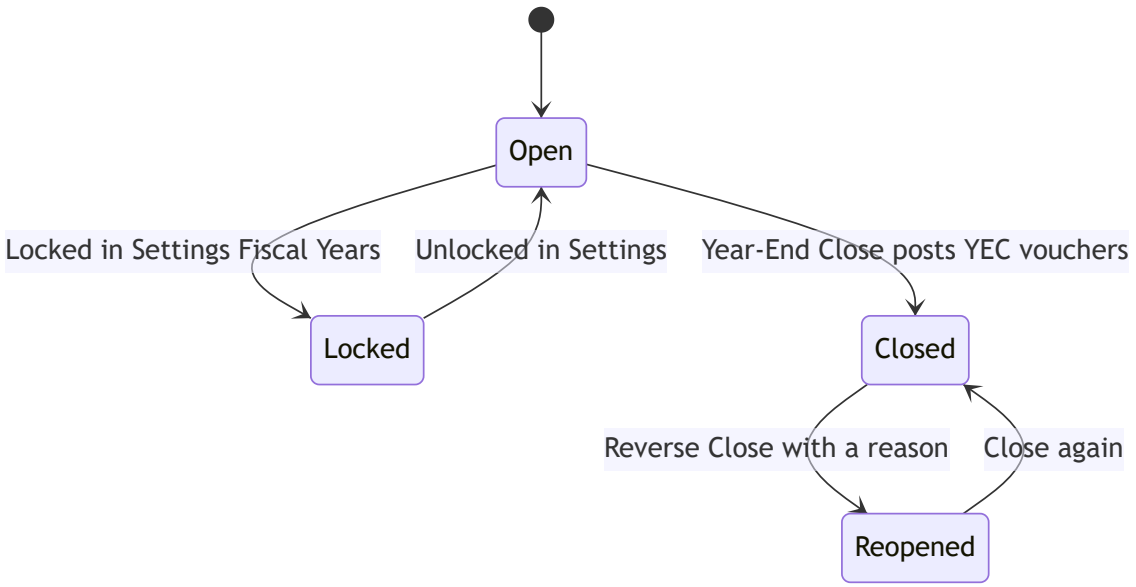
Posting Controls and Fiscal Years

- `Settings ▸ Posting Controls`: every rule starts off. Future-dated documents (Allow or Block). Books locked up to (inclusive): a date, empty means no lock. It is a soft close you control and is separate from Fiscal Years. There are also a compulsory LPO or TRN and a strict duplicate LPO check.
- `Settings ▸ Fiscal Years`: the year must be open for a posting to go in.

Opening balances

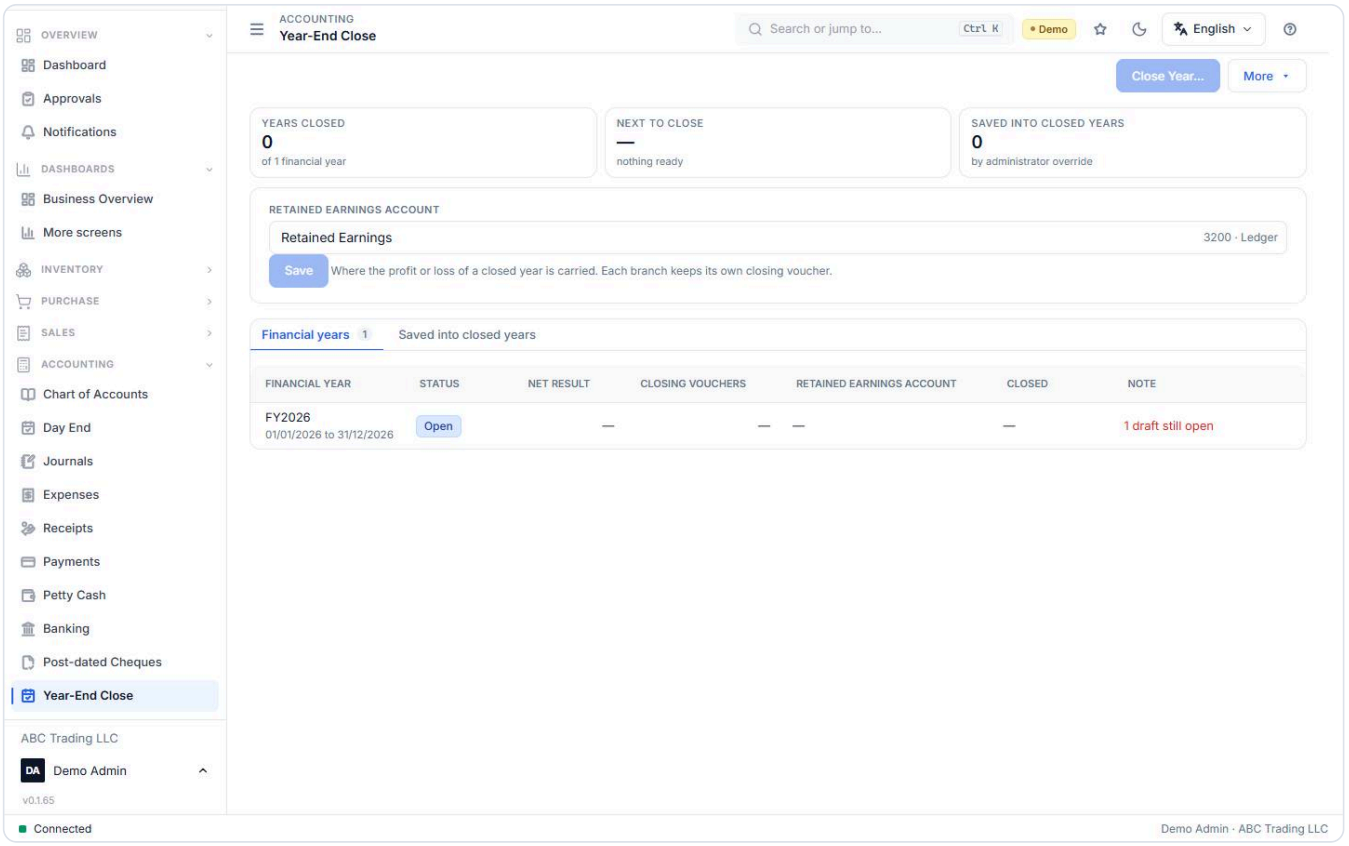
`Accounting ▸ Openings` has tabs for Accounts, Customer/Supplier bills and Stock. When the accounts you enter do not balance, the difference is parked on 3900 Opening Balance Suspense so the books still balance. You can Preview, Edit openings, or Cancel all openings. Clear 3900 to zero before you rely on the first balance sheet.

Year-end close



Fiscal year status. Status values on the Year-End Close list are Open, Closed, Locked and Reopened. Locked means locked in Settings without a close. A year can be closed only after the year before it is closed, and only if it is not merely Locked.

Open `Accounting ▸ Year-End Close`. The list shows each Financial Year with Status, Net Result, Closing Vouchers, Retained Earnings Account and a Note. Click the year to see exactly what will be posted. Closing posts one YEC voucher (Year-end Closing) for each branch, dated the last day of the year. Each voucher debits every income account and credits every expense account by what the year left on it, with the opposite leg on the retained earnings account (3200 by default, changed in the Retained earnings account picker and saved with Save).



Year-End Close. The tiles are Years Closed (0 of 1 financial year), Next to close (nothing ready) and Saved into closed years (0). Retained Earnings Account shows 3200 Ledger with a Save button. The list shows FY2026, 01/01/2026 to 31/12/2026, Status Open, and the note "1 draft still open". `Close Year...` is grey in this demo.

Not verified in code: why Close Year... is grey in the screenshot. The note says one draft is still open, the tile says nothing is ready, and the year has not ended yet on the demo date. The design note says open drafts do not block a close, so the draft may not be the reason.

ILLUSTRATIVE FIGURES

What a closing voucher looks like

One branch ends the year with sales 50,000.00, cost of goods sold 30,000.00 and rent 8,000.00. The profit is 12,000.00.

ACCOUNT	DR	CR
4000 Sales	50,000.00	
5000 Cost of Goods Sold		30,000.00
6200 Rent		8,000.00
3200 Retained Earnings		12,000.00
Total	**50,000.00**	**50,000.00**

The figures are made up. The structure is the rule from the year-end design note: income debited, expense credited, the difference to retained earnings. A loss would debit 3200 instead.

HOW REPORTS TREAT CLOSING VOUCHERS

Trial balance, balance sheet, general ledger and account statements include them. Profit and loss in all its variants, day books, cash flow, fund flow, corporate tax profit and dashboards leave them out. So a closed year still shows its income and expense, and the next year's profit and loss starts at zero.

- Closing locks the year. A posting, amendment or cancellation dated in it is refused with `PERIOD_CLOSED`.
- An administrator with the override permission can still post into a closed year by giving a reason of at least 5 characters. It is logged and listed on the second tab of Year-End Close.
- **Reverse Close** needs a reason. It cancels each YEC voucher and reopens the year. It is refused while a later year is closed.
- Nothing is copied into the next year. Opening balances roll because the balance sheet is built from the ledger up to the date, and that includes the YEC vouchers.
- Open drafts dated in the year are reported but do not block the close.

> Source: `src/Zeyto.Web/src/help/content/accounting-day-end.ts`, `src/Zeyto.Web/src/help/content/accounting-year-end.ts`, `src/Zeyto.Web/src/help/content/settings-company.ts`, `src/Zeyto.Edge/Domain/PostingEngine.YearEnd.cs`, `docs/operations/w5-yearend-2026-11-04.md`, `src/Zeyto.Edge/Domain/PostingEngine.cs`

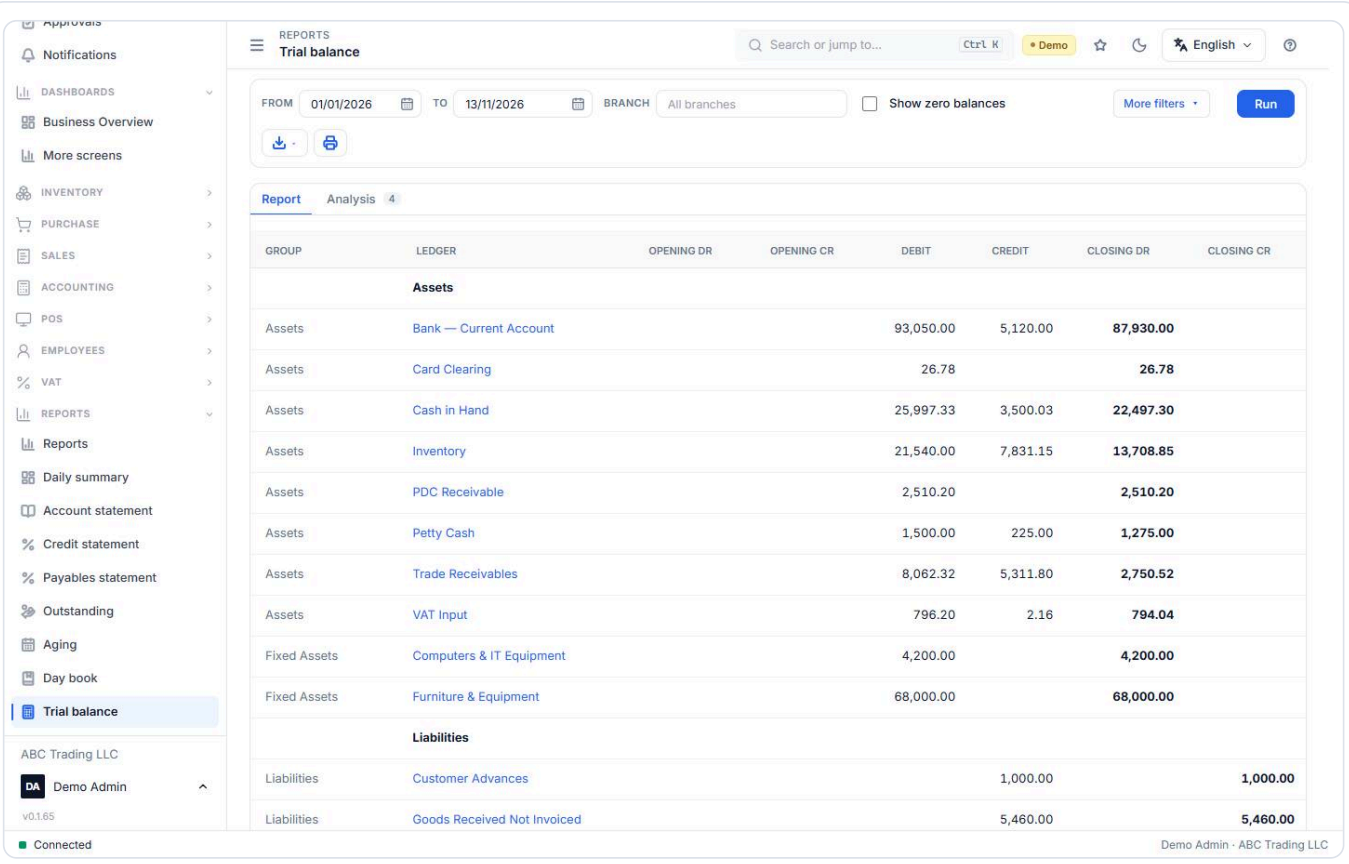
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7. Financial statements and how to verify them

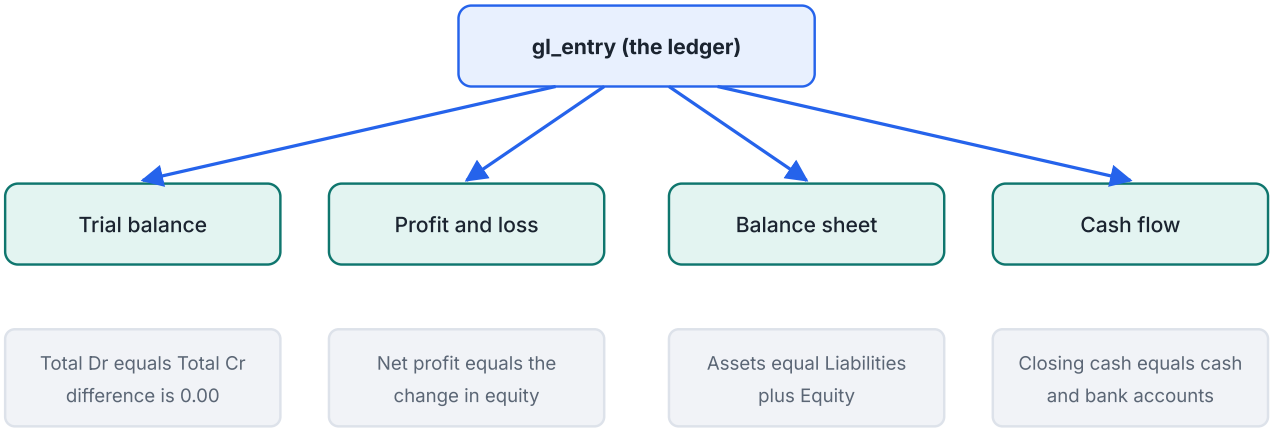
The statements are built only from the ledgers. Trial balance, profit and loss, balance sheet and cash flow are different views of the same gl_entry rows, so they have to agree. The menu places are under Reports, in the Fin package.

STATEMENT	MENU NAME	WHAT IT SHOWS
Trial balance	Trial balance	Every account's debit and credit total. Debits equal credits.
Income statement	Trading & profit and loss	Income less cost of sales less expenses. Excludes YEC vouchers.
Balance sheet	Balance sheet	Assets against liabilities and equity at a date. Includes YEC vouchers.
Cash flow	Cash flow	Operating, investing, financing. Ties to the movement of cash and bank accounts.
Fund flow	Fund flow	Sources and uses of funds.

Hidden routes reached from links inside the reports include Financial statements (tree view), Profit & loss (workbench), Yearly Statements, Monthly View, Profit by Dimension and Working Capital. In the Accounts package, Reports lists Account statement, Outstanding, Aging, Day book, Group-wise report, Cash & bank book, Over-received customers and Data health.



Trial balance. Filters are From 01/01/2026, To 13/11/2026, Branch, Show zero balances and More filters, then `Run`. The columns are Group, Ledger, Opening Dr, Opening Cr, Debit, Credit, Closing Dr and Closing Cr. Bank - Current Account closes at 87,930.00 and Cash in Hand at 22,497.30, matching the Chart of Accounts balances.



Four ties. Each statement has one test you can do by eye. If one fails, the others usually show where.

What Zeyto itself checked

The financial-statements verification of 04/11/2026 compared every statement with direct SQL on the ledger, about 302,000 checks with 0 disagreements. It found ten defects (F1 to F10), all fixed, and raised decisions D1 to D5. Year-end close (D1) is now built. Cash flow presentation of fixed assets (D3) is built: purchases show gross in investing, and disposal proceeds show as an inflow while the gain or loss is removed from operating. Reversal rows stored as negative values and costing postings at four decimals were left as open decisions in that document.

Not verified in code: the verification document still says year-end close is "not present". That sentence is out of date. The year-end design note (w5) records that D1 is built.

The verification routine

1. **Trial balance.** Open the Trial balance for the period. Total debit must equal total credit.
2. **Balance sheet.** Total assets must equal total liabilities plus equity. Retained earnings includes the current year's profit that is not yet closed.
3. **Profit and loss.** Net profit must equal the movement of retained earnings (and, after a year-end close, the YEC retained earnings credit of that year).
4. **Cash flow.** The closing cash must equal the balances of 1000, 1100 and other cash and bank accounts on the Balance sheet.
5. **Control accounts.** Compare 1200 with the total of Outstanding for customers, 2100 with Outstanding for suppliers, 1300 with the stock valuation, 2200 and 1400 with the VAT 201 return boxes.
6. **Run Data health.** Reports, Accounts package, Data health lists structural problems in the data.

> **TIP**
> When a number looks wrong, open the account in Account statement and read the narration of each row. Narrations start with the full document name, for example "Sales Invoice INV-00001", and amended documents show net by default.

> Source: `docs/operations/financial-statements-verification-2026-11-04.md`, `docs/operations/w5-yearend-2026-11-04.md`, `docs/operations/w55-statement-duplicates.md`, `src/Zeyto.Web/src/nav.ts`, `src/Zeyto.Edge/Api/DocTypeNames.cs`

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8. Check yourself and common mistakes

Check yourself

1. Post a 10 × 18.50 cash invoice with 5% VAT. Open the Day book. You should see Dr 1000 194.25, Cr 4000 185.00, Cr 2200 9.25, and the cost pair Dr 5000 / Cr 1300.
2. Receive 120.00 against two open invoices of 100.00 and 50.00. The older invoice shows paid and the newer shows 30.00 open in Outstanding.
3. Register a post-dated cheque, then Deposit it. The Trial balance did not change on the Deposit. Clear it and see 1210 fall and 1100 rise.
4. Run Depreciation Run for the same month twice. The second run must be refused with NOTHING_TO_DEPRECIATE and the Fixed Asset Register must still equal 1610 and 1690.
5. Try to post a document dated before the Books locked up to date. It must be refused.
6. Open the Trial balance and read the total difference. It must be 0.00.
7. On the Balance sheet, find 3900 Opening Balance Suspense. It should be 0.00 once your openings are complete.
8. Amend an invoice, then open Account statement for the customer. The invoice shows once, net, and "Show amendment history" lists the original, reversal and amendment rows.

Common mistakes

SYMPTOM	CAUSE	FIX
Cannot amend or cancel an invoice: `CHAIN_CHILDREN`	A receipt or a return is allocated to it.	Cancel the child document first, then amend or cancel the invoice.
Cannot amend a voucher: `BANK_RECONCILED`	Its bank line was marked cleared in Bank Recon.	Leave it. Post a correcting entry instead.
Posting fails with `ACCOUNT_MAP`	No account of the needed type exists. For example no VatOutput account.	Restore or add the account with the right type in the Chart of Accounts. Seeded accounts must not be retyped.
Journal refused with `UNBALANCED`	Debits do not equal credits. The engine never rounds to fit.	Correct the lines until the difference is 0.00.
Trial balance is fine but 3900 Opening Balance Suspense has a balance	The openings you entered did not balance.	Open Openings, find the missing side and edit it. The suspense account then returns to 0.00.
Depreciation run refused: `DEPRECIATION_GAP`	A month before it has not been posted.	Use Catch up, or post the missing month first.
Disposal refused	Depreciation is missing for earlier months, or a taxed disposal falls in a filed VAT period.	Post depreciation to the month before the disposal. For a filed VAT period, use a date in an open period.
A cheque cannot be deposited, cleared or bounced	The date you gave is before the voucher that registered the cheque.	Use a date on or after the registration date.
A closed year cannot take a new entry	The year has YEC vouchers and is locked.	An administrator can use the override with a reason, or you Reverse Close the year after any later year is reversed.
Profit and loss for a closed year shows income and expense but the trial balance shows zero	Trial balance includes the closing vouchers. Profit and loss leaves them out.	This is correct. Use Profit and loss for activity and Trial balance for balances.
Petty cash voucher blocked	It would take the float below zero (`PETTY_CASH_OVERDRAWN`).	Replenish the float first, or ask a user with the pettycash.override-float permission.

KNOWN GAPS IN THE PRODUCT TODAY

Bank Recon has no statement import and no field for the statement closing balance. Statement import (CSV and MT940) exists only on the Card Settlements Bank statements tab. In the RCM Register the Export XLSX and Audit Pack buttons do nothing, according to the product help. The Adjustment Journal screen shows the invoice date under the heading Due.

> Source: `src/Zeyto.Edge/Domain/PostingEngine.cs`, `src/Zeyto.Web/src/help/content/accounting-vouchers.ts`, `src/Zeyto.Web/src/help/content/accounting-journals.ts`, `src/Zeyto.Web/src/help/content/accounting-petty-cash.ts`, `tests/Zeyto.Tests/GoldenPostingTests.cs`, `tests/Zeyto.Tests/FixedAssetGoldenTests.cs`

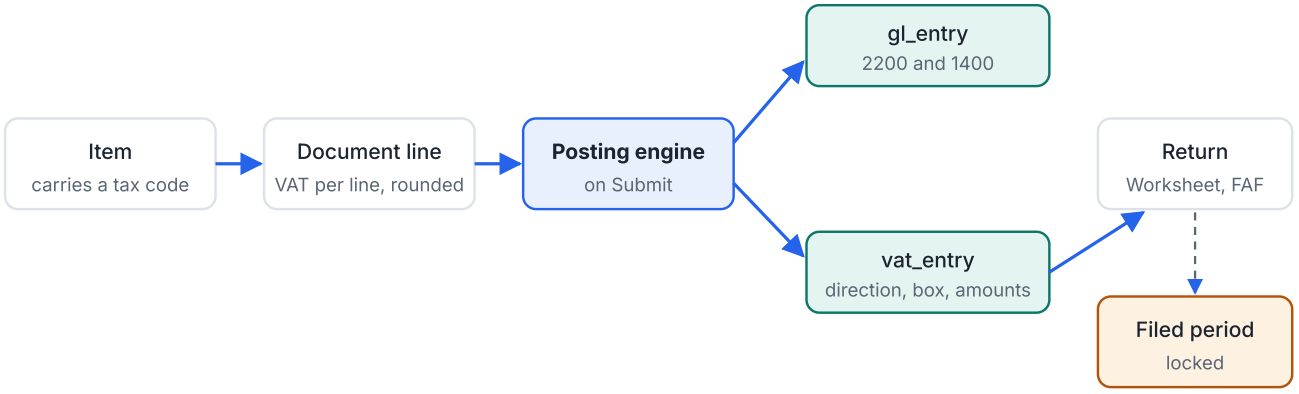
ACCOUNTING AND TAX

VAT and UAE compliance

After this chapter you can set up tax codes, predict the exact VAT on any line, trace every dirham of VAT from a document to the VAT 201 worksheet, handle advances and reverse charge, file and lock a period, and tell what Zeyto does and does not do for e-invoicing and corporate tax.

1. The big picture: tax codes, the VAT ledger and the return

Every item carries a tax code. The code goes onto each document line. When you submit the document, Zeyto works out the VAT per line, writes the accounting (VAT Output 2200 or VAT Input 1400) and writes one row per box into a separate ledger, `vat_entry`. The VAT return worksheet adds up that ledger and nothing else. So the return always agrees with the documents you posted, and you never type a VAT figure by hand.



VAT in one picture. The tax code decides the rate and the box. The posting engine writes both ledgers in the same transaction. The worksheet reads vat_entry. Filing locks the period.

The tax codes

Open `Settings ▸ Tax` (the page header reads Tax and the register is the Tax Code Register). Zeyto ships with the five treatments the UAE uses, plus one reverse-charge code for electronic devices added later.

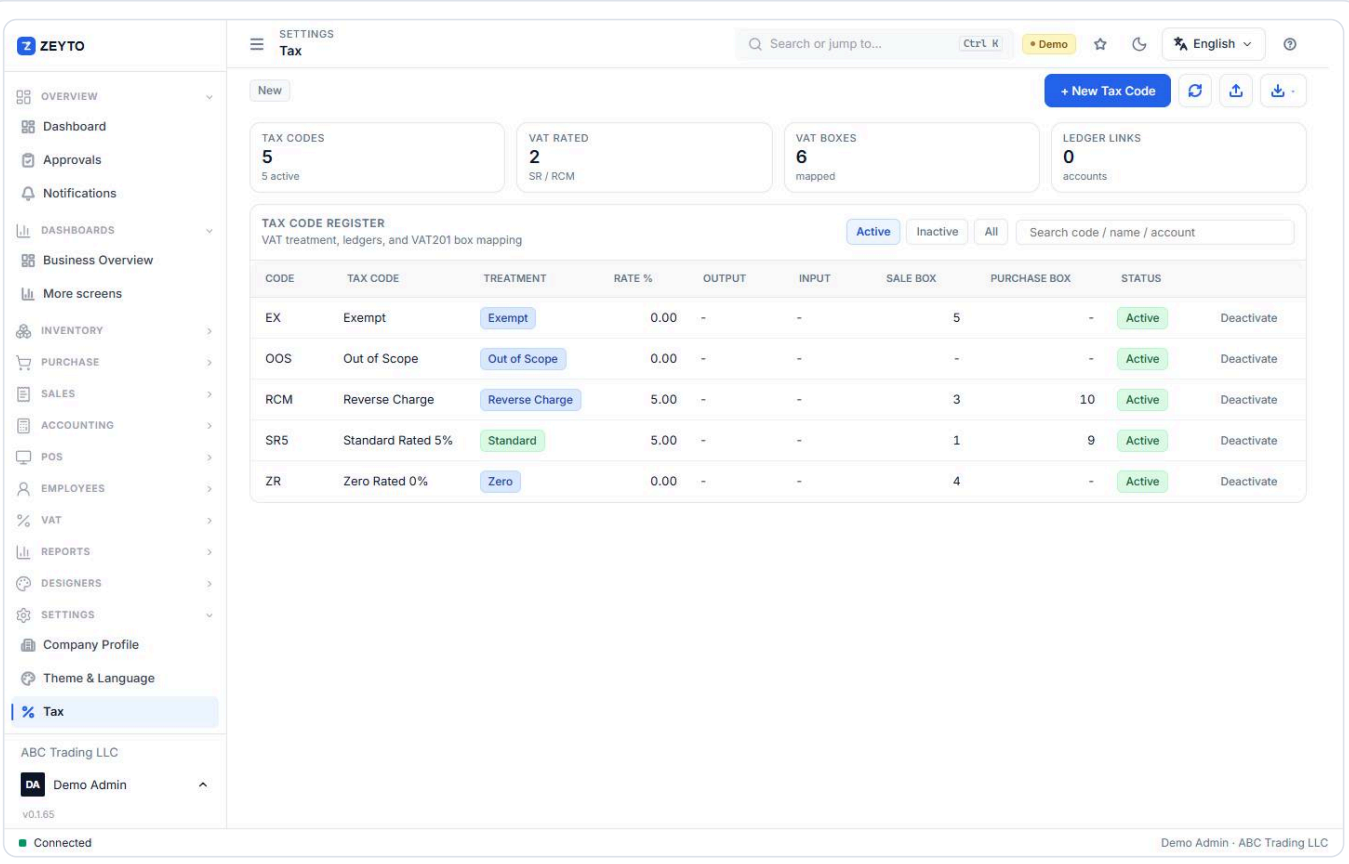
CODE	TREATMENT	RATE	SALE BOX	PURCHASE BOX	MEANING
SR5	Standard	5%	1	9	Standard-rated supplies and expenses
ZR	Zero	0%	4	none	Zero-rated supplies such as exports. Reportable, 0% VAT
EX	Exempt	0%	5	none	Exempt supplies. Not taxable
RCM	Reverse Charge	5%	3	10	The buyer accounts for the VAT. No VAT on the document face
OOS	Out of Scope	0%	none	none	Outside UAE VAT, no boxes

CODE	TREATMENT	RATE	SALE BOX	PURCHASE BOX	MEANING
RCM-ELEC	Reverse Charge	5%	3	10	Reverse Charge - Electronic Devices, added by migration 0031. The demo company has only the five codes above it

ZERO IS NOT EXEMPT

Both show 0.00 on an invoice, but they go to different boxes (4 and 5). A wrong choice files a wrong return. A line on a Reverse Charge code adds no VAT to the document total.

1. **Open the register.** Go to `Settings ▸ Tax`.
2. **Add a code only if you need one.** Press `+ New Tax Code`. Type the Code (it cannot change after saving).
3. **Choose the Treatment.** Zeyto fills Rate % and both VAT201 boxes with the usual values.
4. **Type the Name and check the boxes.** Press `Create`.
5. **Know the effect.** A change applies to documents you post afterwards. Posted documents keep the VAT they were posted with. An inactive code is no longer offered on items and lines.



Tax Code register. The demo company has five codes. Columns are Code, Tax Code, Treatment, Rate %, Output, Input, Sale Box, Purchase Box and Status. SR5 shows Sale Box 1 and Purchase Box 9, RCM shows 3 and 10, ZR shows Sale Box 4, EX shows Sale Box 5 and OOS has no boxes. The Output and Input columns are empty because no ledger link is set.

> **TIP**
>
> The Output Account and Input Account on a tax code are labels shown beside the code. They do not decide where VAT posts. VAT always posts to the account of type VatOutput (2200) or VatInput (1400).

Tax numbers and country variants

The company's country decides how a tax registration number is checked. Blank is always accepted at this level; whether a number is required is decided by the document.

COUNTRY	RULE ON THE TAX NUMBER
UAE (or country empty)	A TRN is exactly 15 digits.
Saudi Arabia	15 digits and it starts with 3.
Bahrain	Exactly 15 digits.
Oman	OM followed by 10 digits.
Any other country	Letters, digits, spaces, dots, slashes and dashes, 40 characters at most.

Only these number rules and the 3-decimal rounding for KWD, BHD and OMR are country variants in the code I read. The VAT return, FAF and boxes in this chapter are the UAE VAT 201.

> Source: `src/Zeyto.Web/src/help/content/settings-finance.ts`, `src/Zeyto.Edge/Data/migrations/0009-seed-core.sql`, `src/Zeyto.Edge/Data/migrations/0031-amortization-rcm.sql`, `src/Zeyto.Edge/Domain/TaxIdRules.cs`, `src/Zeyto.Edge/Domain/VatPoster.cs`

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2. Where VAT is calculated and rounded

Zeyto computes VAT per line, rounds each line half-up to the currency's decimals, and adds the rounded lines. The invoice VAT is the sum of the rounded line VAT, never a new rounding of the total. This follows the product's money rule: decimals only, half-up (away from zero), 2 decimals for AED and 3 for KWD, BHD and OMR.

1. **Line net.** Quantity times rate, less the line discount, less the line's prorated share of any document discount. Nothing is rounded yet.
2. **Line VAT.** The unrounded net times the code's rate, then rounded half-up.
3. **Line total.** Net plus VAT.
4. **Invoice total.** The sum of the rounded lines. An optional invoice rounding of up to 0.05 posts to Rounding Difference 4920.
5. **Foreign currency.** The document is converted to AED once, at its exchange rate, when it is posted.

REAL EXAMPLE

A cash invoice with two lines (golden test GS_INV_01)

Line 1: 10 units at 18.50. Line 2: 3 units at 15.00. Both SR5.

LINE	NET	VAT 5%	LINE TOTAL
10 × 18.50	185.00	9.25	194.25
3 × 15.00	45.00	2.25	47.25
Invoice	**230.00**	**11.50**	**241.50**

ACCOUNT	DR	CR
1000 Cash in Hand	241.50	
4000 Sales		230.00
2200 VAT Output		11.50
5000 Cost of Goods Sold	124.00	
1300 Inventory		124.00
Total	**365.50**	**365.50**

The vat_entry row is OUTPUT, taxable 230.00, VAT 11.50, box 1. The cost pair is 10 × 10.00 + 3 × 8.00 = 124.00 from the stock layers, and it carries no VAT.

REAL EXAMPLE

Per-line rounding differs from rounding the total (golden test GS_VAT_01)

Three lines of 1 × 0.33, each SR5. Each line VAT is 0.33 × 5% = 0.0165, which rounds to 0.02. The line total is 0.35.

ACCOUNT	DR	CR
1000 Cash in Hand	1.05	
4000 Sales		0.99
2200 VAT Output		0.06
Total	**1.05**	**1.05**

The invoice VAT is 0.06 (three times 0.02) and the grand total is 1.05. Rounding the total once, 0.99 × 5% = 0.0495, would give 0.05 and a total of 1.04. Zeyto never does that. Your VAT 201 shows 0.06 and the ledger matches it to the fils.

REAL EXAMPLE

Half-up on exactly half a fils (golden test GS_INV_04)

A cash sale of 5 × 18.50 = 92.50 net. VAT is 92.50 × 5% = 4.625. Half-up rounding gives 4.63, so the gross is 97.13. Cancelling the invoice adds five reversing rows that bring every account back to a net of zero. The document number stays.

Discount before tax and after tax

A discount before tax reduces the net on which VAT is worked out. A discount after tax is taken off the final VAT-inclusive total, and the document is recomputed so both the taxable value and the VAT shrink. There is no discount ledger leg.

REAL EXAMPLE

A 50.00 discount after tax (test DiscountAfterTaxTests)

A bill of 1,000.00 plus 5% VAT is 1,050.00. A discount of 50.00 after tax makes the payable exactly 1,000.00 including VAT. Taxable is 1,000 / 1.05 = 952.38 and VAT is 47.62.

ACCOUNT	DR	CR
1200 Trade Receivables	1,000.00	
4000 Sales		952.38
2200 VAT Output		47.62
Total	**1,000.00**	**1,000.00**

The VAT is 47.62, not 50.00 and not 52.38. Another test mixes three lines of 100.00 at 5%, zero-rated and exempt (pre-discount total 305.00). A discount of 30.50 takes each line to 90.00. Only the first line carries VAT, 4.50, and the grand total is 274.50. The VAT 201 shows box 1 as taxable 90.00 and VAT 4.50.

OPTIONAL INVOICE ROUNDING

You can round an invoice total to the nearest 0.05. The difference posts to Rounding Difference (4920) and is not VAT. Line VAT is never altered to fit.

> Source: `src/Zeyto.Edge/Domain/MoneyMath.cs`, `src/Zeyto.Edge/Domain/AfterTaxDiscount.cs`, `src/Zeyto.Edge/Domain/GlMapper.cs`, `tests/Zeyto.Tests/GoldenPostingTests.cs`, `tests/Zeyto.Tests/DiscountAfterTaxTests.cs`

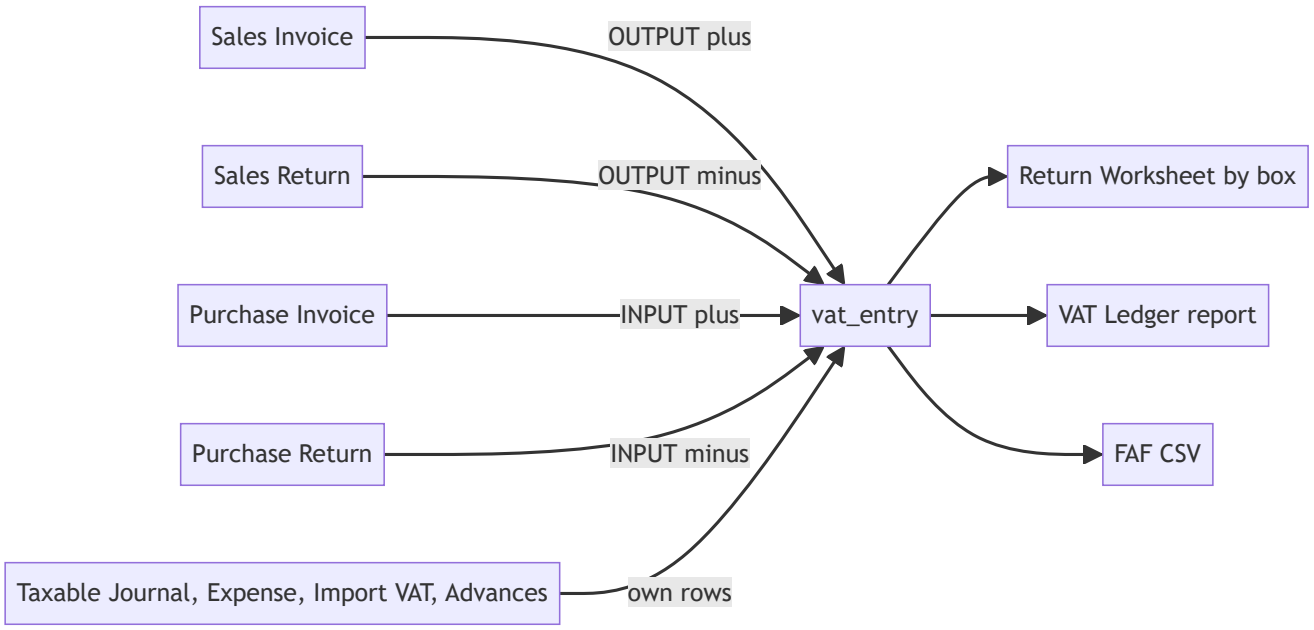
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3. The vat_entry ledger: input, output, credit notes and amendments

The VAT ledger has one row for each document, direction, box and tax code. Each row holds the taxable value, the VAT, the box, the party, the tax code and the emirate. It is append-only, like the other ledgers.

DOCUMENT	DIRECTION	SIGN	NOTE
Sales Invoice (SI), POS Sale	OUTPUT	+1	Box from the tax code's sale box

DOCUMENT	DIRECTION	SIGN	NOTE
Sales Return (SR, the credit note)	OUTPUT	-1	Reduces box 1 and the VAT you owe
Purchase Invoice (PI)	INPUT	+1	Box from the tax code's purchase box
Purchase Return (PR, the debit note)	INPUT	-1	Reduces the VAT you can claim
Advances, taxable journals, expenses with VAT, import VAT, asset purchases	either	own rows	These documents add their own vat_entry rows
Goods Receipt, Delivery Note, Receipt Voucher, Payment Voucher, plain journals	none		No VAT row



Sources and readers. Everything that touches the return lands in vat_entry first. The worksheet, the VAT Ledger report and the FAF all read the same rows.

Rules the ledger follows

- **No tax code, no row.** A line with no tax code is not posted to vat_entry. The worksheet shows a red banner naming the lines, and filing is blocked until each one has a code.
- **The emirate is frozen at post.** It is the customer's or supplier's emirate, or the company's when the party has none. A later change to the party does not move filed figures.
- **Amounts are in AED** (base currency), even for foreign-currency documents.
- **Only posted documents count.** Drafts have no entries.
- **The period is the document date,** not the day you typed it.

Credit notes

A Sales Return posts the mirror of the invoice: Dr Sales Returns, Dr VAT Output, Cr Receivable, linked to the invoice by `against_doc_id`. In vat_entry it is OUTPUT with negative taxable and VAT, so box 1 falls. The printed title is "TAX CREDIT NOTE" and the document names the invoice it reverses. A Purchase Return reverses input VAT the same way.

Amendments and cancellations

Amending or cancelling a document with VAT reverses its vat_entry rows with the opposite signs, then reposts for an amend. On the VAT Ledger and the FAF you see both sets. They add up to zero, so the totals stay right. The document number gets /A1, /A2 and so on after an amend.

> **FILED MEANS LOCKED**
>
> You cannot submit, amend or cancel a VAT document dated in a filed period. Zeyto answers `PERIOD_FILED`. Date the correction in an open period.

The reports that read vat_entry

REPORT	WHERE	USE IT TO
VAT Return (VAT 201)	Reports (Accounts package), "VAT return (201)"	See one month by box: output, input and net payable, with a FILED marker.
VAT Ledger	Reports (VAT)	Every VAT entry with party, TRN, box, tax code, taxable, VAT and a Return column that reads OPEN or FILED.
Box Summary	Reports (VAT)	Totals by box.
Tax report	Reports, Tax report	Output or Input, by bill or by product, with a Reverse charge column. Filters are From, To, Tax and Voucher type.

Not verified in code: the menu position of the VAT Ledger and Box Summary reports. The help describes the VAT Return (VAT 201) report as one calendar month, while the Return Worksheet also offers quarters. Use the Return Worksheet for quarterly filers.

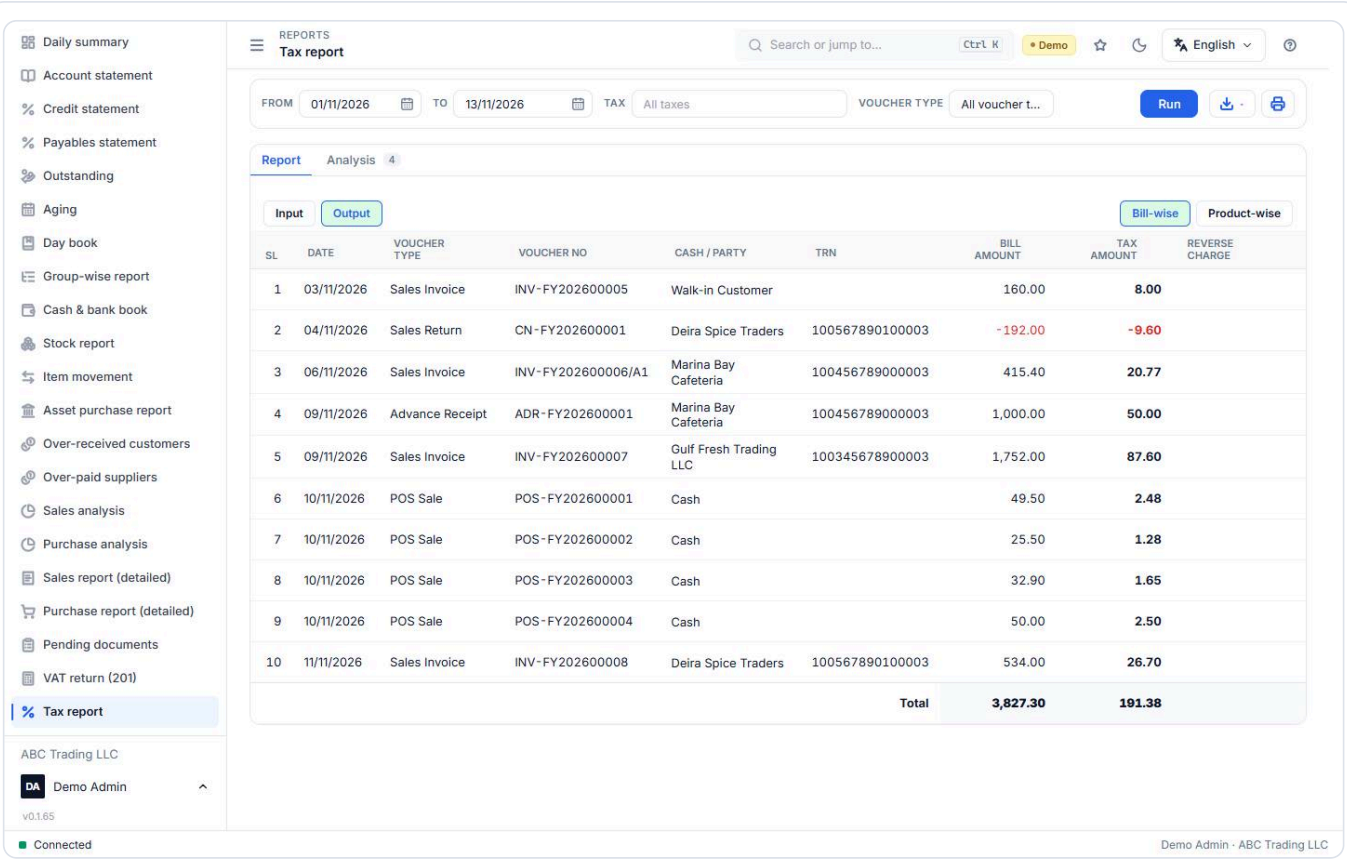
REAL EXAMPLE

Output VAT for November 2026 in the demo company

The Tax report with Output selected, from 01/11/2026 to 13/11/2026, lists ten documents. Each Bill Amount is the value before VAT and each Tax Amount is the VAT on it:

DOCUMENT	PARTY	BILL AMOUNT	TAX AMOUNT
INV-FY202600005	Walk-in Customer	160.00	8.00
CN-FY202600001 (Sales Return)	Deira Spice Traders	-192.00	-9.60
INV-FY202600006/A1 (amended)	Marina Bay Cafeteria	415.40	20.77
ADR-FY202600001 (Advance Receipt)	Marina Bay Cafeteria	1,000.00	50.00
INV-FY202600007	Gulf Fresh Trading LLC	1,752.00	87.60
POS-FY202600001 to 004 (four POS sales)	Cash	157.90	7.91
INV-FY202600008	Deira Spice Traders	534.00	26.70
Total		**3,827.30**	**191.38**

The four POS sales are 49.50 + 25.50 + 32.90 + 50.00 = 157.90 net and 2.48 + 1.28 + 1.65 + 2.50 = 7.91 VAT. The sales return reduces the totals, the advance is counted when the money came in, and the amended invoice appears once with the figures after the amendment. The Return Worksheet for the same month shows the same 3,827.30 and 191.38 in box 1.

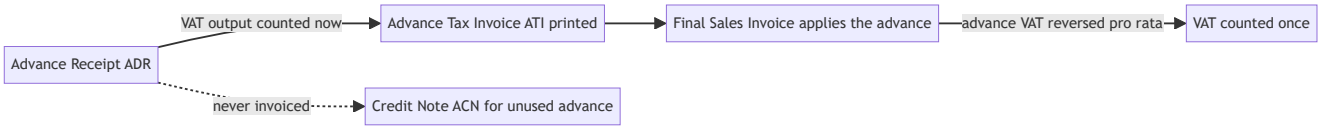


Tax report, Output. The Input and Output buttons switch side, and Bill-wise and Product-wise switch the grouping. The total row reads 3,827.30 and 191.38.

> Source: `src/Zeyto.Edge/Domain/VatPoster.cs`, `src/Zeyto.Edge/Domain/GlMapper.cs`, `src/Zeyto.Edge/Data/migrations/0060-vat-entry-emirate.sql`, `src/Zeyto.Web/src/help/content/reports-catalog-vat-payroll-masters.ts`, `src/Zeyto.Web/src/help/content/reports-books.ts`, `src/Zeyto.Edge/Printing/DocProfiles.cs`

4. VAT on advances and advance tax invoices

Under UAE VAT the tax on a prepayment is due when you receive the money, not when you later issue the final invoice. Zeyto does this in three steps: the advance posts its VAT right away, an advance tax invoice is printed for the customer, and the final invoice reverses the advance VAT so the tax is counted once.



Advance life. ATI and ATP are paper documents that post nothing. ADR and ADP post the money and the VAT. ACN and ADN are the posting credit and debit notes for an unused advance.

DOCUMENT	PREFIX	POSTS?	WHAT IT IS
Advance Receipt	ADR-	Posts	Money received from a customer before the invoice
Advance Payment	ADP-	Posts	Money paid to a supplier before the bill
Tax Invoice (Advance)	ATI	Paper	The tax invoice the customer holds for the advance. Shown under Sales as Advance Tax Invoices

DOCUMENT	PREFIX	POSTS?	WHAT IT IS
Tax Invoice (Advance Purchase)	ATP	Paper	Your record of the supplier's tax invoice for an advance you paid
Credit Note (Advance Received)	ACN	Posts	Reverses an advance that was never used
Debit Note (Advance Paid)	ADN	Posts	Reverses an advance paid and not used

The split of the advance is fixed: VAT = round(gross x rate / (100 + rate)), net = gross - VAT. For 5%, a 105.00 advance holds 5.00 of VAT and 100.00 net.

REAL EXAMPLE

Advance of 105.00 on both sides (golden tests GS_ADV_01 and GS_ADV_02)

ADR-00001 receives 105.00 cash from a customer. ADP-00001 pays 105.00 to a supplier. SR5, 5%.

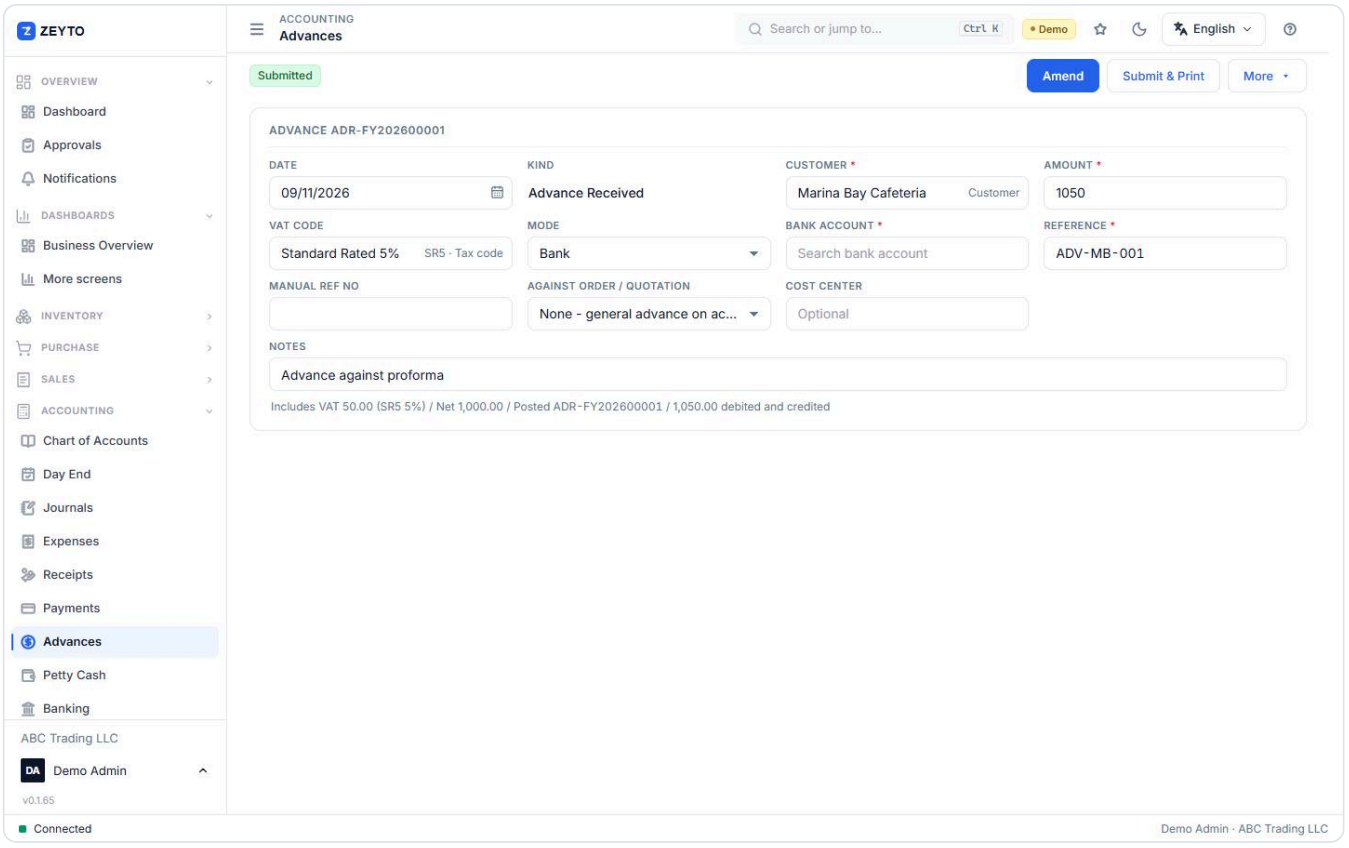
DOCUMENT	ACCOUNT	DR	CR
ADR-00001	1000 Cash in Hand	105.00	
ADR-00001	2300 Customer Advances		100.00
ADR-00001	2200 VAT Output		5.00
ADP-00001	1450 Supplier Advances	100.00	
ADP-00001	1400 VAT Input	5.00	
ADP-00001	**1000 Cash in Hand**		**105.00**

vat_entry: ADR is OUTPUT with taxable 100.00, VAT 5.00, box 1. ADP is INPUT with taxable 100.00, VAT 5.00, box 9.

REAL EXAMPLE

An advance in the demo company (ADR-FY202600001)

On 09/11/2026 Marina Bay Cafeteria paid 1,050.00 by bank against a proforma, reference ADV-MB-001. The advance form shows the split under the fields: "Includes VAT 50.00 (SR5 5%) / Net 1,000.00 / Posted ADR-FY202600001 / 1,050.00 debited and credited". The Tax report shows the same advance as 1,000.00 taxable and 50.00 VAT in November.



Advance Receipt. The form has Date, Kind (Advance Received), Customer, Amount, VAT Code, Mode, Bank Account, Reference, Manual Ref No, Against Order / Quotation, Cost Center and Notes. A submitted advance offers Amend and Submit & Print.

REAL EXAMPLE

The final invoice applies the advance (documented golden W24_01)

A customer paid an advance of 1,050.00 (VAT 50.00, net 1,000.00). The final invoice is 5,250.00 (taxable 5,000.00, VAT 250.00). The customer owes the rest, 4,200.00. The invoice posts:

ACCOUNT	DR	CR
1200 Trade Receivables	4,200.00	
2300 Customer Advances	1,000.00	
2200 VAT Output (advance VAT reversed)	50.00	
4000 Sales		5,000.00
2200 VAT Output (invoice VAT)		250.00
Total	**5,250.00**	**5,250.00**

Together with the 50.00 credited to 2200 when the advance arrived, the VAT Output balance is 250.00, the VAT on the sale. Box 1 for the period shows taxable 5,000.00 and VAT 250.00. Without the pro-rata reversal the 50.00 would be counted twice. The printed invoice carries a line "Less: Advance Tax Invoice nos." naming the advance documents.

Not verified in code: the exact vat_entry rows the invoice writes for the reversal. The documented result is box 1 equal to 5,000.00 taxable and 250.00 VAT for the period, as stated in the w24 document.

1. **Take the money.** Go to `Accounting ▸ Vouchers ▸ Advances` and press `Post Advance`. The tax code on the advance sets the VAT.
2. **Give the customer the tax invoice.** Open `Sales ▸ Advance Tax Invoices` and print the Tax Invoice (Advance). The number caption reads Tax Invoice No when VAT was charged and Receipt No when it was not.
3. **Raise the final invoice.** In the Sales Invoice, apply the advance. The advance is taken off the amount due.
4. **Check the VAT.** In the VAT Ledger, the advance and the invoice show with the VAT counted once in box 1.

> Source: `docs/operations/w24-advance-tax-invoice-2026-11-06.md`, `src/Zeyto.Edge/Domain/AdvanceVat.cs`, `src/Zeyto.Edge/Domain/GlMapper.cs`, `src/Zeyto.Edge/Api/AdvanceTaxDocsApi.cs`, `src/Zeyto.Edge/Data/migrations/0123-advance-tax-documents.sql`, `tests/Zeyto.Tests/GoldenPostingTests.cs`, `src/Zeyto.Edge/Printing/DocProfiles.cs`

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5. Reverse charge and import VAT

Under reverse charge the buyer, not the supplier, accounts for the VAT. The supplier's bill shows no VAT. You declare the tax once as output (box 3) and once as input (box 10), so the two cancel out in the return when you can claim all of it.

Reverse-charge voucher

Go to `Purchase ▸ RCM Self-Accounting` and press `+ New`. It opens the Taxable Journal Voucher on the Voucher Type "Reverse charge (RCM)". You fill one line: the Account for the cost, the supplier in Party / TRN, the Tax Code (RCM if empty), the Taxable Base and the same amount in Debit. Then type the Supplier Invoice No and Supplier Invoice Date and press `Post`. Zeyto builds four entries and two VAT lines.

ILLUSTRATIVE FIGURES

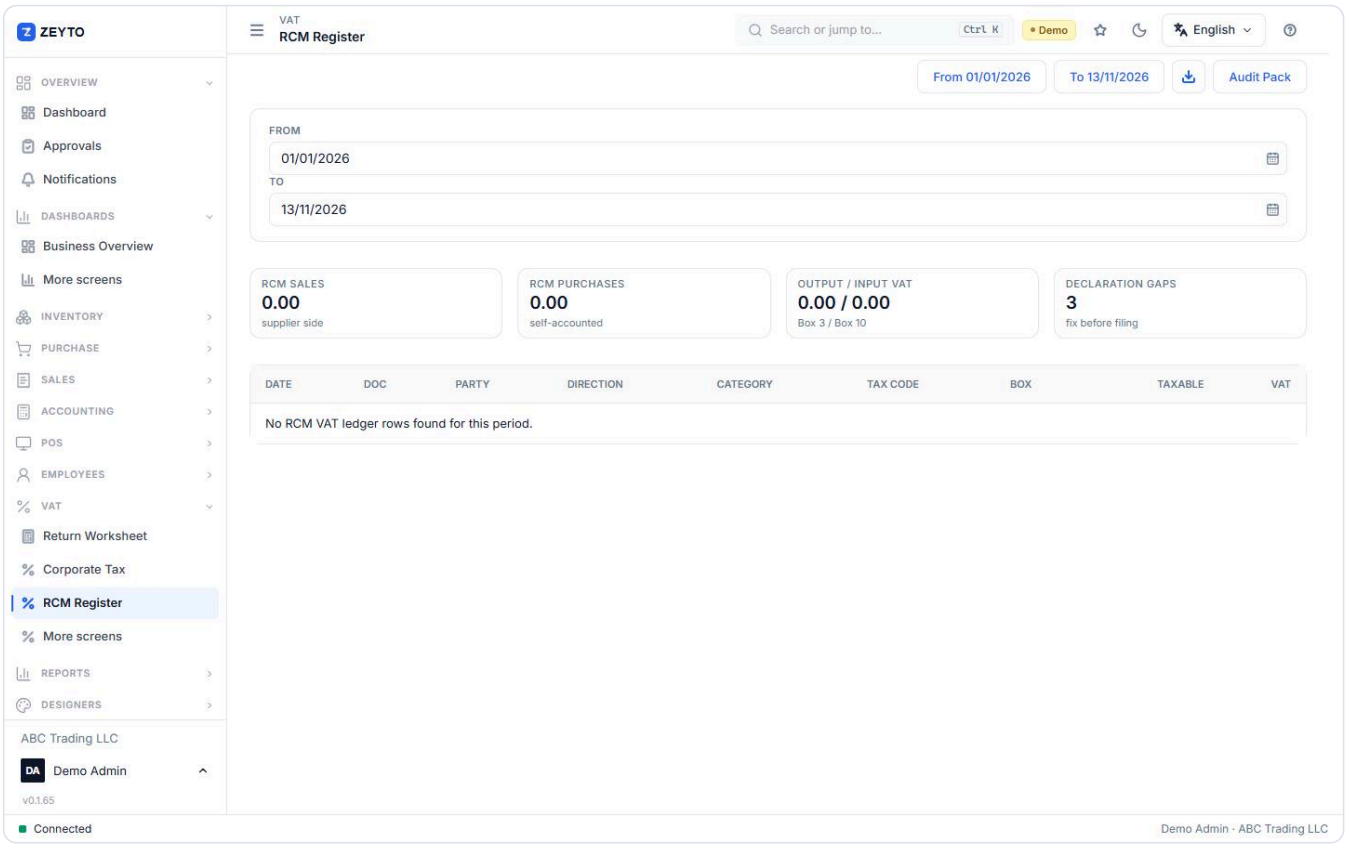
Reverse-charge purchase of 1,000.00

You buy a service worth 1,000.00 before VAT from an overseas supplier. The code is RCM at 5%, so the VAT is 50.00. The posting follows the four entries in the product help.

ACCOUNT	DR	CR
Expense account you chose (Taxable Base)	1,000.00	
1400 VAT Input	50.00	
2200 VAT Output		50.00
2100 Trade Payables (the supplier)		1,000.00
Total	**1,050.00**	**1,050.00**

You owe the supplier 1,000.00, not 1,050.00. vat_entry gets an INPUT row (box 10) and an OUTPUT row (box 3), both with taxable 1,000.00 and VAT 50.00. Net VAT payable does not change.

- To correct a posted voucher, press Cancel Voucher and enter it again. Do not use Amend: it reloads the four generated entries.
- Reverse Charge Categories in `Settings ▸ RCM Categories` decide when a line switches to the RCM code. The sales side also has RCM Declarations, RCM Mixed Invoice and RCM Guardrails under Sales.
- VAT ▸ RCM Register lists every reverse-charge VAT ledger line with Date, Doc, Party, Direction, Category, Tax Code, Box, Taxable and VAT. It is not the return.



RCM Register. Tiles show RCM Sales, RCM Purchases, Output / Input VAT (Box 3 / Box 10) and Declaration Gaps (3, "fix before filing"). The demo has no reverse-charge purchase, so the table says "No RCM VAT ledger rows found for this period". The From and To buttons, the download icon and Audit Pack sit at the top right; the product help says they do nothing today.

> **DOC AND CODE DO NOT AGREE ON PURCHASE INVOICES**
>
> The product help for RCM Self-Accounting says a Purchase Invoice with a reverse-charge line records the value with no VAT and does not declare the VAT. The posting map in the code does self-assess for a Purchase Invoice with reverse-charge lines (Dr VAT Input, Cr VAT Output, equal and opposite). Until the help is corrected, use the RCM voucher as the documented path and check the VAT Ledger after posting.

Import VAT (Box 6 and Box 7)

Customs charges VAT when you import goods and the FTA pre-fills box 6 from the declarations under your TRN. `VAT ▸ Import VAT (Box 6/7)` (also a button on the worksheet) records each declaration so your worksheet can be compared with the FTA's.

1. **Open the screen.** Go to `VAT ▸ Import VAT (Box 6/7)`.
2. **Type the declaration.** Customs declaration no., Declaration date, Port of entry and Supplier

(the last three optional).

3. **Type the amounts.** Customs value and Import VAT exactly as on the declaration. Zeyto records the VAT as declared and never recalculates it.

4. **Set the Posting date.** It decides the VAT period. Empty means today.

5. Press `Record import VAT`. A journal voucher posts: Dr VAT Input and Cr VAT Output for the same VAT. Output goes to box 6 for a new import, box 7 for an adjustment. Input goes to box 10.

The goods themselves are not posted here. Enter the supplier's invoice as a purchase invoice so stock and payables are not booked twice. To correct a declared import, set Adjustment (Box 7) to Yes and give the declaration number or a note. A downward correction cannot be recorded; amend or cancel the original voucher in an open period instead. Posting needs the accounting.create permission.

> Source: `src/Zeyto.Web/src/help/content/pos-vat-designers.ts`, `src/Zeyto.Web/src/help/content/purchase.ts`, `src/Zeyto.Edge/Domain/GlMapper.cs`, `src/Zeyto.Edge/Api/VatApi.cs`, `src/Zeyto.Edge/Data/migrations/0070-vat-tax-period-and-import-vat.sql`

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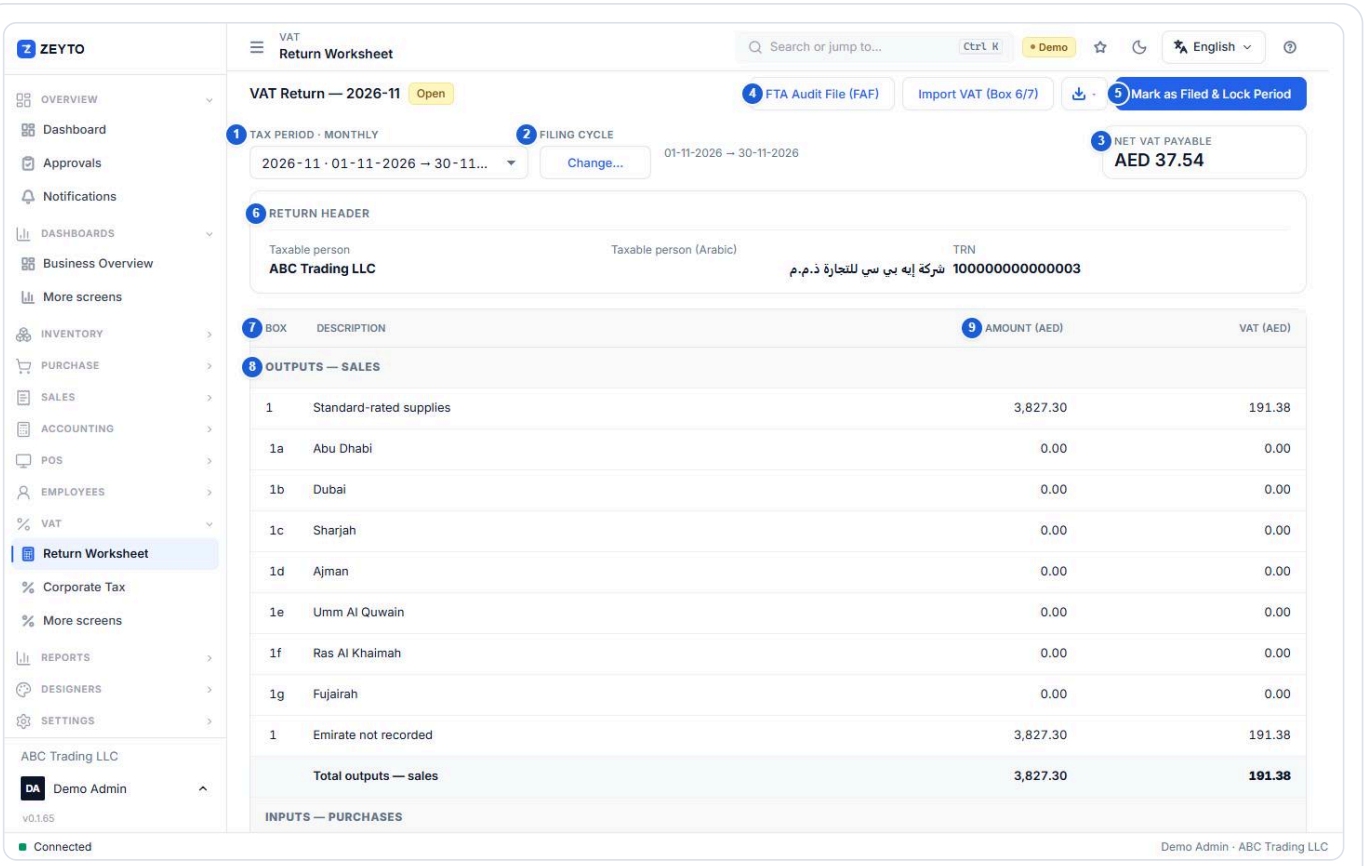
6. The VAT 201 worksheet, filing and the FAF

`VAT ▸ Return Worksheet` lays out your VAT for one tax period in the boxes of the FTA VAT 201 form. It is a worksheet and not the return. Zeyto sends nothing to the FTA. You file on the FTA portal with these figures, then you lock the period in Zeyto.

BOX	WHAT IT HOLDS	COMES FROM
1 (1a to 1g)	Standard-rated sales, split by emirate, plus a line "Emirate not recorded"	SR5 sales, emirate frozen at post
3	Reverse-charge supplies and the VAT you self-assess	RCM sales and RCM purchases
4	Zero-rated supplies	ZR
5	Exempt supplies	EX
6	Goods imported into the UAE	Import VAT
7	Adjustments to goods imported	Import VAT with Adjustment yes
9	Standard-rated expenses, the VAT you can claim	SR5 purchases
10	Reverse-charge expenses and import VAT you claim	RCM and import VAT

Only boxes with entries are listed. Net VAT Payable is outputs less inputs. A negative figure means you paid more VAT than you charged. The FTA's own total boxes are not shown.

Above the table, the Return header shows the taxable person, TRN, address, tax agency with its TAN and tax agent with their TAAN. Fill them in under `Settings ▸ Company Profile ▸ VAT Return Identity`. Blank fields show your company name and address. The demo shows the taxable person in English and Arabic and the TRN.



Return Worksheet. The sidebar has Return Worksheet, Corporate Tax, RCM Register and More screens under VAT. The status chip beside the title reads Open.

1. TAX PERIOD, MONTHLY: the period you are looking at. 2026-11 runs 01/11/2026 to 30/11/2026.
2. FILING CYCLE (Change...): opens the box where you choose Monthly or Quarterly.
3. NET VAT PAYABLE: outputs less inputs for the period, AED 37.54 here.
4. FTA Audit File (FAF): opens FAF Export for the same period.
5. Mark as Filed & Lock Period: records the filing and locks the period.
6. RETURN HEADER: the taxable person and the TRN printed on the return.
7. BOX column: the VAT 201 box numbers.
8. OUTPUTS, SALES: the VAT you charged. Box 1 is split into 1a to 1g by emirate, plus a line Emirate not recorded.
9. AMOUNT (AED) and VAT (AED): the value and the VAT in each box. Box 1 shows 3,827.30 and 191.38.

REAL EXAMPLE

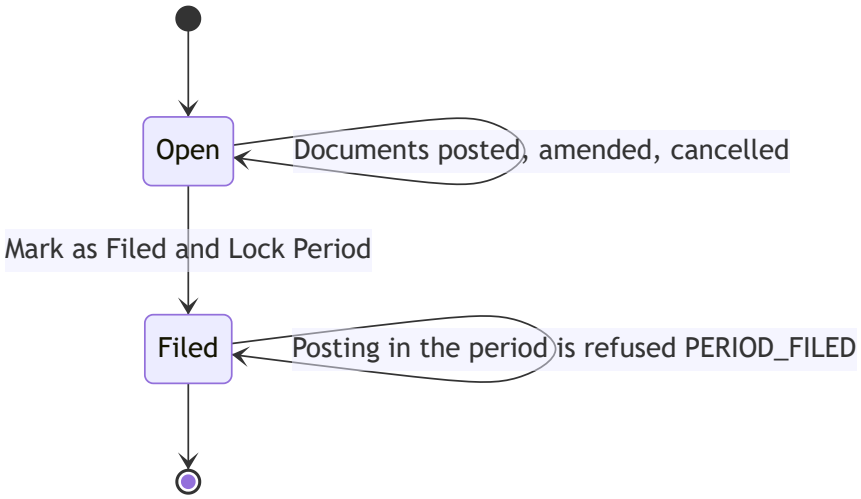
November 2026 in the demo company

Box 1 Standard-rated supplies shows Amount 3,827.30 and VAT 191.38, the same totals as the Tax report above. Total outputs, sales is 191.38 and Net VAT Payable is AED 37.54. In the demo all of box 1 sits on the line Emirate not recorded (3,827.30 and 191.38), and the lines 1a to 1g show 0.00, although the customers' printed addresses say Dubai.

Not verified in code: why the demo shows no emirate on box 1. The help says Zeyto takes the emirate from the customer record or the Company Profile when the document is posted. The printed address text is not the same field as the emirate code.

Monthly or quarterly

Periods are YYYY-MM or YYYY-Qn. Press Change next to Filing cycle to choose Monthly or Quarterly. For Quarterly, pick the Quarter stagger printed on your VAT registration certificate: a quarter can end in January, February or March and every third month after. Press `Save filing cycle`. The cycle belongs to the company and changes it for every user.



VAT period status. There is no unfile button and no override. A quarter locks as three whole months: filing a quarter writes three monthly vat_return rows, each FILED.

ILLUSTRATIVE FIGURES

What one cash invoice does to the worksheet

The invoice from section 2 (golden test GS_INV_01: 10 × 18.50 and 3 × 15.00, SR5) is the only sale in the month. Box 1 shows taxable 230.00 and VAT 11.50 under the emirate of the customer or the company. Net VAT Payable is 11.50. If you then post a purchase of 100.00 plus 5.00 VAT on SR5, box 9 shows taxable 100.00 and VAT 5.00, and Net VAT Payable falls to 6.50.

The VAT 11.50 equals the credit balance movement of 2200, and the 5.00 equals the debit movement of 1400. That is your proof that the return and the ledger agree.

1. **Choose the period.** In Tax period. Filed periods say "filed".
2. **Read the boxes.** Outputs - Sales, Inputs - Purchases, then Net VAT Payable.
3. **Look behind a box.** Open the Export menu and choose Detail XLSX or Detail PDF. Every VAT line is listed with document, party, box and tax code. The rows of the table do not open when clicked.
4. **Clear the red banner.** If lines have no VAT tax code, the banner names up to three (for example SI-00012 line 3). Open each document, press Amend, give the line a code and submit again. While the banner shows, filing is disabled.
5. **File on the FTA portal first.** Use the figures on this screen.
6. **Lock the period.** Press `Mark as Filed & Lock Period` and confirm in the box. The status changes from Open to Filed. This needs the vat.export permission.

What the lock covers

BLOCKED IN A FILED PERIOD	NOT BLOCKED
Sales invoices, POS receipts, credit notes	Receipt vouchers and payment vouchers
Purchase invoices and returns	Delivery notes
Advance receipts and payments, asset purchases	Plain journals with no VAT
Journals, expenses and bank entries that carry a VAT code	Documents dated in other periods

NO UNDO

The product has no way to unfile a period, and the help says the banner after filing mentions an administrator override that does not exist. Correct a filed return with an entry dated in an open period and ask your accountant how to amend the return itself.

FAF Export

`VAT ▸ FAF Export` (opened from the FTA Audit File (FAF) button on the worksheet) lists every VAT line of a period and saves it as a CSV named FAF-YYYY-MM.csv (for example FAF-2026-09.csv). Press `Generate FAF` first, then `Download CSV`. The tiles show Rows, Taxable and VAT. The columns are Date, Doc No, Type, Party, TRN, Dir, Box, Tax and Emirate.

ZEYTO'S OWN LIST

FAF is Zeyto's flat list. It has no company header, no separate supplier and customer listings, no general ledger section and no control totals. Zeyto does not claim it follows the FTA's official audit file layout. Use it as the backup behind your return, and ask your accountant before you send it to the FTA.

The file holds every VAT line dated in the period, filed or not, including the reversing rows from amended or cancelled documents, so its totals are net. Generating needs the vat.export permission.

> Source: `src/Zeyto.Web/src/help/content/pos-vat-designers.ts`, `src/Zeyto.Edge/Api/VatApi.cs`, `docs/operations/uae-readiness.md`, `tests/Zeyto.Tests/GoldenPostingTests.cs`

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7. Corporate tax, e-invoicing and what prints on a tax invoice

Corporate tax

`VAT ▸ Corporate Tax` estimates the tax on business profit for a tax period. It starts from your books, applies the add-backs and deductions you type, and works out the tax. It posts nothing and sends nothing. There is no journal for the tax.

- Revenue is every income account in the period. Accounting Profit is income less all expenses, cost of goods sold included.
- Taxable income is Accounting Profit plus Add Backs less Deductions, never below zero.
- The first 375,000 of taxable income is taxed at 0% and the rest at 9%. These are Zeyto defaults. The screen tells you to confirm them with your accountant.
- Elect small business relief: when elected and Revenue does not exceed the limit (3,000,000 by default), taxable income becomes zero. The sentence under the form says "Elected and available" or "Elected but NOT available".
- Free zone person switches off the 0% band. Zeyto does not split qualifying and other income.
- Zeyto does not carry losses forward.

ILLUSTRATIVE FIGURES

Corporate tax on 575,000.00 of taxable income

Accounting Profit is 560,000.00 and you add back 15,000.00 of non-allowed entertainment. Taxable income is 575,000.00. The part above the band is 575,000.00 - 375,000.00 = 200,000.00. Tax Payable is 9% x 200,000.00 = 18,000.00.

1. **Set the period.** Tax Period From and Tax Period To. They start as the calendar year.
2. **Add adjustments.** Description, Type (Add Back or Deduction) and Amount, then `Add Adjustment`.
3. Press **`Generate Computation`**. The tiles Revenue, Accounting Profit, Taxable Income and CT @ 9% fill in. It needs the vat.view permission.
4. **Keep the working paper.** Type a Note and press `Keep Computation`. Kept lines cannot be edited or deleted. It needs vat.export.

E-invoicing: what is built

UAE e-invoicing means each tax invoice travels as structured data (PINT AE) through an Accredited Service Provider (ASP) that reports it to the FTA. Zeyto is not an ASP. The `Settings ▸ UAE E-Invoicing` screen does these things today:

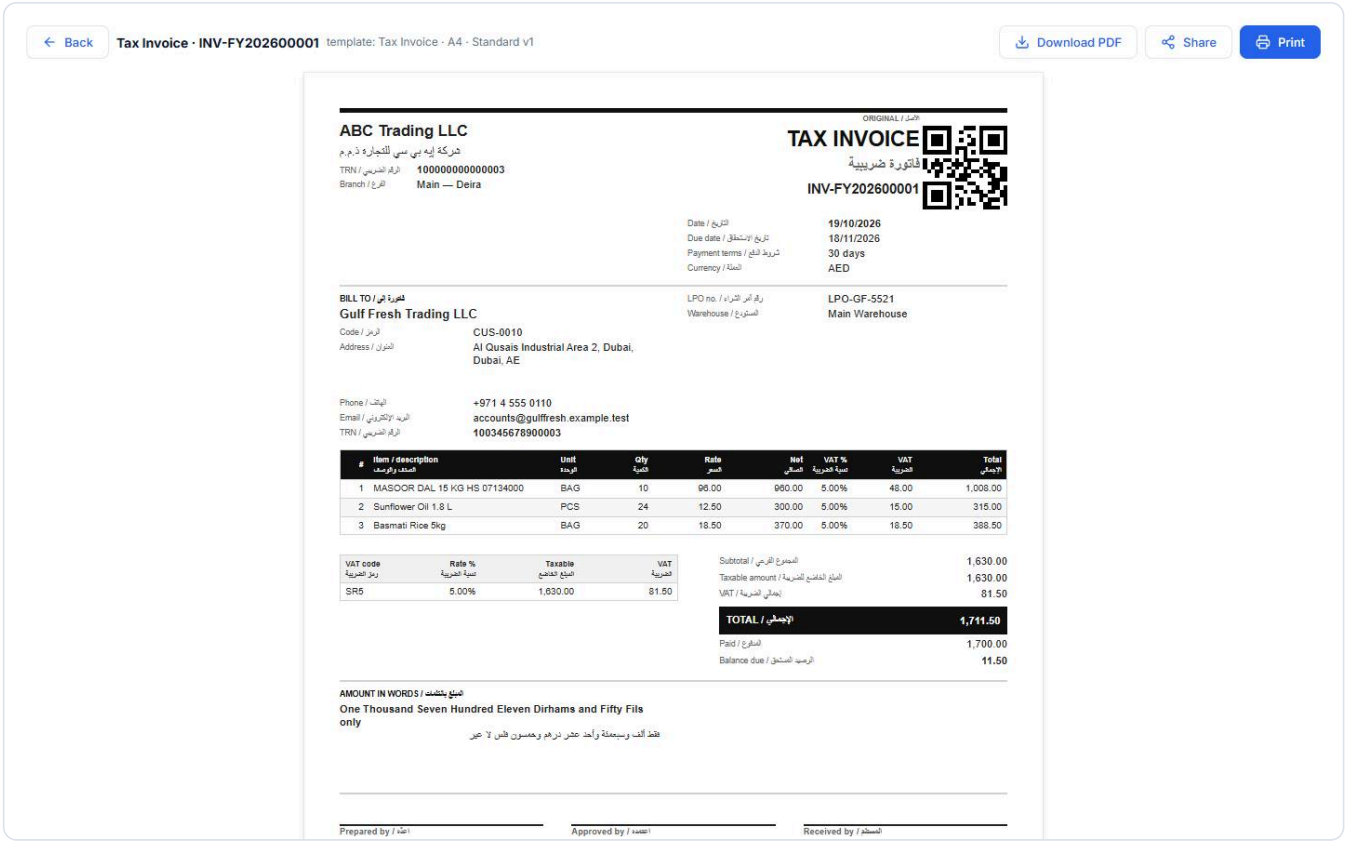
- When you submit a Sales Invoice or a Sales Return (sent as a credit note) for a customer with a TIN or TRN, a Peppol Participant ID and an Endpoint Scheme, Zeyto builds a draft PINT AE style XML file and queues it.
- Queue statuses are PARKED, QUEUED, SENDING, ACCEPTED, REJECTED and FAILED. Park Mode keeps the invoices PARKED. A Go-Live Date in the future also parks them.
- Inbound supplier XML can become a draft Purchase Invoice.
- Items have a Tax Category (e-invoice) field with the values S, Z, E, O and AE.

NOT BUILT YET: LIVE TRANSMISSION

There is no live connector to an ASP. With Sandbox ticked, Dispatch Queue only simulates an accepted answer. With Sandbox cleared, it reports that no live connector is installed. Nothing reaches the FTA, so do not treat this screen as e-invoicing compliance. POS sales and sales with no customer record are not queued.

What prints on a tax invoice

- **The title.** A Sales Invoice and a POS sale print "TAX INVOICE" with the Arabic title beside it. A Sales Return prints "TAX CREDIT NOTE" and names the invoice it reverses. A Purchase Invoice prints as "PURCHASE INVOICE", the recipient's record of the supplier's tax invoice.
- **Not tax documents.** A quotation, sales order and proforma carry a caveat on their face saying they are not a tax invoice. A delivery note has no VAT block.
- **TRN.** Your TRN prints in the company block and the party's TRN in the party block, each with its Arabic caption.
- **Advances.** The number caption reads "Tax Invoice No" when VAT was charged and "Receipt No" when it was not. A final invoice that applies an advance shows "Less: Advance Tax Invoice nos.".
- **QR.** A QR code is drawn on the A4 layouts and the thermal receipt for SI, POS and SR only, not on a delivery note.
- **POS.** The till receipt on an 80 mm or 58 mm roll is the simplified tax invoice. The same sale can also print as an A4 or A5 invoice.



A4 tax invoice. The template is Tax Invoice, A4, Standard v1. The title TAX INVOICE and its Arabic title are at the top right with a QR code and the number INV-FY202600001. Your TRN is under the company name and the customer TRN in the Bill To block. A VAT summary table shows SR5, 5.00%, taxable 1,630.00 and VAT 81.50. The totals show 1,711.50, Paid 1,700.00 and Balance due 11.50, followed by the amount in words in English and Arabic.

Not verified in code: what the QR contains. In the layouts I read, the QR element is bound to the document number field (doc.docNo), and code comments call it the FTA QR. I found no code that builds a seller, TRN, time, total and VAT payload. Scan a printed invoice before you promise a customer an FTA QR.

> Source: `src/Zeyto.Web/src/help/content/pos-vat-designers.ts`, `src/Zeyto.Web/src/help/content/settings-finance.ts`, `docs/einvoicing/uae-pint-ae-wo15.md`, `src/Zeyto.Edge/Domain/CorporateTax`, `src/Zeyto.Edge/Printing/DocProfiles.cs`, `src/Zeyto.Edge/Printing/StandardLayout.cs`, `src/Zeyto.Edge/Printing/ThermalLayout.cs`

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8. Check yourself and common mistakes

Check yourself

1. Post a cash invoice for 3 lines of 1 × 0.33 on SR5. The invoice total must be 1.05 and the VAT 0.06, not 0.05.
2. Post 5 × 18.50 on SR5. The VAT must read 4.63 and the total 97.13.
3. Open the VAT Ledger for the month and filter Direction to Output. The sum of VAT must equal the net credit movement on 2200 VAT Output for the month in Account statement.
4. Open the Return Worksheet. The Standard-rated supplies row of box 1 must equal the sum of lines 1a to 1g plus Emirate not recorded, and equal the Taxable and VAT totals of the Output side of the Tax report.
5. Post an advance of 105.00 on SR5. The VAT Ledger must show OUTPUT, taxable 100.00, VAT 5.00, box 1. Apply it to an invoice and confirm the VAT is not counted twice.
6. Look for the red banner on the worksheet. It must be absent before you file.
7. After filing, try to amend an invoice in that period. You must get `PERIOD_FILED`.

8. Download the FAF. Rows, Taxable and VAT in the tiles must match the VAT Ledger for the same period.

Common mistakes

SYMPTOM	CAUSE	FIX
Mark as Filed & Lock Period is disabled	The period is already filed, the worksheet is loading, or lines with no VAT tax code exist.	Read the red banner, open each named document, Amend it, give the line a code and submit.
VAT total is 0.01 higher or lower than a hand calculation	You rounded the invoice total. Zeyto rounds each line half-up and adds the lines.	Work out VAT per line. Example: three lines of 0.33 give 0.06, not 0.05.
Zero-rated sale appears in the wrong box	The line used EX (box 5) instead of ZR (box 4), or the reverse.	Choose the right code. Amend the document before the period is filed.
Box 1 shows a line "Emirate not recorded"	Neither the customer nor the Company Profile had an emirate when the document was posted.	Set the emirate on the Company Profile. Later documents pick it up. Posted ones keep what they had.
Cannot amend or cancel an invoice: `PERIOD_FILED`	The VAT period is locked. There is no unfile.	Make the correction in an open period and settle the return with the FTA through your accountant.
VAT counted twice on a job with an advance	The final invoice did not apply the advance, so no pro-rata reversal happened.	Apply the advance on the final invoice. Cancel an unused advance with a credit note (ACN).
Import VAT does not change net VAT	It posts Dr VAT Input and Cr VAT Output for the same amount, boxes 10 and 6 or 7.	This is correct when you can claim all input VAT. Compare the Box 6 tile with the FTA figure.
Reverse-charge purchase invoice shows no output VAT in the worksheet	The help says a Purchase Invoice does not declare it, while the posting map self-assesses.	Use Purchase ▸ RCM Self-Accounting for the documented path, then check boxes 3 and 10 in the VAT Ledger.
The e-invoice queue shows PARKED or ACCEPTED but the FTA has nothing	There is no live ASP connector. Sandbox only simulates.	Keep Park Mode on and file through your ASP outside Zeyto.
FAF rejected by the FTA portal	FAF is Zeyto's own flat CSV, not the FTA layout.	Use it as the backup behind the return and ask your accountant for the official file.

> Source: `src/Zeyto.Web/src/help/content/pos-vat-designers.ts`, `src/Zeyto.Web/src/help/content/reports-catalog-vat-payroll-masters.ts`, `src/Zeyto.Web/src/help/content/purchase.ts`, `tests/Zeyto.Tests/GoldenPostingTests.cs`, `docs/operations/w24-advance-tax-invoice-2026-11-06.md`

INSIGHT AND OUTPUT

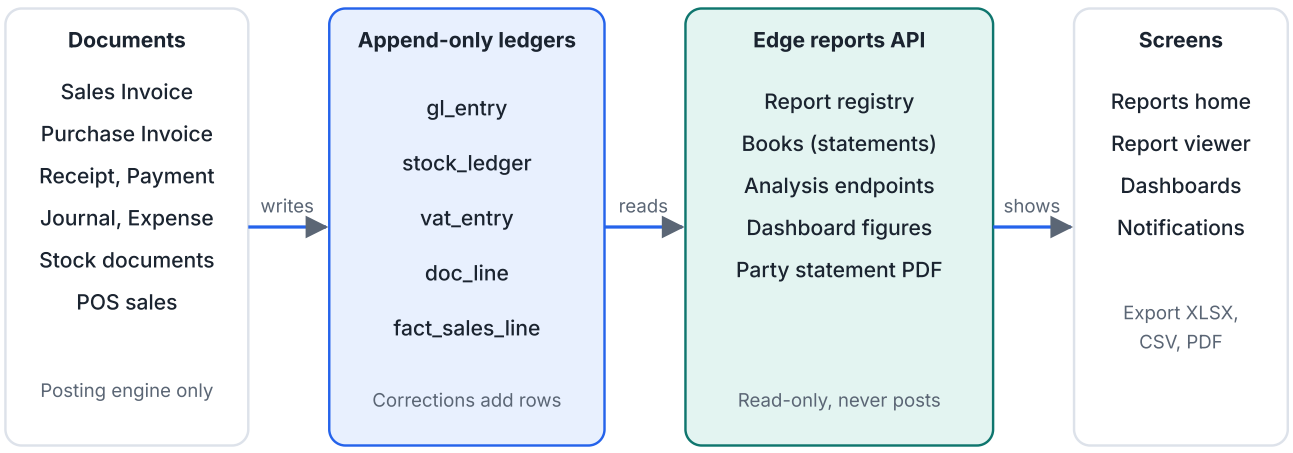
Reports, statements and dashboards

After this chapter you can find the right report for any question, read a party statement without being fooled by amendments, use the Analysis tab and the dashboards, and prove for yourself that one posted sale shows up in every report that should carry it.

How reports work

A report in Zeyto is a read. It never posts, never edits a document and never changes a balance. Every figure on every report is calculated by the Edge service from the same stores that the posting engine writes to: the general ledger (`gl_entry`), the stock ledger (`stock_ledger`), the VAT ledger (`vat_entry`) and the document lines (`doc_line`). The sales and purchase analysis reports read one shared definition of a sales fact (`fact_sales_line` and the trade-facts code), so two reports that talk about "sales" cannot disagree about what a sale is.

This is why the owner's rule "every entry reflects in every report" holds without anyone copying anything. You do not run a "refresh reports" job. You post a document, and the next time any report is opened it reads the new rows.



The big picture. Only the left arrow writes, and only the posting engine uses it. Everything to the right of the ledgers is a read, so opening, filtering, grouping or exporting a report cannot change your books.

RULE

The ledgers are append-only. When you amend or cancel a document, the engine adds rows (a negated copy of the old rows plus the new ones) and never edits the old rows. Reports therefore have to decide how to show those extra rows. That choice is what the net view and the "Show amendment history" option of the statements are about, later in this chapter.

Three families of screens

Reports

Pages in the report viewer, driven by one registry. Each report is one declaration: its title, area, data source, filters, columns, grouping, totals and the drill-down target.

Books

Dedicated screens with their own frame and an Analysis tab: Account statement, Credit statement, Payables statement, Outstanding, Aging, Day book, Trial balance, Stock report and the other Emeron-parity screens.

Dashboards

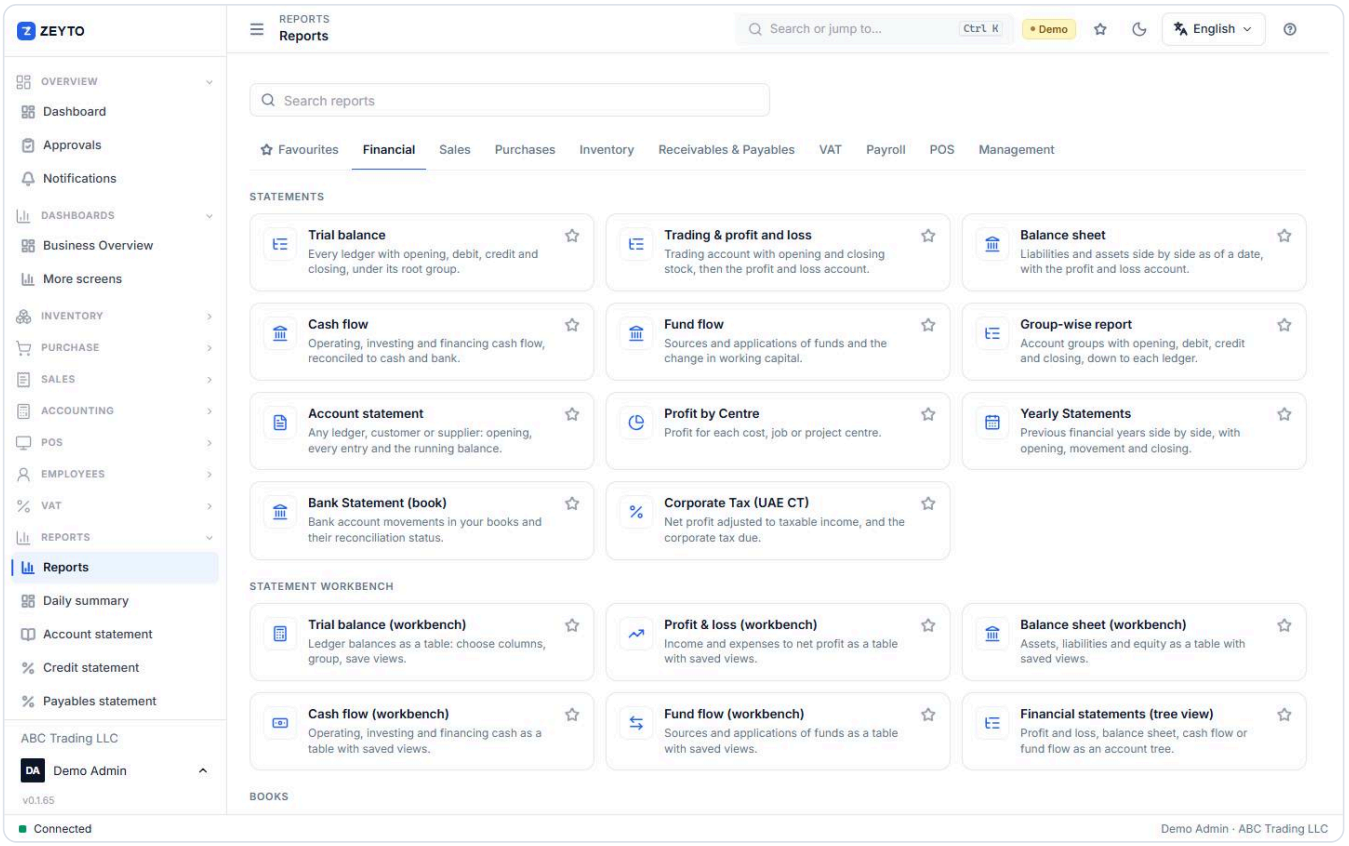
Tiles and charts for a quick look: the Dashboard home, the department dashboards and Business Overview. They show a summary and lead you to the books for the detail.

> Source: `src/Zeyto.Web/src/screens/reports/reports.ts`, `src/Zeyto.Web/src/screens/reports/books/BookShell.tsx`, `docs/operations/emeron-report-parity.md`, `docs/operations/w55-statement-duplicates.md`

The report catalogue

Open `Reports` in the sidebar. The Reports home has a search box, a row of Recent chips, a Favourites tab (click the star on any report) and these category tabs: Financial, Sales, Purchases, Inventory, Receivables & Payables, VAT, Payroll, POS and Management. A report you are not allowed to see, or one your licence does not include, shows a lock chip instead of opening.

In release 0.1.65 the sidebar Reports menu lists Reports (the home), Daily summary, Account statement, Credit statement, Payables statement, Outstanding, Aging, Day book, Group-wise report, Cash & bank book, Stock report, Item movement, Asset purchase report, Over-received customers, Over-paid suppliers, Sales analysis, Purchase analysis, Sales report (detailed), Purchase report (detailed), Pending documents, VAT return (201), Tax report and More screens. The financial statements (Trial balance, Trading & profit and loss, Balance sheet, Cash flow and Fund flow) are on the Reports home under the Financial tab, as the picture shows. Many more reports sit behind the Reports home and More screens. The tables below name them by area, using the titles the registry gives them.



The Reports home. A search box, then the tabs Favourites, Financial, Sales, Purchases, Inventory, Receivables & Payables, VAT, Payroll, POS and Management. Each card has a star for Favourites. The Financial tab groups Statements, the Statement workbench (the same statements as tables with saved views) and Books.

Sales and purchases

AREA	REPORTS
Sales	Sales Register, Salesman-wise Sales Report, POS Sales by Salesman, Sales Return Register, Sales Order Register, Quotation Register, Delivery Note Register, Proforma Register, Sales Line Detail, Gross Profit by Line, Pending Sales Orders, Sales Analysis, Daily Business Summary, Outstanding (customer, bill-wise), Delivery Notes (invoicing status)
Purchase	Purchase Register, Purchase Return Register, Purchase Order Register, Goods Receipt Register, Landed Cost Register, Purchase Line Detail, Pending Purchase Orders, Goods Received Not Invoiced, Purchase Analysis, Outstanding (supplier, bill-wise)

Inventory

AREA	REPORTS
Stock position	Stock Balance & Valuation, Stock Balance (period movement), Stock Ledger / Movement, Stock Status (Min / Max / Negative), Reorder Report, Slow / Fast Movers, Batch Expiry, Serial / IMEI Register
Stock documents	Transfer Register, Opening Stock Register, Adjustment Register, Reconciliation Register, Production Register, Repack Register, IMEI Replacement Register, Warranty Job Register

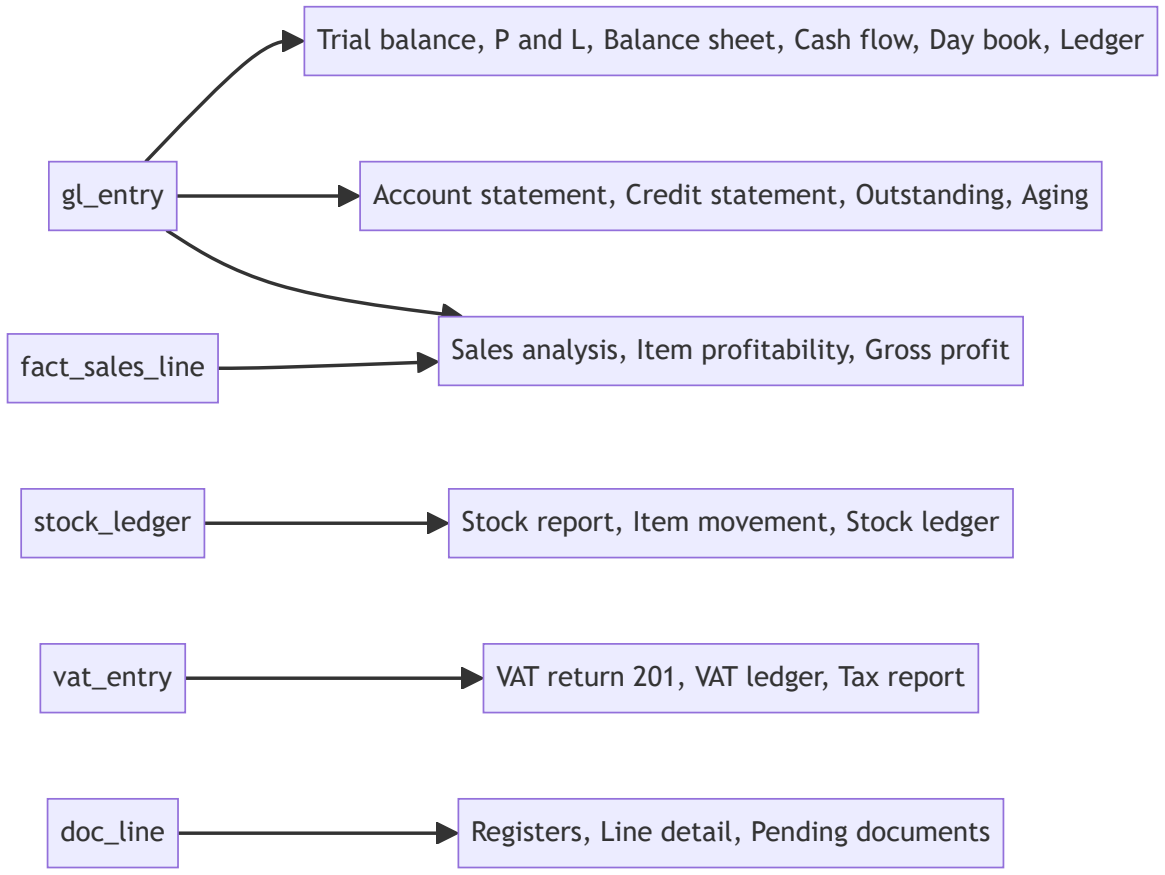
Accounts, VAT, POS, payroll and cards

AREA	REPORTS
Accounting	Trial Balance, Profit & Loss, Profit by Centre, Balance Sheet, Day Book, Group Summary, General Ledger, Aging (receivables and payables), Overpaid / Unallocated, Party Balance Summary, Most Overdue Invoices, PDC Register, registers for Receipt, Payment, Expense, Journal, Contra, Advance and Credit Note, Account Statement, Bank Statement (book), Cash Flow, Fund Flow, Corporate Tax (UAE CT)
VAT	VAT Return (VAT 201), VAT Ledger, VAT Box Summary by Party
POS	Shift & Z Summary, Terminal Summary, POS Invoice Register, Tender Mix, Hourly Sales Heatmap
Payroll	Payroll Register, Salary Cost by Branch, WPS SIF Register, Employee Advance Balances, ID / Visa Expiry Alerts, Gratuity Liability
Cards	Card Payments Not Yet Settled (ageing), Card Merchant Fees, Card Settlement Variance, Card Clearing Reconciliation, Card Chargebacks, Sales Commission Summary, Sales Commission Payable (ageing)
Masters	Other Master Lists

Screens that are not in the sidebar

Some screens are reached from the Reports home or by a link inside another report: Ledger Audit, Posting Trail, Party Statement, Financial statements (tree view), Profit & loss (workbench), Yearly Statements and Monthly View. The profitability group has Item Profitability, Customer Profitability, Salesman Scorecard, Supplier Intelligence, Exception Centre, Profit by Dimension and Working Capital. The operational group has Prepaid Register, Fixed Asset Register, Depreciation Schedule, Asset Movement, Cost True-Up Bridge, Sales Waiting For A Purchase and Pending Orders.

> **TIP**
>
> Old links that used `?report=` for account-statement, daybook, aging, sales-analysis, vat-201 and similar ids still work. They redirect to the stand-alone book that replaced them, so a bookmark from an older release does not break.



Which store feeds which family of reports. A report may read more than one store. Sales analysis takes quantities and sales from the shared sales facts and the credit notes from `gl_entry`, which is why its returns column agrees with the ledger.

> Source: `src/Zeyto.Web/src/screens/navReportsSales.ts`, `navReportsPurchase.ts`, `navReportsInventory.ts`, `navReportsAccounts.ts`, `navReportsFin.ts`, `navReportsOrder.ts`, `src/Zeyto.Web/src/screens/reports/reports.ts`, `src/Zeyto.Web/src/screens/reports/ReportsHome.tsx`

Reading a report: the viewer

Every report in the registry opens in the same viewer, so once you can drive one you can drive all of them. The Emeron-parity books (Account statement, Credit statement, Aging, Day book and others) use a second frame, the book shell, that looks and behaves almost the same. Both follow the owner's rules: the title appears once, Export and Print sit in the filter row, and the filters are compact.

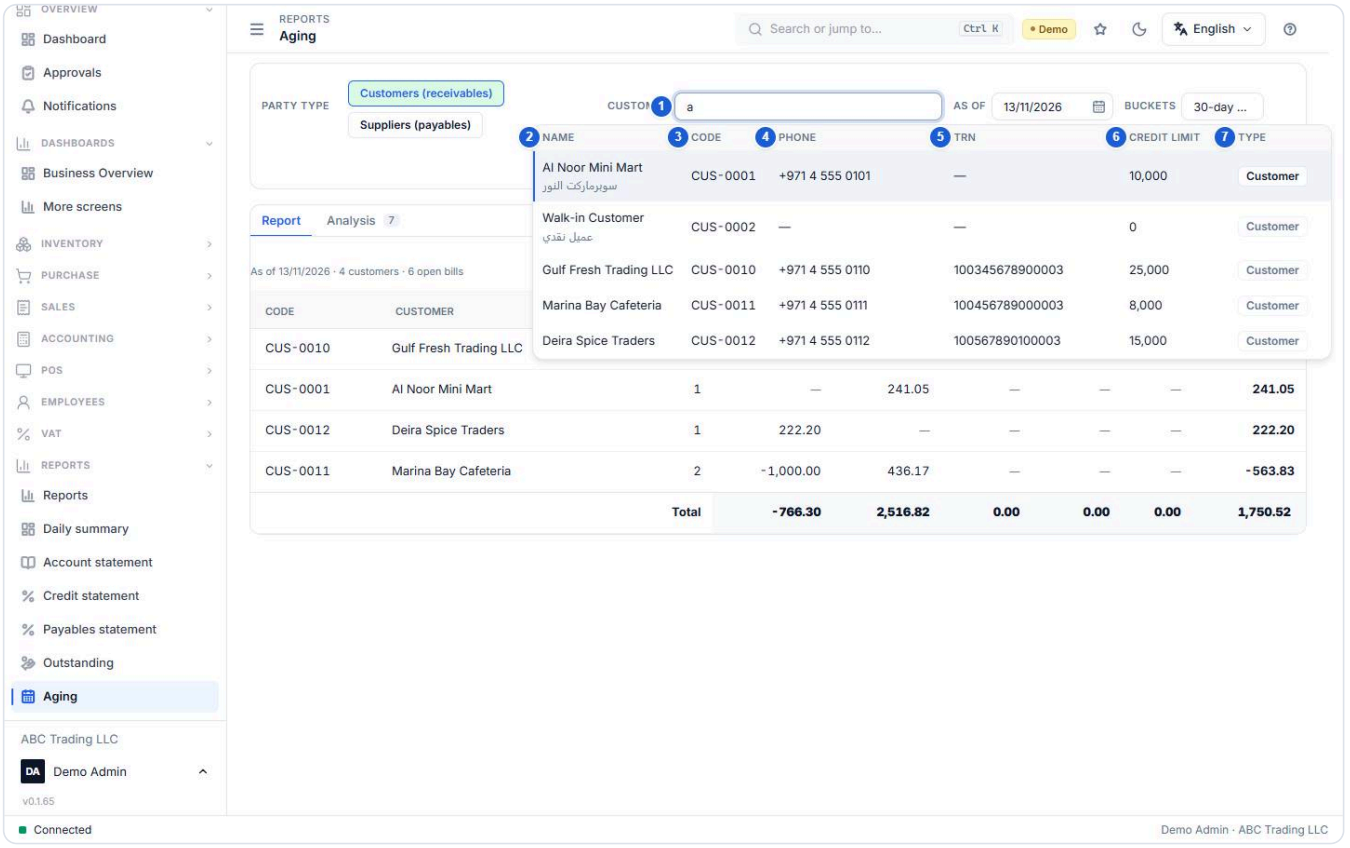
Sales Register | Fullscreen | Export CSV | Export XLSX | Export PDF | Email PDF | Saved views

Period: This month | Customer: Golden Customer (Customer) | Branch: All branches | Run

DOC NO	DATE	CUSTOMER	AMOUNT	VAT	TOTAL
INV-00001	15/03/2026	Golden Customer	150.00	7.50	157.50

The mock above shows the layout, not a real column list. Each report declares its own columns.

Filters are typed pickers



A typed multi-column picker. The Customer filter of the Aging report after typing one letter. The list shows five customers, with the Arabic name under the English one.

1. Customer picker: the box you type in. A part of a name, code or phone number is enough.
2. NAME column: the name of the customer, with the Arabic name under it when there is one.
3. CODE column: the customer code, for example CUS-0010.
4. PHONE column: the phone number on the customer master.
5. TRN column: the tax registration number of the customer, a dash when there is none.
6. CREDIT LIMIT column: the limit on the customer master, 0 for the walk-in customer.
7. TYPE column: the record type, here Customer. This is the type word added to every result.

A filter that names a master record (customer, supplier, account, item, branch, warehouse, salesman, cost, job or project centre) is a typed multi-column picker, the same one the document forms use. You type any part of a name, code or phone number, the dropdown shows several columns, and the record type is added to every result (for example "Customer") and to the chip you pick. The closed box shows the name, with the code in small type. Date filters use the period box (Today, This month and so on) or two dates, shown as DD/MM/YYYY. Filters that are not master records, such as LPO or terminal, are plain "Contains" boxes.

Nothing runs until you press `Run`. Change a filter, check it, then press it.

Columns, grouping and sorting

- **Columns.** The column chooser ("Columns on screen") has `Show all` and `Reset`. Hiding a column also removes it from your export.
- **Group by.** Reports that have a date range offer Group by with None, Daily, Weekly, Monthly or Yearly. Group subtotals and the grand total at the foot (the Σ row) are sums of the rows the server sent.

- **Sorting.** Click a column heading. Statements are the exception: they keep their running-balance order and are never re-sorted, because a running balance makes sense only in date order.
- **Report and Analysis tabs.** The Report tab is the grid. The Analysis tab has figure cards and charts (see the Analysis section).
- **How is this calculated?** A footnote link under the report explains the rule behind the figures in plain words.

Drill-down

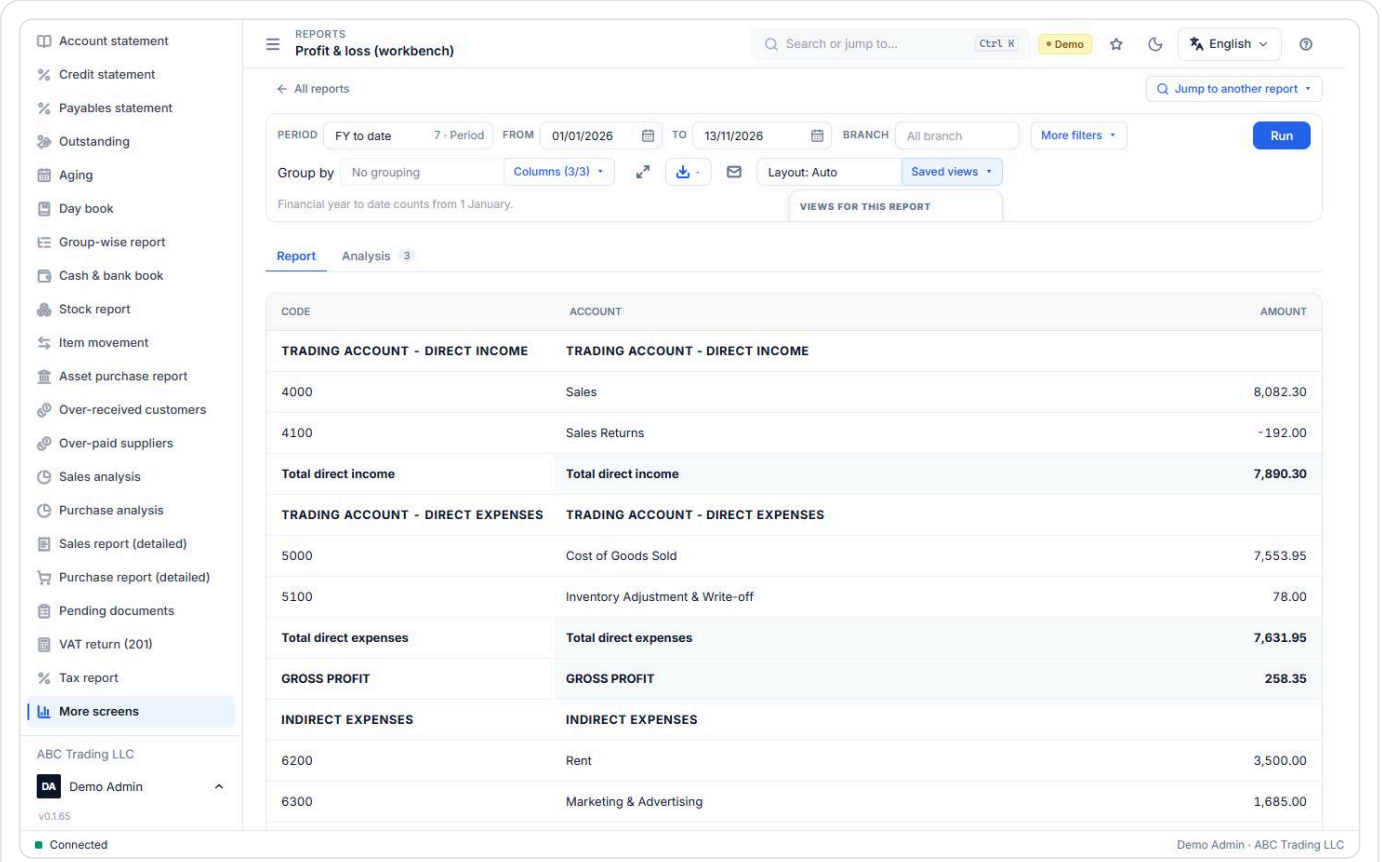
A row that stands for a document opens that document. The link is built from the document number (`?doc=<docNo>`) and goes to the right form for the type. It works on registers and other item-level reports. Chart rows on the Analysis tab drill the other way: a click on a bar takes you back to the Report tab filtered to that bar.

Export

The toolbar has Export CSV, Export XLSX, Export PDF and Email PDF. The PDF has an orientation selector (Auto picks landscape when the columns are wide). An export carries exactly the rows and columns you see, in the order you see them, so filter and hide first, then export. The book shell has Export XLSX, Export PDF, Export CSV and Print in its header.

Saved views

The `Saved views` menu keeps named presets of a report's filters, columns and sort. Type a name under "Name this view" and press `Save`. Pick a saved view later to apply it, or press the cross to delete it. The viewer also remembers where you were last in each report, and the Favourites and Recent chips on the Reports home use the same store.

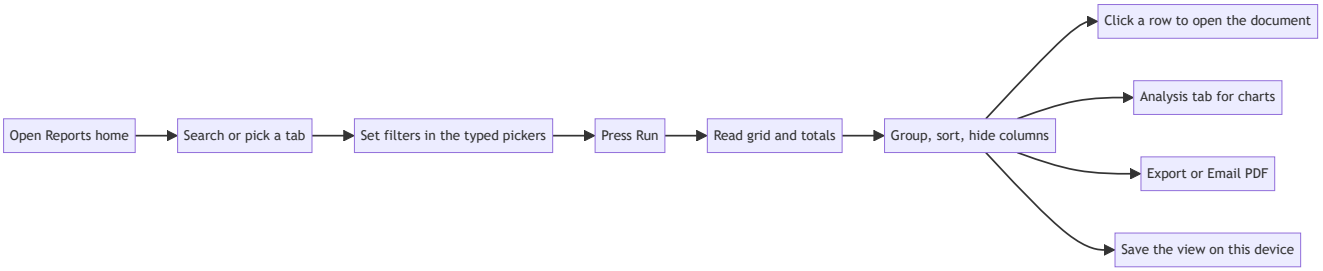


Saved views on the Profit & loss (workbench). The filter row has Period, From, To, Branch, More filters and Run. Under it are Group by, Columns (3/3), full screen, download, email, Layout: Auto and the Saved views menu, shown open with its heading "Views for this report". The note under the filters says the financial year to date counts from 1 January.

> **WARNING**
> Saved views, favourites and recents live in the browser of the device you used (the key is `zeyto.reports.workbench.v1`). The menu says "Saved on this device only — shared company views need the server store." That server store was never built. A view you saved on the shop computer does not exist on your phone or on a colleague's screen, and clearing the browser data removes it.

Tutorial: a monthly sales list for your accountant

1. **Open the report.** Go to `Reports`, type "Sales Register" in the search box and open it.
2. **Set the filters.** Choose the period (for example Last month). Click the Customer box and type part of a name; pick the row that says Customer in the type column. Leave Branch on All branches.
3. **Run it.** Press `Run`. Check the row count and the total against what you expect.
4. **Group it.** Set Group by to Monthly if the range covers more than a month. The subtotals appear under each month.
5. **Tidy the columns.** Open "Columns on screen", hide what the accountant does not need and leave Total visible.
6. **Save the view.** Open `Saved views`, type "Accountant month-end" and press `Save`. Next month you apply it and press Run.
7. **Export.** Press `Export XLSX` for a sheet or `Email PDF` to send it. The file holds only what you see.



The reading loop. The same steps apply to every report. Only the filters and columns change.

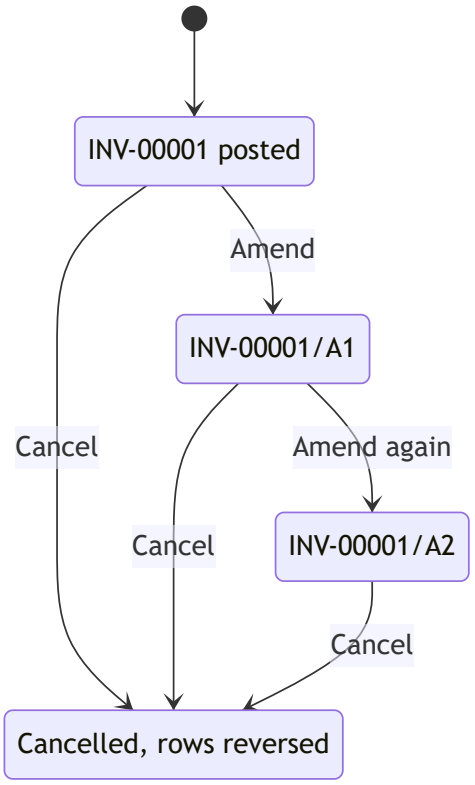
Source: `src/Zeyto.Web/src/screens/reports/ReportViewer.tsx`, `src/Zeyto.Web/src/screens/reports/ReportMenus.tsx`, `src/Zeyto.Web/src/screens/reports/savedViews.ts`, `src/Zeyto.Web/src/screens/reports/ReportFilterBar.tsx`, `src/Zeyto.Web/src/screens/PickerField.tsx`, `docs/operations/w13-report-layout-2026-11-06.md`

Statements, books and amendment history

Statements are where the append-only ledger meets the reader, because a customer's statement is a list of ledger rows. An amended invoice leaves three kinds of rows behind. The statements of the current release are built to show you one clear line per document by default, and to show every row only when you ask.

What happens when a document is amended

Amending a posted document re-posts the same document in place. Its number gets a suffix: INV-00001 becomes INV-00001/A1, then /A2. The engine writes a negated copy of the old rows (marked as a reversal) and then the new rows. Cancelling writes the negated copy only.



Life of a sales invoice number. Each arrow adds ledger rows. No row is ever edited or deleted, so the history is always recoverable.

Net view and history view

Since release 0.1.64 the statements default to a net view. The books were never wrong. The display used to print every row under the current document number with no label, so an amended invoice looked like the same invoice three or four times with plus and minus amounts. The net view removes each reversal row together with the rows it cancelled. It never adds rows together: two live rows of one document stay two rows. Totals, running balances and the closing balance are identical in both views. The history view lists every posting event and labels each row:

LABEL	MEANING
Original	The first posting of the document.
Reversal of Original, Reversal of A1 ...	The negated copy written when the document was amended. It names the state it takes back.
Amendment A1, A2 ...	The new rows written by the first, second ... amendment.
Cancellation (reverses A1)	The reversal written when the document was cancelled. It names the state it takes back.
Adjustment	A re-posting of the document that is not one of its numbered amendments.

LABEL	MEANING
Advance applied (VAT reversed)	An advance receipt set against the invoice, with its VAT reversed in the same posting event. These rows are real and stay visible in the net view too.
Discount VAT adjustment	The VAT correction that a discount causes. Also real, also always visible.

ILLUSTRATIVE FIGURES

One invoice, amended once

Invoice INV-00001 for 10 units at 100.00 plus 5% VAT is 1,050.00. The customer asks for 12 units, so you amend it to 1,200.00 plus 60.00 VAT, 1,260.00. The figures follow the posting rule above; the labels are the ones the history view prints.

HISTORY VIEW, CUSTOMER ACCOUNT	DR	CR
Original (INV-00001)	1,050.00	
Reversal of Original		1,050.00
Amendment A1 (INV-00001/A1)	1,260.00	
Closing balance	**1,260.00**	

The net view drops the Original and its Reversal, which cancel each other, and shows the one live line, 1,260.00 Dr, tagged "Amended (A1)". A cancelled document is tagged "Cancelled". The closing balance is 1,260.00 Dr in both views. If you ever see two different closing balances, the filters differ, not the books.

What the screens offer today

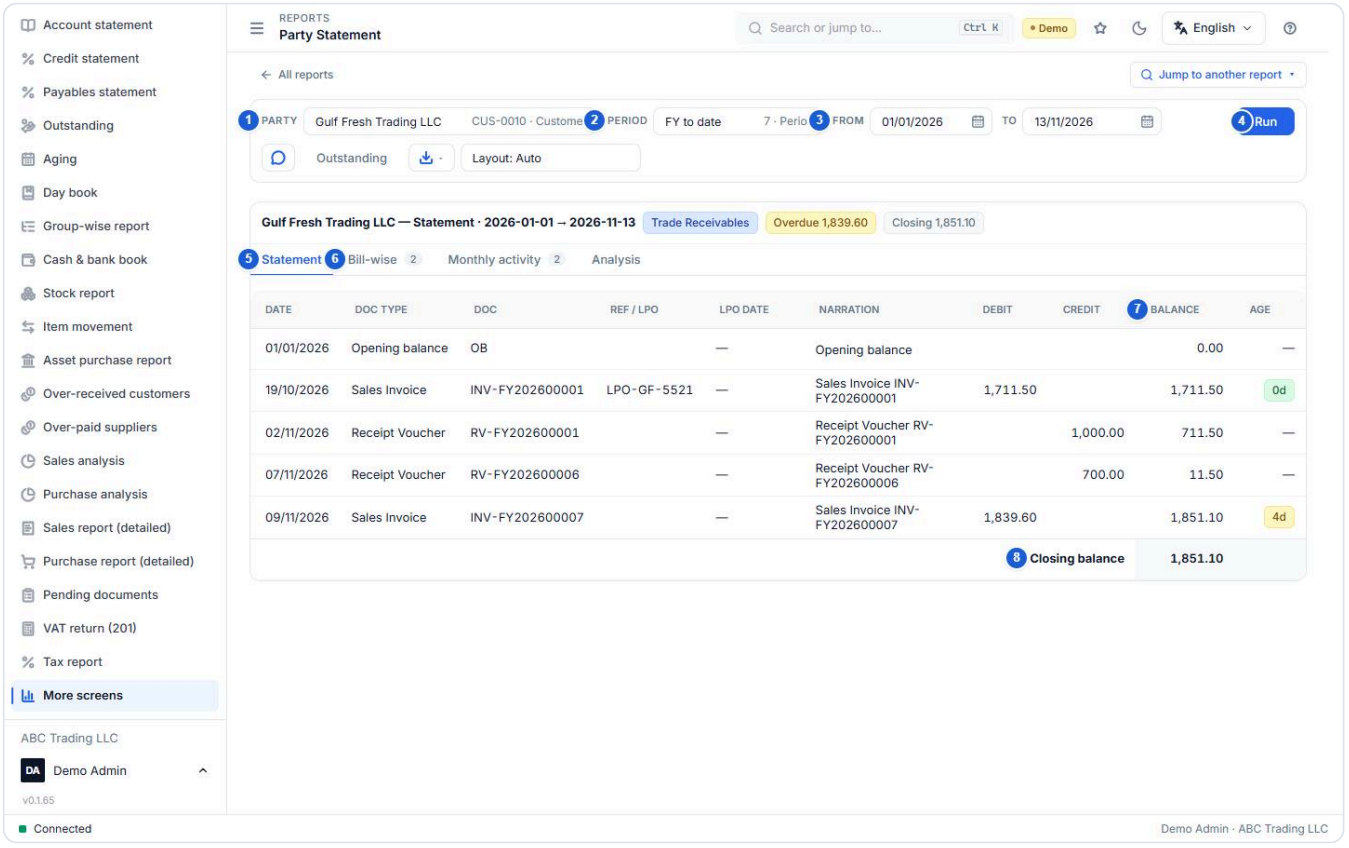
SCREEN	NET VIEW	SHOW AMENDMENT HISTORY
Account statement (`Reports ▸ Account statement`)	Default	Checkbox "Show amendment history". It adds a Status or Posting column with the labels above.
VAT return (201), audit list	Default	Checkbox in the audit list under "Show documents". The VAT detail export has a Posting column.
Party Statement (`/reports/party-statement`)	Default	No checkbox. The server supports it (`history=true`) but the screen does not send it yet.
General Ledger, Ledger Audit, Posting Trail, Day book	Not applicable	Raw audit-trail reports. They always list every row.

RULE

The Credit statement, Payables statement, Outstanding, Aging, VAT 201 boxes, Profit & loss, Sales analysis, Stock report and Trial balance were not changed by the net view. They never listed duplicate rows, so you can trust them as they are.

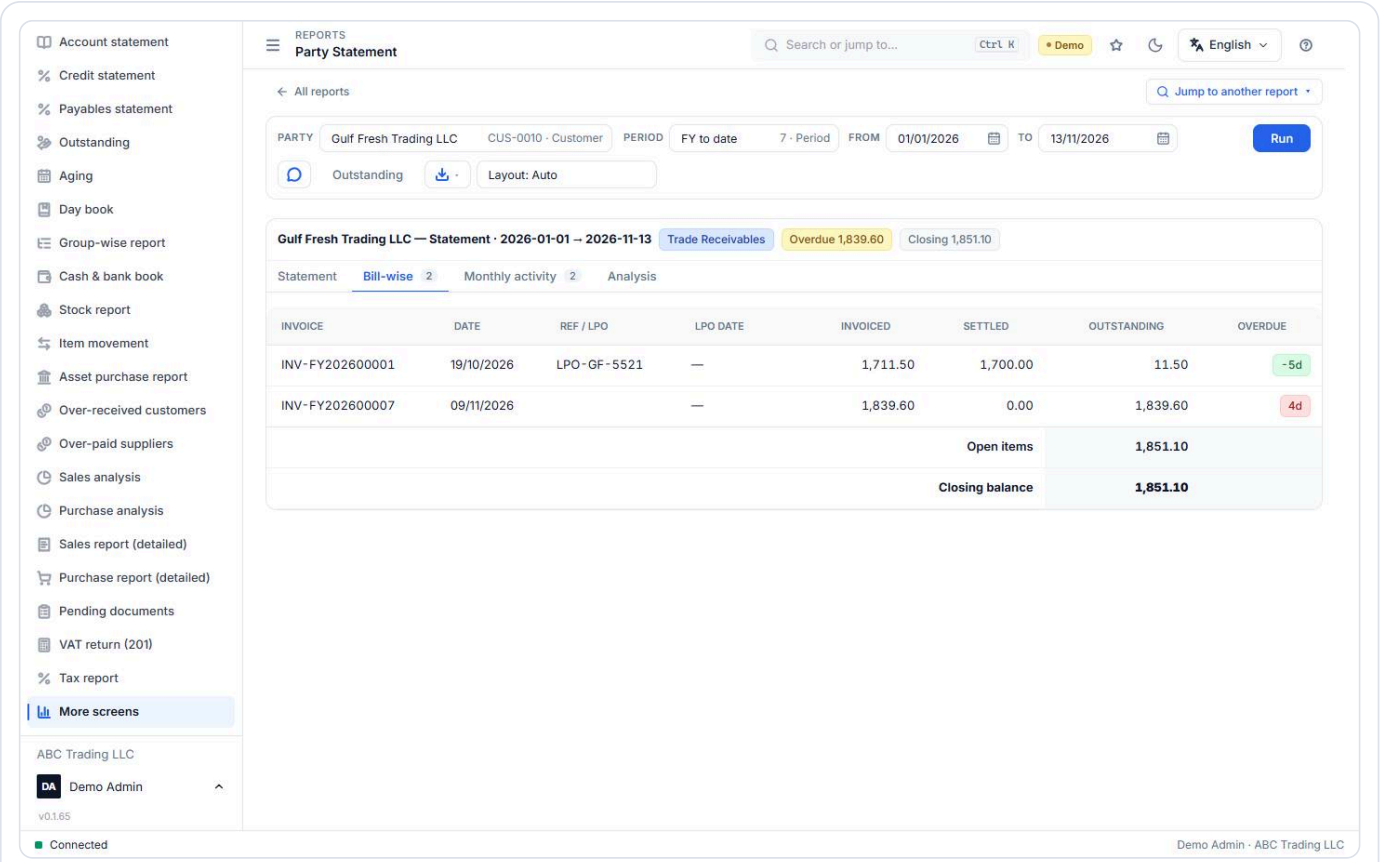
Party Statement

`Reports ▸ Party Statement` serves both sides. The Party picker finds customers and suppliers in one box ("search customer / supplier"), and the type word in the dropdown tells them apart. The screen has four tabs: Statement, Bill-wise, Monthly activity and Analysis. Under the filters are a WhatsApp button (the speech-bubble icon), Outstanding, a download menu and a Layout box set to Auto. The header above the tabs shows the party, the period, a chip with the receivable account, an Overdue amount and the Closing balance. A printed Statement of Account is also available from the server. Use it for the single party you are talking to. For the whole list of who owes you, use the Credit statement and Aging.



Party Statement, Statement tab. Gulf Fresh Trading LLC for the financial year to date. Every entry appears in date order with its running balance: the opening balance, invoice INV-FY202600001 (1,711.50), two receipts (1,000.00 and 700.00) and invoice INV-FY202600007 (1,839.60). The closing balance is 1,851.10.

1. PARTY: the picker for the customer or supplier. Here Gulf Fresh Trading LLC, CUS-0010.
2. PERIOD: a quick choice such as FY to date.
3. FROM and TO: the two dates, shown as DD/MM/YYYY.
4. Run: reads the statement again after you change a filter.
5. Statement tab: every document of the party in date order.
6. Bill-wise tab: the open invoices net of the receipts set against them. The small number is how many bills there are.
7. BALANCE column: the running balance after each line.
8. Closing balance: the balance at the end of the period.

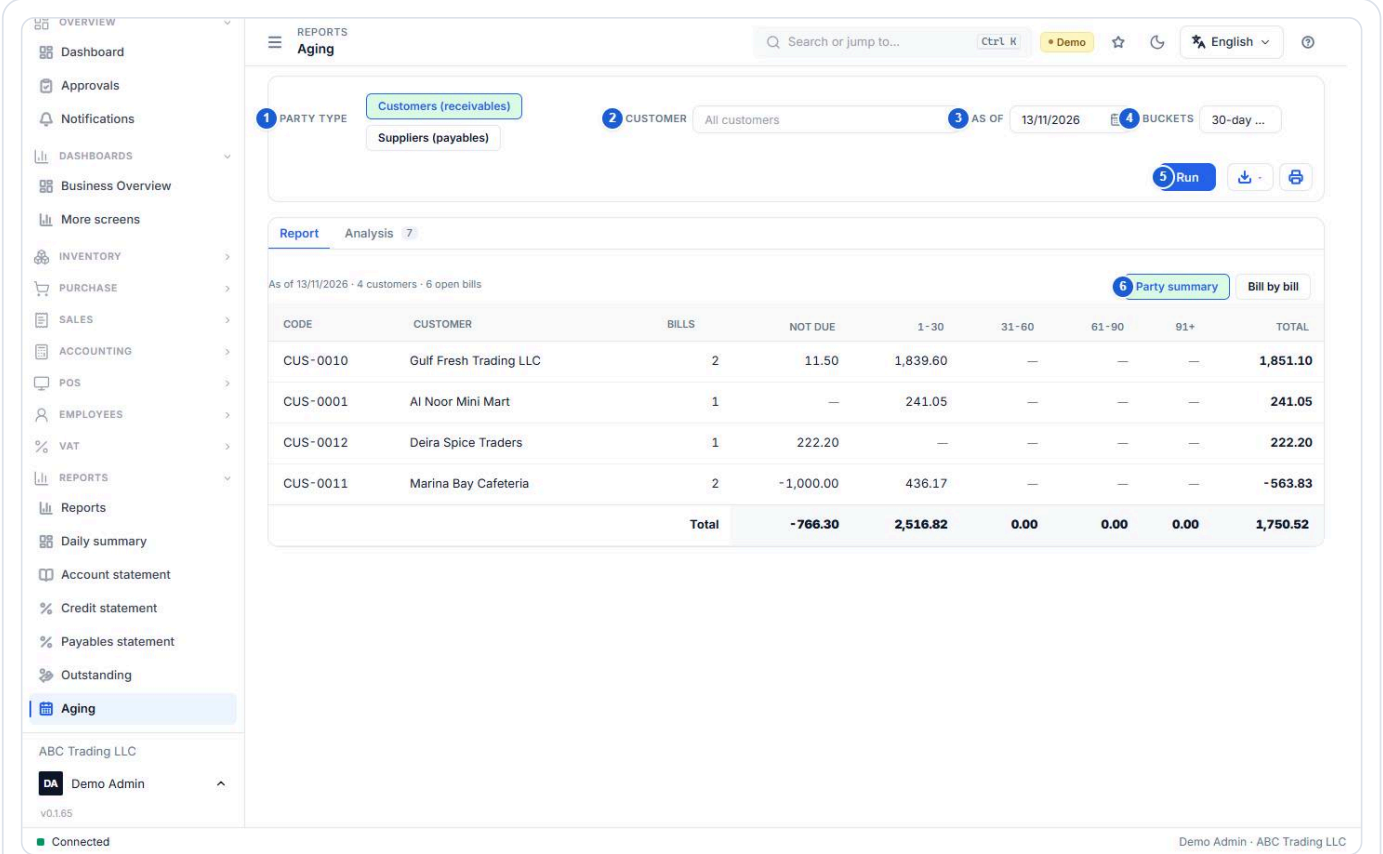


The same party, Bill-wise tab. Invoice INV-FY202600001 was 1,711.50 and 1,700.00 is settled, so 11.50 is outstanding and not yet overdue (-5d). Invoice INV-FY202600007 is 1,839.60, nothing settled, 4 days overdue. Open items add up to the closing balance, 1,851.10.

Do not confuse this Bill-wise tab with the net view of amendments described above. Bill-wise nets receipts against invoices. The net view removes reversal rows of amended or cancelled documents. The Statement tab is the full history of every document with a running balance.

Credit statement, Payables statement and Aging

- **Credit statement.** Total, Received and Balance for your customers. The headline figure is Net receivable: the unpaid invoices, plus what is owed but is not an invoice (for example a journal), less what was received but not set against an invoice (advances and receipts kept on account). Two lines explain the difference, "Owed, but not an invoice" and "Received, not against an invoice", and you can click the second to list the documents.
- **Payables statement.** The same view for suppliers.
- **Aging.** The Buckets box sets the size of a bucket (7, 15, 30 or 60 days). The screen opens on 30-day buckets with the columns Not due, 1-30, 31-60, 61-90 and 91+. Over-received customers and Over-paid suppliers are separate screens.



Aging, Party summary. As of 13/11/2026, four customers and six open bills. Gulf Fresh Trading LLC has 11.50 not yet due and 1,839.60 in 1-30. Marina Bay Cafeteria shows -1,000.00 in Not due, a credit, so its total is -563.83.

1. PARTY TYPE: Customers (receivables) or Suppliers (payables).
2. CUSTOMER: an optional typed picker; empty means all customers.
3. AS OF: the date the ageing is measured on.
4. BUCKETS: the size of each age bucket, 30-day here.
5. Run: reads the report again.
6. Party summary and Bill by bill: one row per customer, or one row per open invoice.

> **WARNING**
>
> The word "Received" means two things. On a trade register header it is the document total minus the balance, so it includes returns and cash. On the Credit statement it counts only what was set against open bills. The two figures can differ for the same customer. The documents list this as a known difference, not an error.

Books: Day book and ledger

- **Day book.** One row per voucher, in date order, with the type, number and party. The Amount is the document's own total for Sales Invoice, POS, Sales Return, Purchase Invoice, Purchase Return, Receipt, Payment and the advance receipt and payment. Journals, expenses and stock documents show their debit total. A cancelled voucher keeps its row with amount 0.00. Opening balances are not listed.
- **General Ledger, Ledger Audit and Posting Trail.** The raw rows, one per posting line, with reversals shown. Posting Trail and General Ledger accept Cost, Job and Project centre filters. Use these when you need to prove a figure, not to read a balance.
- **Trial balance, Profit & loss, Balance sheet, Cash flow, Fund flow.** The standard statements as tables. The workbench versions let you choose columns, group and save views. Financial statements (tree view) show the same figures as an

expandable account tree.

> **TIP**
> Default dates differ between screens. Some start on the first day of the month, some on the financial year start, and Profit by Centre starts on 1 January even if your year starts in another month. Before you compare two reports, read the date range on both.

> Source: `docs/operations/w55-statement-duplicates.md`, `src/Zeyto.Edge/Reports/AmendTrail.cs`, `src/Zeyto.Edge/Api/PartyStatementApi.cs`, `src/Zeyto.Web/src/screens/reports/PartyStatement.tsx`, `src/Zeyto.Web/src/screens/reports/books/AccountStatementBook.tsx`, `src/Zeyto.Web/src/screens/reports/books/VatReturnBook.tsx`, `src/Zeyto.Edge/Reports/DayBooksApi.cs`, `src/Zeyto.Web/src/help/content/reports-books.ts`, `src/Zeyto.Web/src/help/content/reports-statements.ts`

Analysis and dimensions

Most books have two tabs: Report and Analysis. The Report tab is the grid you reconcile against. The Analysis tab answers "what is this made of?" with figure cards and charts, built from the same filters as the grid beside it.

The Analysis tab

- Each block has a `Chart` and `Table` switch. Clicking a bar or row in a chart takes you to the Report tab, filtered to that item.
- Six server-side analyses exist: trade (sales or purchase), stock, party (receivable or payable), tax, ledger (all, cash, ledger or party mode) and financial statements (P and L, balance sheet, trial balance, cash flow, fund flow). Other reports get a generic client-side analysis built from the rows: the 10 largest plus an "Others" slice.
- Stock analysis includes an ABC split on stock value. A is the first 80% of value, B the next 15% and C the rest.
- Sales analysis has a table too. Its columns are Docs, Qty, Amount, VAT, Returns, Net qty, Net amount, Net VAT, Net total, Gross profit and %. The chips By customer, By item, By salesman, By month, By day and Document lines change what a row means.

Not verified in code: speed on a large company. The analysis endpoints were timed on a test company with 385 documents, and the dark-mode look of the Analysis tabs was not reviewed.

Profitability screens

The screens under Reports that start with a name rather than a ledger answer management questions: Item Profitability, Customer Profitability, Salesman Scorecard, Supplier Intelligence, Exception Centre, Profit by Dimension and Working Capital. Item Profitability sorts each item into a class by margin, using fixed thresholds: Star above 35%, Core from 8% up to 35%, Drain below 8%, and Below cost under zero. Profit by Dimension uses the same classes for category, brand, item group or variant.

Cost on these screens is the stock cost frozen on the line when the document was submitted, not today's cost. Returns are taken off. The screens read only.

Dimensions: cost, job and project centres

Dimensions tag postings with a cost centre, a job centre or a project centre so that a report can cut the same ledger a second way. Turn each one on in `Settings ▸ Document Entry` with its company-wide Enable switch. For every form you then set a rule: Optional, Required or Hidden. A Required rule is enforced when the document is posted, so a missing centre stops the posting with a plain message. On item documents the centres can be set on each line.

REPORT	WHAT IT CUTS BY	HOW IT BEHAVES
Profit by Centre	Cut by: Cost centre, Job centre or Project centre	One row per centre with Income, Expense and Net Profit. Postings with no centre of that kind land on a row called (no centre), so the rows add up to the whole Profit & Loss for the same dates. Only income and expense accounts count.
Profit by Dimension	Category, Brand, Item Group or Variant	Revenue, % of Rev, Gross Profit, % of GP, GP %, Qty and Health. Items with no category show as Uncategorised, Unbranded, Ungrouped or Unspecified.
General Ledger, Posting Trail	Cost, Job and Project centre filters	List the raw rows for one centre, so you can see what makes up a Profit by Centre line.

TIP

If Profit by Centre shows a large (no centre) row, your rule for that form is Optional and people skipped it. Set the rule to Required for the forms that matter, then fix the old postings by looking them up in Posting Trail with the centre filter empty.

ILLUSTRATIVE FIGURES

Reading Item Profitability for one line

You sell 5 units at 30.00 each, cost 10.00 each. Revenue is 150.00 without VAT, cost is 50.00 and gross profit is 100.00. The margin is 100.00 divided by 150.00, which is 66.7%. That is above 35%, so the item is a Star. If the same units had sold at 10.50, revenue would be 52.50, profit 2.50 and the margin 4.8%, below 8%, so the item would be a Drain. The class is a label on the margin, nothing more: it does not change prices or stock.

> Source: `docs/operations/w19-analysis-2026-11-06.md`, `src/Zeyto.Web/src/screens/dimensions/dimensionRules.ts`, `src/Zeyto.Web/src/help/content/reports-catalog-accounting.ts`, `src/Zeyto.Web/src/help/content/reports-intelligence.ts`, `src/Zeyto.Web/src/help/content/reports-books.ts`, `src/Zeyto.Web/src/screens/reports/books/BookShell.tsx`

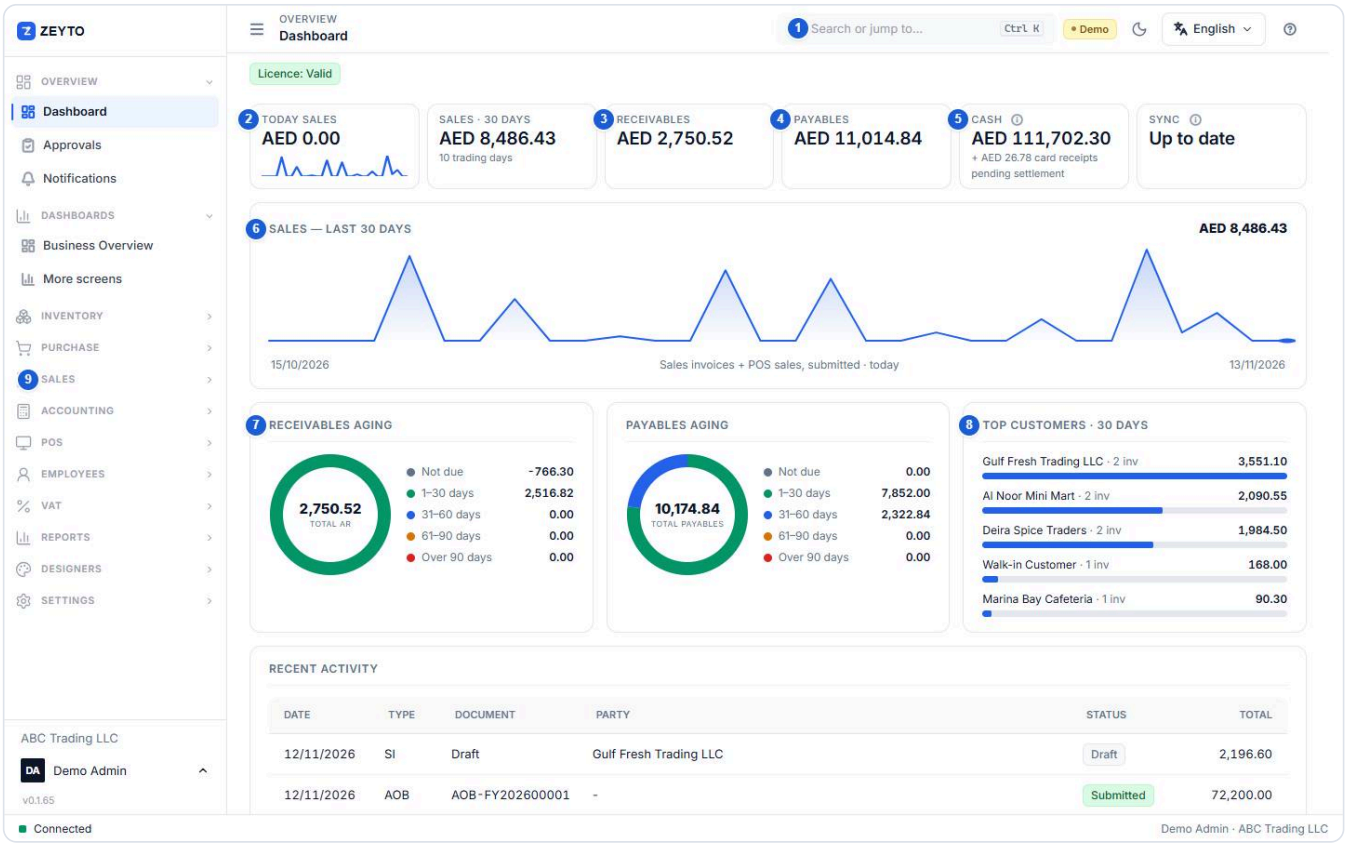
Dashboards and notifications

The Dashboard is the home screen (the first item of the sidebar), and the departments have their own. They are summaries: use a tile to notice something, then open the book behind it to prove it.

MENU GROUP	SCREENS
Overview	Dashboard, Approvals, Notifications
Dashboards	Business Overview in the sidebar, then More screens, behind which the Sales Dashboard, Purchase Dashboard, Finance Dashboard, Inventory Dashboard and Employee Dashboard are kept
Reached from links	Sales Performance, Cash and Liquidity, Receivables Health, Inventory Health, POS Performance

The Dashboard home

Six tiles and five charts. The tiles are Today Sales, Sales · 30 days, Receivables, Payables, Cash and Sync Queue. The charts are Sales, Last 30 Days; Receivables Aging; Payables Aging; Top Customers, 30 Days; and Recent Activity (the last 10 documents). There is no Refresh button: the figures are read again when you open the screen if the last reading is more than half a minute old. Sync Queue checks itself every 15 seconds. The Quick actions bar that used to sit at the top was removed.



The Dashboard of the demo company. Tiles for Today Sales, Sales · 30 days, Receivables, Payables, Cash and Sync. The Cash tile adds a line for card receipts pending settlement. The Sync tile reads "Up to date".

1. Search or jump to (Ctrl K): opens any screen by name.
2. TODAY SALES: the sales invoices of today, with a small trend line.
3. RECEIVABLES: what customers owe.
4. PAYABLES: what you owe suppliers.
5. CASH: cash and bank, with card receipts waiting for settlement under it.
6. SALES - LAST 30 DAYS: the daily sales line. The note under it says sales invoices and POS sales, submitted.
7. RECEIVABLES AGING: the ring and the list of age buckets for customers. Payables Aging sits beside it.
8. TOP CUSTOMERS, 30 DAYS: the five largest customers with their invoice counts.
9. SALES: a module group of the sidebar, here collapsed.

WARNING

The tiles count in different ways, so they can differ without a mistake. Today Sales counts submitted sales invoices dated today, VAT included, and leaves out POS till sales and any invoice you have amended. Sales · 30 days adds POS sales, includes VAT, leaves out cancelled documents and does not subtract returns. The Sales Dashboard shows revenue without VAT and after returns.

Today Sales, Receivables, Payables and Cash cover the whole company. If your user is limited to some branches, the charts, the ageing rings and Top Customers show those branches only.

ILLUSTRATIVE FIGURES

Why two tiles show different sales

Today you post one sales invoice of 157.50 (150.00 plus 7.50 VAT) and the till rings one POS sale of 105.00 (100.00 plus 5.00 VAT). Today Sales shows 157.50, because the POS sale is not an invoice. Sales · 30 days shows 262.50, because it adds both. If a 52.50 return is posted tomorrow against the invoice, Sales · 30 days still shows 262.50 (returns ignored) while the Sales Dashboard falls to revenue after returns.

Department dashboards

The Sales, Purchase, Finance, Inventory and Employee dashboards share one layout. At the top are From and To dates and quick buttons: Today, This month, Last month, Last 3 months, This year. Next to them are a Trend choice and a `Refresh` button. A status chip says Live, Partly loaded or Licensed feature (the section needs a licence you do not have). A bar along the bottom lists PERIOD, SOURCE and SECTIONS, so you can see which dates and which source a number comes from.

Business Overview (`Dashboards ▸ Business Overview`) has the tabs Today, Sales, Cash and money owed, Stock and Profit, with `Refresh`, `Print` and More views.

KNOWN DEFECT

The help for the Sales Dashboard admits that the Receivables ring fills its "Not yet due" slice from the 1 to 30 days column. Until that is fixed, read the ageing from the Aging book, not from that ring.

Notifications

`Overview ▸ Notifications` has two tabs: Inbox and My reminders. In the Inbox you can filter to Unread only and press `Mark all read`. Each row belongs to one of these kinds: Approval, Escalated, Workflow, Overdue invoice, Overdue order, Low stock, Expiry, Cheque due and My reminder. In My reminders you press `Add reminder`, give it a date with "Remind me on", and press `Done` or `Delete` when finished. The inbox refreshes every 60 seconds. The company's daily reminders are switched on in `Settings ▸ Reminders`, where `Run now` sends them at once.

Treat a notification as a pointer. Open the document or book it names to see the figures.

> Source: `src/Zeyto.Web/src/screens/nav.ts`, `src/Zeyto.Web/src/help/content/overview-dashboards.ts`, `src/Zeyto.Web/src/help/content/analytics-ops.ts`, `src/Zeyto.Web/src/screens/notifications/NotificationsInbox.tsx`, `src/Zeyto.Web/src/screens/Dashboard.tsx`, `docs/operations/w52-dashboard-no-quick-actions.md`

One sale, eight reports

Here is the owner's rule made visible. We post one sales invoice and then read where its numbers land. The scenario is the one the automated tests post and assert (the "Golden" company, customer Golden Customer, item Golden Stock Item A). The tests assert the invoice total of 157.50, the cost of goods of 50.00 and that the stock value equals the Inventory account. The other figures below are the direct arithmetic of the same posting.

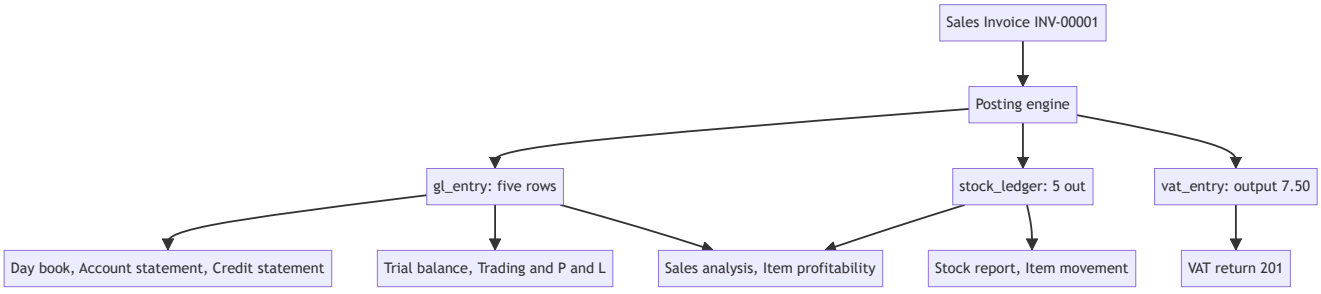
ILLUSTRATIVE FIGURES

Invoice INV-00001, 15/03/2026

Opening stock is 10 units at 10.00. You sell 5 units of Golden Stock Item A at 30.00 each to Golden Customer, with 5% VAT, customer LPO reference LPO-777. Taxable amount 5 × 30.00 = 150.00. VAT 5% of 150.00 = 7.50. Total 157.50. Stock cost 5 × 10.00 = 50.00. The posting is:

ACCOUNT	DR	CR
1200 Trade Receivables (Golden Customer)	157.50	
4000 Sales		150.00
2200 VAT Output		7.50
5000 Cost of Goods Sold	50.00	
1300 Inventory		50.00
Total	**207.50**	**207.50**

Debits and credits both total 207.50. The stock cost is booked at the moving average cost of 10.00 at the moment of sale.



One posting, many readers. The engine writes once. Every report below reads the rows it needs from the stores it needs.

Where each number appears

REPORT	WHAT IT SHOWS FOR THIS INVOICE
1. Day book	One row for the voucher type SI. Amount 157.50. The Day book shows the document total, not the sum of the five debits (207.50).
2. Account statement (Golden Customer)	Debit 157.50, closing balance 157.50 Dr. The LPO column shows LPO-777.
3. Credit statement	For this customer: Total 157.50, Received 0.00, Balance 157.50. The headline Net receivable rises by 157.50.
4. Sales analysis	Docs 1, Qty 5, Amount 150.00, VAT 7.50, Net total 157.50, Gross profit 100.00.

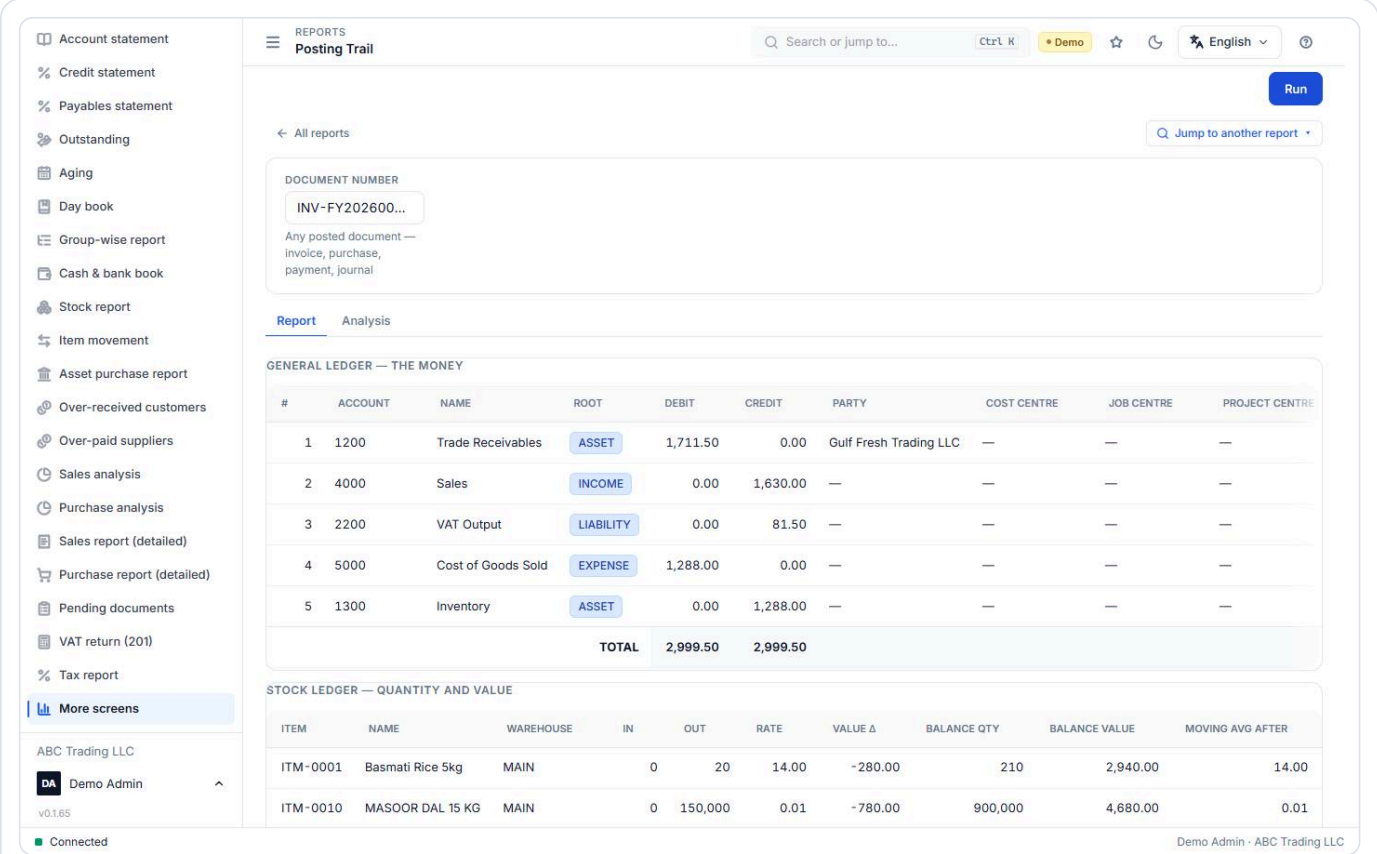
REPORT	WHAT IT SHOWS FOR THIS INVOICE
5. Stock report	Opening 10, Out 5, Closing 5, rate 10.00, value 50.00. The value equals the Inventory account balance.
6. VAT return (201)	150.00 taxable and 7.50 VAT on the line for the invoice's emirate, 7.50 in the output total, and 7.50 net VAT payable if there is no input VAT in the period.
7. Trial balance	The sale adds Dr 157.50 to Trade Receivables, Cr 150.00 to Sales, Cr 7.50 to VAT Output, Dr 50.00 to Cost of Goods Sold and Cr 50.00 to Inventory. Inventory closes at 50.00 Dr because the opening stock of 100.00 is in the same account.
8. Trading & profit and loss	Income 150.00, cost of goods sold 50.00, gross profit 100.00. VAT is not income, so it does not appear.

Several more screens move at the same instant:

- **Outstanding** lists the invoice as an open bill of 157.50. How it falls in Aging depends on the due date from the customer's payment terms, so open Aging and read the bucket yourself.
- **Item movement** for Golden Stock Item A shows an out movement of 5 at the sale rate 30.00 and a balance of 5.
- **Sales report (detailed)** shows profit as 100.00, or 66.67% of the taxable amount (100.00 divided by 150.00).
- **Item Profitability** shows revenue 150.00, cost 50.00, gross profit 100.00 and a margin of 66.7%, which is a Star.
- **Dashboard** shows the invoice in Today Sales (157.50) if it is dated today, in Receivables, and in Recent Activity.
- **Notifications** raises an Overdue invoice once the due date passes without a receipt.

The same trace on a real demo document

The Posting Trail report lists, for any posted document, every general ledger, stock ledger and VAT row it wrote. Here it is for the first invoice of the demo company. The numbers differ from the example above, but the shape is identical: a debit to Trade Receivables for the total, credits to Sales and VAT Output, and a cost of goods sold row against the Inventory account.



Posting Trail for INV-FY202600001. Under "General ledger, the money": Trade Receivables 1,711.50 debit (party Gulf Fresh Trading LLC), Sales 1,630.00 credit, VAT Output 81.50 credit, Cost of Goods Sold 1,288.00 debit and Inventory 1,288.00 credit. Both totals are 2,999.50. Below starts the stock ledger with quantity out, rate and balance per item.

Tutorial: prove it yourself

1. **Note the starting figures.** Open the Trial balance from the Financial tab of the `Reports` home and write down Trade Receivables, Sales, VAT Output, Cost of Goods Sold and Inventory.
2. **Post the invoice.** Create and submit a Sales Invoice for one item with 5% VAT. Write down the total, the VAT and the stock cost of the line.
3. **Re-open the Trial balance.** Each of the five accounts moved by exactly the amounts in the journal. Total debits still equal total credits.
4. **Open the Day book** for today. The invoice has one row and the Amount equals the document total.
5. **Open the Stock report** for the item. Out increased by the quantity and the value equals the Inventory balance.
6. **Open the VAT return (201)** for the period. The output VAT rose by the invoice's VAT.
7. **Open Sales analysis** and set the same dates. Docs rose by 1, Net total rose by the invoice total.

> Source: `tests/Zeyto.Tests/EmeronReportsParityTests.cs`, `tests/Zeyto.Tests/W19AnalysisTests.cs`, `src/Zeyto.Edge/Reports/DayBooksApi.cs`, `docs/operations/emeron-report-parity.md`, `src/Zeyto.Web/src/help/content/reports-books.ts`, `src/Zeyto.Web/src/help/content/reports-statements.ts`

Check yourself and common mistakes

Check yourself

1. Open the Trial balance and the Balance sheet for the same date. Total debits equal total credits, and Total assets equals TOTAL LIABILITIES + EQUITY.
2. Open the Stock report and the Trial balance for the same date. The total stock value equals the Inventory account.
3. Open the Credit statement and read Net receivable. It equals the unpaid invoices, plus the line "Owed, but not an invoice", less the line "Received, not against an invoice".
4. Pick one amended invoice. In Account statement, tick Show amendment history and check that the net closing balance is the same with the box ticked and cleared.
5. Pick any customer. Open Party Statement and Account statement for the same dates. The closing balance is the same.
6. Compare the VAT return (201) output VAT with the VAT Output account in the Trial balance for the same tax period. They should agree. If they do not, run Data health.
7. Open Profit by Centre for the same dates as Profit & Loss. The total of all rows, including (no centre), equals the Profit & Loss net profit.
8. Find Data health from the search box of the Reports home and run it. Every check passes, or each finding links to the document behind it.

Common mistakes

SYMPTOM	CAUSE	FIX
A statement shows the same invoice more than once	You are reading a raw audit-trail report (General Ledger, Ledger Audit, Posting Trail) or you ticked Show amendment history.	Use the Account statement or Party Statement without the history option, or read the labels in the history view.
Party Statement has no amendment history checkbox	The server supports it but the screen does not send it yet.	Use Account statement and tick Show amendment history.
Two reports disagree on a total	Different default dates, or one counts VAT and the other does not.	Set the same From and To, and read the footnote "How is this calculated?" on each.
The saved view is missing on another computer	Saved views are stored in that browser only.	Save the view again on the other device. There is no shared company store yet.
Today Sales is lower than the till total	Today Sales counts sales invoices only and leaves out POS sales and amended invoices.	Use Sales · 30 days or the POS reports for till sales.
The export lacks a column you wanted	You hid it in "Columns on screen". Exports carry the visible columns.	Open the column chooser, press Show all and export again.
Day book amount does not equal the journal debits	For invoices and similar documents the Amount is the document total. The cost of goods lines are not added.	Open the document or the General Ledger for the full journal.

SYMPTOM	CAUSE	FIX
Profit by Centre has a big (no centre) row	The centre rule on those forms is Optional and the field was left blank.	Set the rule to Required in Settings ▸ Document Entry and fix old postings from Posting Trail.
You look for a customer who paid too much and cannot find them in Aging	Over-received customers and Over-paid suppliers are separate screens.	Open Over-received customers or Over-paid suppliers.

> Source: `src/Zeyto.Web/src/help/content/reports-books-integrity.ts`, `src/Zeyto.Web/src/help/content/reports-books.ts`, `src/Zeyto.Web/src/help/content/reports-statements.ts`, `docs/operations/w55-statement-duplicates.md`, `docs/operations/w13-report-layout-2026-11-06.md`

INSIGHT AND OUTPUT

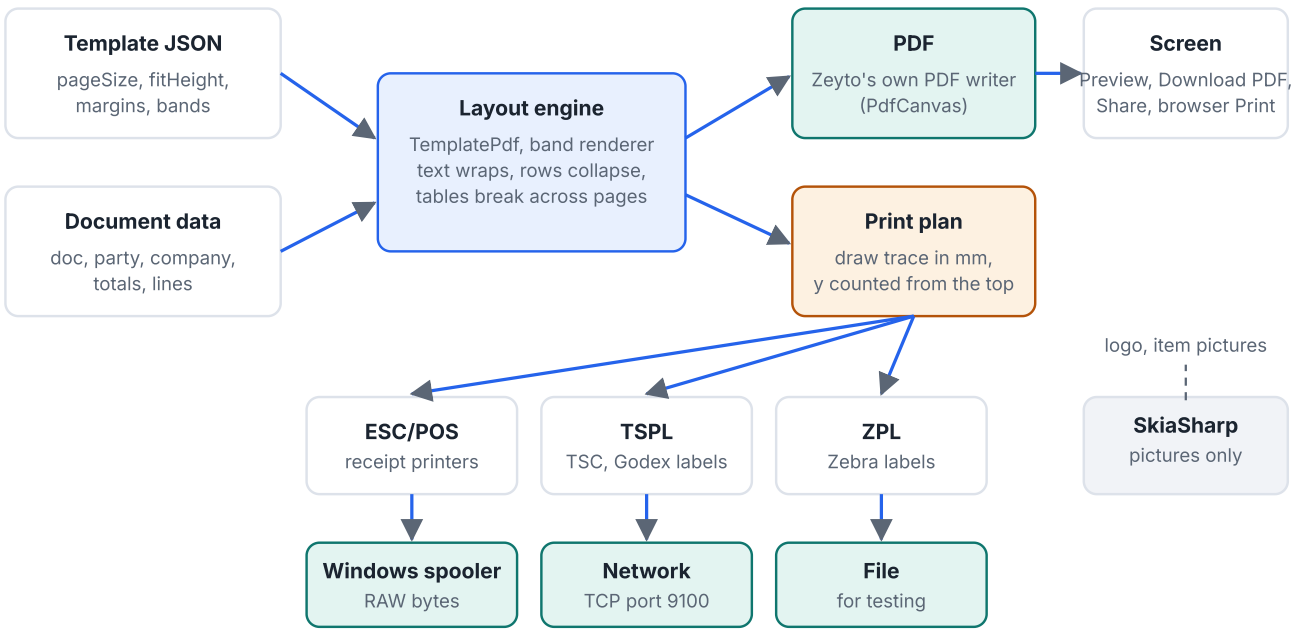
Printing and the designer

After this chapter you can choose the right paper and format for each document, change what a printed invoice shows, design a thermal receipt, connect a receipt or label printer, and know which setting decides what comes out of the printer.

How printing works

Every printed Zeyto document, from an A4 tax invoice to a 40 × 25 mm shelf label, follows the same path. The document's data is read from the database. A template (a small JSON file that describes the page in millimetres) says where each piece of data goes. The layout engine in the Edge service merges the two. The result is either a PDF, or a plan that a printer-language encoder turns into bytes for a receipt or label printer.

Two laws shape everything in this chapter. First, the browser screens never talk to a printer. Edge does that work, so the same print is produced on a phone, a browser or the desktop shell. Second, a printed figure normally comes from the document and the ledgers, not from a calculation in the template. The one exception, formulas in the designer, is explained in the template section.



The render pipeline. The upper exit is the paper-document route (PDF). The lower exit is the direct route for receipt and label printers. Zeyto draws text, lines and tables with its own PDF writer. SkiaSharp is used only to decode, resize and re-encode pictures such as a logo or an item photo.

RULE

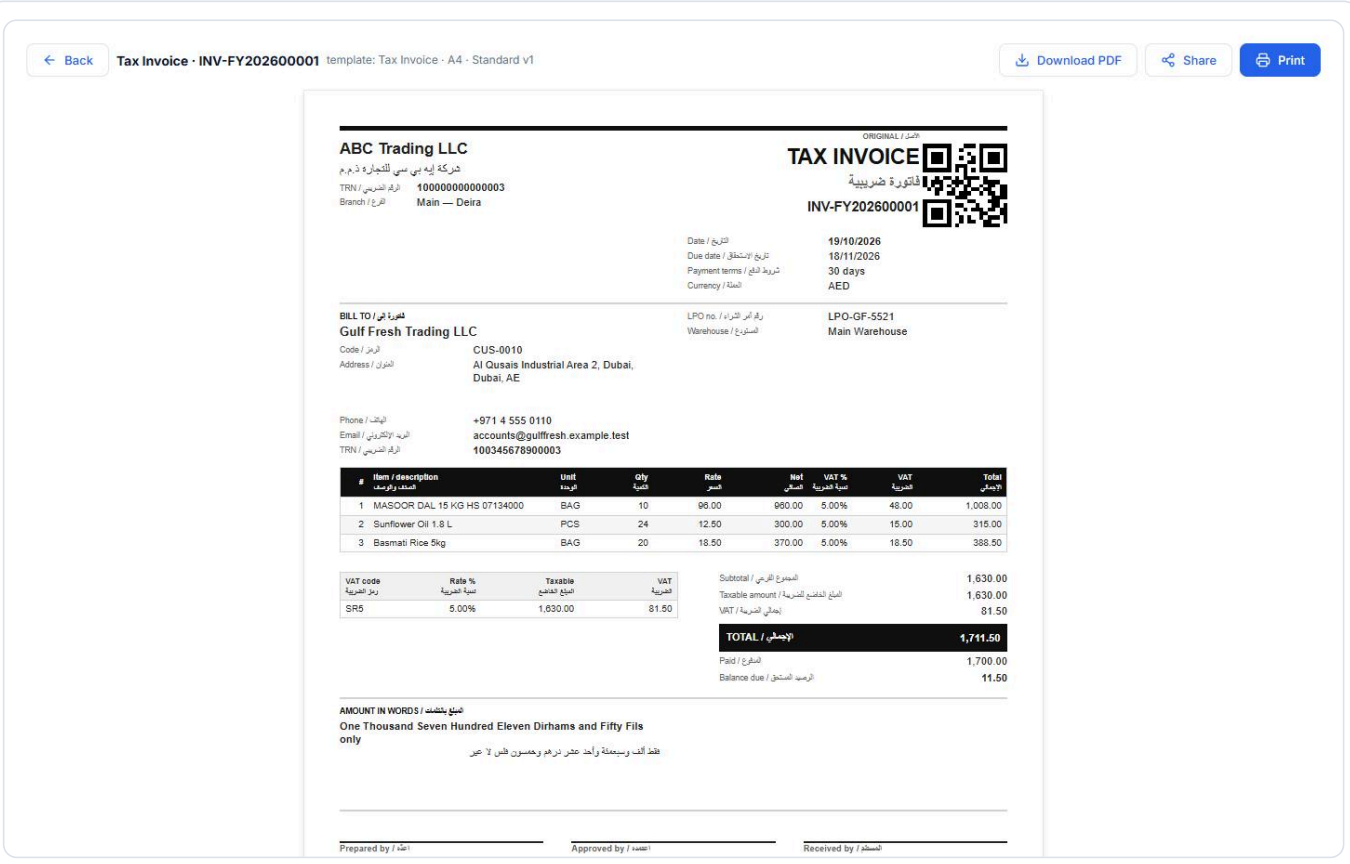
The browser mirror of the engine (the designer canvas and the print preview in the SPA) has to draw exactly what the server draws. The formula engine therefore exists twice, once in C# and once in TypeScript, and a smoke test (`npm run smoke:expr`) checks that they agree. If a preview ever differs from the downloaded PDF, the PDF is right and the difference is a defect to report.

> Source: `src/Zeyto.Edge/Printing/TemplatePdf.cs` , `src/Zeyto.Edge/Printing/SafeImage.cs` , `src/Zeyto.Edge/Printing/TemplateExpr.cs` , `docs/operations/w23-thermal-labels-2026-11-06.md` , `.claude/skills/doc-templates/SKILL.md`

Formats and paper

Zeyto ships stock templates for every printable document. You choose a style, a paper and, for the A4 and A5 styles, the language layout. The company default is set once; the document, branch, customer or the individual user can override it.

PAPER	SIZE	PRINTABLE WIDTH	SIDE INSET	STYLES
A4	210 × 297 mm	190 mm (Emeron style 183 mm)	10 mm (Emeron 13.5 mm)	Standard, Modern, Classic, Emeron, each with an Arabic layout
A5	148 × 210 mm	132 mm	8 mm	Standard, Modern, Classic
Thermal 80 mm roll	80 mm wide	72 mm	4 mm	One layout (no looks, no mirror)
Thermal 58 mm roll	58 mm wide	48 mm	5 mm	One layout (no looks, no mirror)
Labels	Set by the label template, 10 to 300 mm	Whole label	None	Stock Barcode Label 40×25 and Shelf Label 50×30, or your own design



The stock A4 tax invoice. Invoice INV-FY202600001 for Gulf Fresh Trading LLC. Top zone: company and TRN on the left, the title TAX INVOICE with its Arabic twin, a QR code and the number on the right, with ORIGINAL marked above. Then the party block, the table of three lines (Net, VAT %, VAT, Total), a VAT summary by tax code, the totals card (Subtotal 1,630.00, VAT 81.50, TOTAL 1,711.50, Paid 1,700.00, Balance due 11.50), the amount in words in both languages and the signature boxes Prepared by, Approved by and Received by.

How the A5 sheet is made

The A5 templates are not drawn by hand. They are the A4 grid scaled down: horizontal positions by 132 divided by 190, row heights by 0.70, type size by 0.80, with a floor of 5.4 pt so nothing becomes unreadable. Take a 38 mm A4 column. On A5 it becomes 38 × 132 / 190 = 26.4 mm. You do not set any of this. You pick A5 and the engine rescales.

What the stock layouts contain

- **A4 (one grid for every document).** A top zone with the logo and company block on the left and the title (English and Arabic), document number and dates on the right; a middle zone with the party on the left and the references on the right; the line table with its header repeated on every page; a totals zone with a VAT summary table, the totals card and the amount in words; a footer with notes, bank details and signature boxes; and a strip on every sheet with "Generated by Zeyto", the print time and Page x of y.
- **Thermal roll.** One centred column: company block, the title, number, date and customer, the lines, the totals, the amount in words, the QR code and notes. The page is cut to its content ("fitHeight"), so a short receipt is a short strip.
- **Rows that are empty disappear.** Every optional caption and value is a pair that collapses when the value is blank, and the rows below close up. You never see "Phone:" with nothing after it.

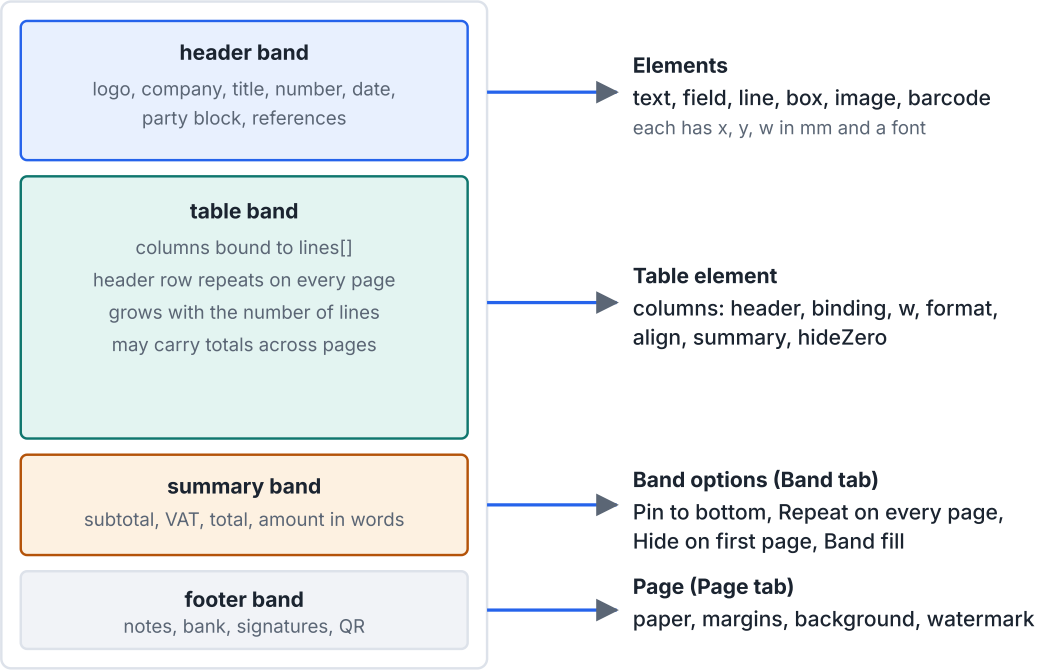
Thermal templates exist for these documents only: Sales Invoice, Sales Return, POS sale, Sales Quotation, Delivery Note, Receipt Voucher, Payment Voucher, Expense and the Daily sales report. Names read like "Tax Invoice · Thermal 80 mm" and "POS Sale · Thermal 80 mm".

> **TIP**
>
> Set the default paper per document type in `Settings ▸ Company Profile ▸ Print Format` (a default format and paper, with an optional per-document format and paper). A shop that issues A4 invoices but prints delivery notes on a roll sets Sales Invoice to A4 and Delivery Note to the 80 mm roll once, and never picks paper again.

> Source: `src/Zeyto.Edge/Printing/PaperFormats.cs`, `src/Zeyto.Edge/Printing/PrintFormatPolicy.cs`, `src/Zeyto.Edge/Printing/StandardLayout.cs`, `src/Zeyto.Edge/Printing/ThermalLayout.cs`, `src/Zeyto.Edge/Printing/TemplateFactory.cs`, `src/Zeyto.Edge/Printing/StockLabels.cs`

The template model

A template is a page, cut into bands. A band is a horizontal strip with a kind (`header`, `table`, `summary` or `footer`) that holds elements placed in millimetres. The renderer fills the bands top to bottom. The table band grows with the number of lines and breaks across pages. The others keep their size, and may collapse parts of themselves when a value is blank.



The band model. Positions are in millimetres from the band's top-left. A roll template has the same four bands in a single centred column. The page height of a roll follows its content.

Elements

ELEMENT	WHAT IT PRINTS	NOTABLE SETTINGS
text	Fixed words, or a formula result.	x, y, w, h, align, font size and weight, wrap, overflow, collapse, visibleWhen.
field	One value from the data dictionary.	binding, format (for example money), hideWhenBlank, plus all text settings.
line	A horizontal rule.	x, y, w, colour, width. There is no vertical rule.
box	A filled or outlined rectangle.	fill, border, radius, stretch.
image	Logo, stamp, signature or item picture.	binding, hideWhenBlank, collapse.
barcode	Code 128 or QR from a bound value.	symbology, binding, w, h.
table	The lines of the document.	binding such as `lines[]`, columns, grid style, cell and row padding, header height, keep-below distance, hide when empty.

Text elements can grow, shrink or cut. The overflow setting has four values: `grow` (the box gets taller and pushes everything below it down), `ellipsis` (cut with three dots), `shrink` (smaller type, down to a floor) and `clip`. Single-line text does not wrap. A table's column widths are reconciled so they always add up to the table width, so an edit to one column cannot leave a gap or overflow the page.

The data dictionary

A field can bind only to a name in the dictionary, never to a database column. The designer Fields list searches them all (281 for the Tax Invoice template in release 0.1.65). The dictionary is at version 18 and only ever grows: a renamed field keeps the old name as a deprecated alias so old templates keep printing. Names are grouped by prefix:

- `doc.*` (86 names in the Document group of the designer Fields list): `doc.docNo`, `doc.date`, `doc.title`, `doc.titleAr`, `doc.supplyDate`, `doc.paymentStatus` (PAID, PARTIAL or UNPAID), `doc.currency`, `doc.fxRate`, `doc.baseCurrency`, `doc.notes` and more.
- `company.*`: `company.logo`, `company.name`, `company.nameAr`, `company.address`, `company.phone`, `company.trn`, `company.bankBlock`.
- `party.*`: `party.name`, `party.nameAr`, `party.trn`, `party.phone`.
- `totals.*`: `totals.subtotal`, `totals.discount`, `totals.taxable`, `totals.vatTotal`, `totals.grandTotal`, `totals.paid`, `totals.balanceDue`, `totals.amountInWordsEn`, `totals.amountInWordsAr`, and the AED twins such as `totals.grandTotalBase`.
- Lists you bind a table to: `lines[]`, `stockLines[]`, `payments[]`, `settled[]`, `statement[]`, `aging[]`, `byMode[]`, `shifts[]`, `topItems[]`.
- Your own values: `custom.*` and `partyCustom.*` (custom fields), and `vars.*` (company text variables set in `Settings ▸ Company Profile ▸ Print Texts`).
- Label fields `item.*`: code, name, nameAr, barcode, price, batch, expiry, unit, brand, category, group, mrp, price2, price3, serial, warehouse, rack, supplier, qty, copies, image, and a secret cost that prints only if you allow it.

In a text you can also write a placeholder such as `{{party.name}}`, with a format after a colon: `:money`, `:qty`, `:date`, `:percent` or `:number`. The `Settings ▸ Templates` screen has a Field Reference (Document Type Registry) with each Binding Path, so you can copy names instead of typing them.

Formulas

A text element can hold a formula instead of fixed words. The formula language is a closed grammar, not a general script: fixed operators and named functions, no loops, no access to anything but the print data. Field names are written plainly or in braces.

GROUP	AVAILABLE
Operators	`+ - * / %`, comparisons `= ≠ < ≤ > ≥`, logic `&& || !` (or the words `and`, `or`)
Logic and numbers	IF (or IIF), AND, OR, NOT, ABS, ROUND, CEIL, FLOOR, POWER, SQRT, MOD, MIN, MAX
Lists	SUM, COUNT, AVG, ROWNUM (or SERIAL)
Text	CONCAT, UPPER, LOWER, TRIM, LEN, COALESCE, FORMAT, AMOUNTINWORDS
Page and time	PAGE, PAGES, PAGEOF, NOW, TODAY, TIME

A formula can be up to 2,000 characters. A formula that fails at print time prints nothing instead of breaking the page. A formula that cannot be parsed is refused when you save the template. The same expressions drive **Visible when**, conditional formatting, **Keep rows where** and row rules, where a result counts as true when it is not empty, not zero and not false. A formula that fails counts as false, so the element is simply hidden.

> **WARNING**
> A formula can print a figure that is different from the one that was posted, for example a total you compute yourself. This is a deliberate owner decision for the designer. Do not compute a VAT or a total in a template on a legal document. Bind `totals.vatTotal` and `totals.grandTotal`, which come from the posted document.

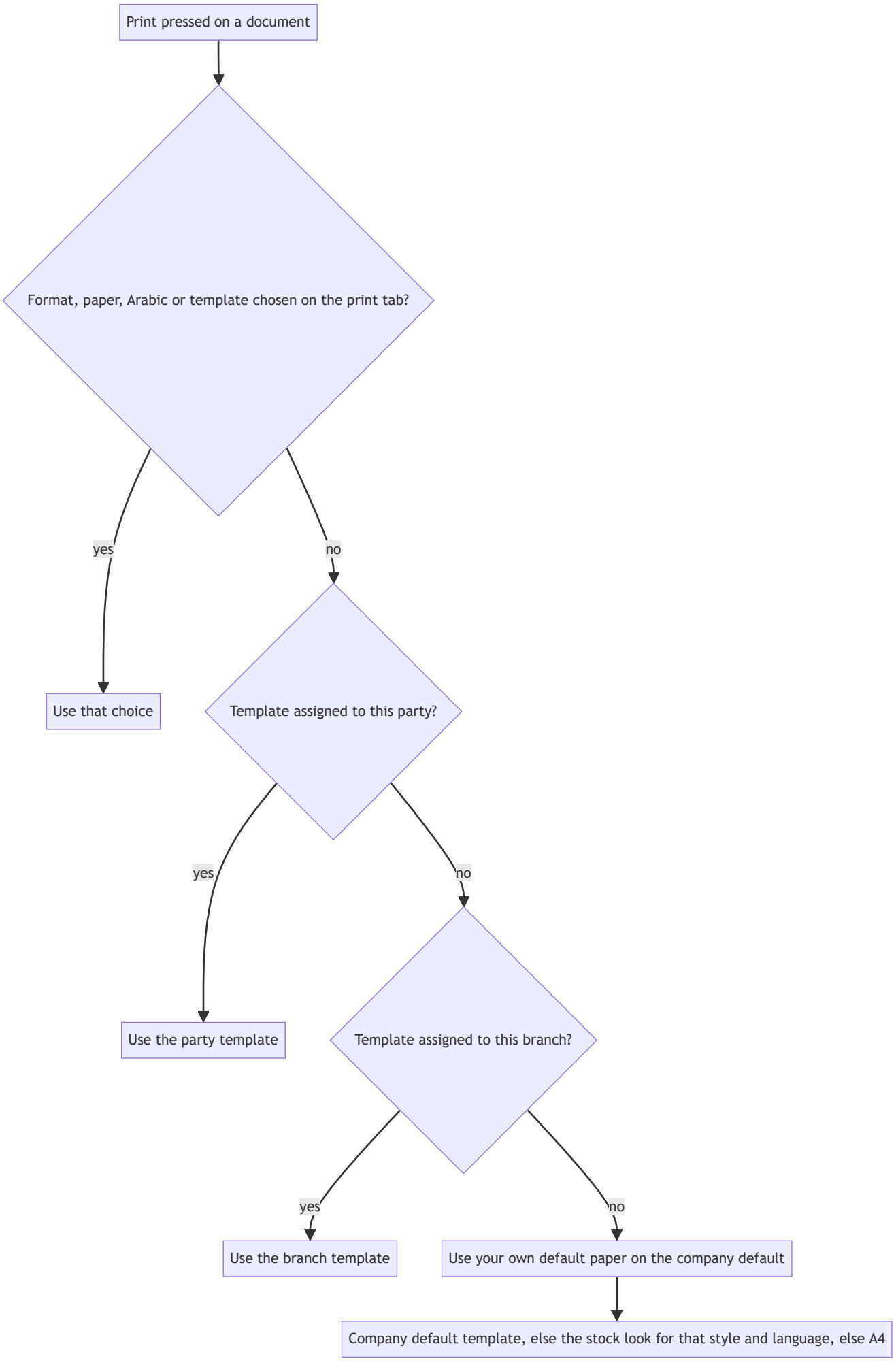
Colour

The stock templates are black ink on white paper, built from a near-black ink, a mid grey for captions and light greys for rules and panels, so they print well on any laser, inkjet or thermal printer. A company can choose a Primary colour and an Accent colour in `Settings ▸ Company Profile ▸ Print Stationery`. Stock templates are then recoloured at print time (light tints of those colours for panels and headers). A template you have edited and saved is a company template, and it is never recoloured behind your back.

> Source: `src/Zeyto.Edge/Printing/Elements.cs`, `src/Zeyto.Edge/Printing/TemplateDictionary.cs`, `src/Zeyto.Edge/Printing/TemplateExpr.cs`, `src/Zeyto.Edge/Printing/BrandTheme.cs`, `docs/operations/w33-designer-freedom-2026-11-07.md`, `docs/operations/w22-print-designer-2026-11-06.md`

Which template prints

When you press Print on a document, Zeyto has to pick one template out of many. The choice follows a fixed order, from your own explicit choice down to the company default.


Print pressed on a document
Format, paper, Arabic or template chosen on the print tab?
yes
no
Use that choice
Template assigned to this party?
yes
no
Use the party template
Template assigned to this branch?
yes
no
Use the branch template
Use your own default paper on the company default
Company default template, else the stock look for that style and language, else A4

The choice order. The first rule that applies wins. The server reports which rule it used (party, branch or default).

Where each choice lives

CHOICE	SET IN	STORED AS
Company default format and paper, and per-document overrides	`Settings ▸ Company Profile ▸ Print Format`	app_setting key `print.format`
Template for one customer or supplier, or for one branch	`Settings ▸ Templates` (Template Assignment)	table `print_template_assignment`
Your own default paper	The "Paper size" box on the print tab	table `print_user_paper`
Printer profiles	`Settings ▸ Printers`	app_setting key `print.printers`
Colours and header height	`Settings ▸ Company Profile ▸ Print Stationery`	company profile

On `Settings ▸ Templates` the Documents tab lists every document type with its default template. You can press Set Default, Edit (opens the designer) or Open Designer, and the Field Reference (Document Type Registry) lists each Binding Path. The Labels tab holds Label Print Settings: Default Copies, Offset X and Y in millimetres, "Ask count", "Print secret cost" and "Enable cost code". The field Default Mode is saved but has no effect today.

`Settings ▸ Company Profile ▸ Print Stationery` has three paper modes: Printed paper, Pre-printed paper and Plain paper. The card has the settings Header image on and Header height, which you use to leave room for a printed letterhead. It also has the Primary and Accent colours. Further down are Discounts on Printed Documents, Print Assets (logo, stamp, signature) and Print Texts (your `vars.*` variables). The "Print format" card also has an "item long description" option and the tick "Print the item code as a small line under the item name". By default the item name prints first and the code does not print.

> **TIP**
> Assigning a template to one customer is how you give a government client a layout with its own purchase-order reference box, and everyone else the standard look. Assign to a branch when a branch has its own letterhead.

> Source: `src/Zeyto.Edge/Api/TemplateManagementApi.cs`, `src/Zeyto.Edge/Printing/PrintFormatPolicy.cs`, `src/Zeyto.Edge/Data/Migrations`, `src/Zeyto.Web/src/help/content/pos-vat-designers.ts`, `docs/operations/w21-print-output-2026-11-06.md`, `docs/operations/w22-print-designer-2026-11-06.md`

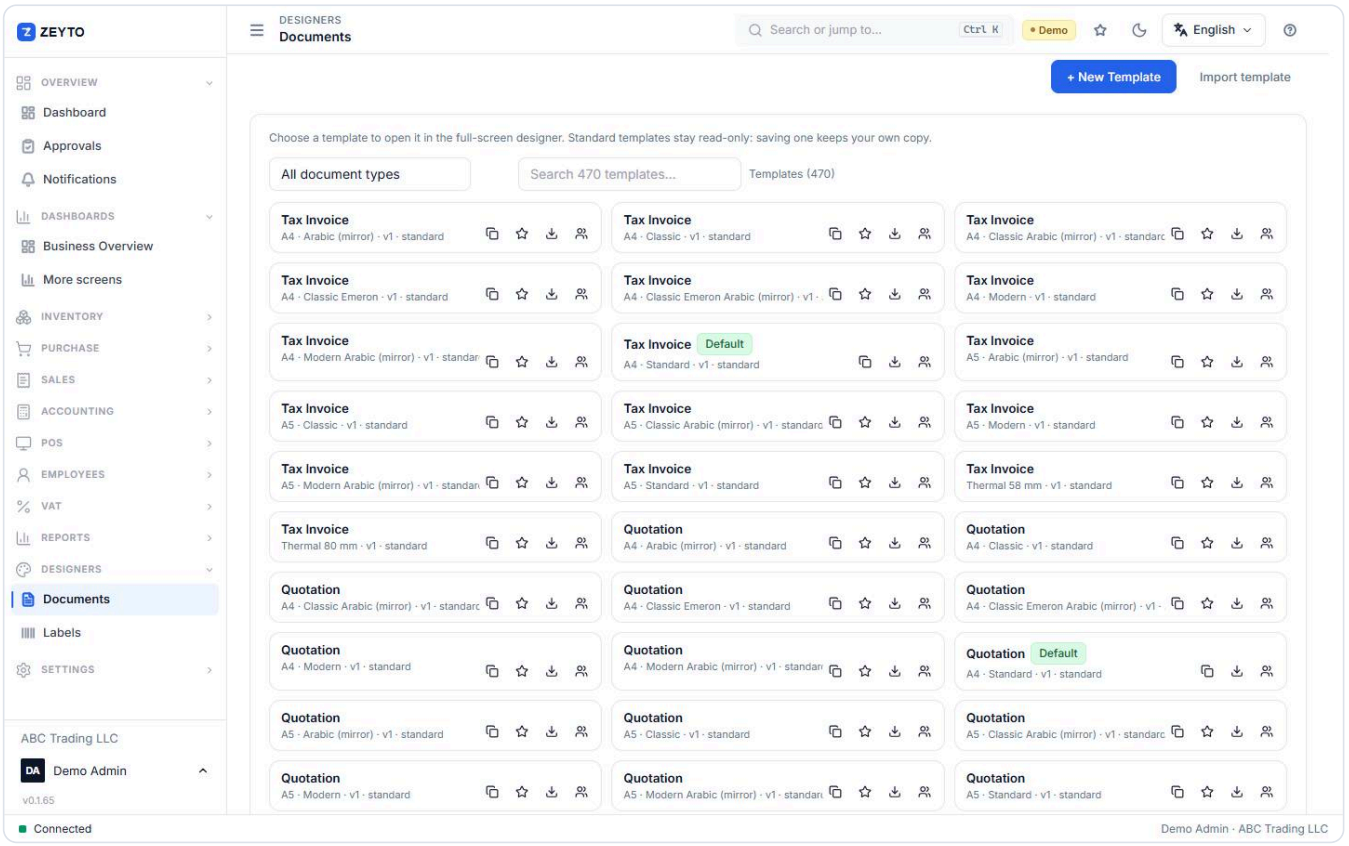
The designer

The designer is where you change a template. Open `Designers ▸ Documents` for page documents and `Designers ▸ Labels` for labels. Both open the library first and the editor second.

The library

The library lists your templates and the stock ones. At the top are `+ New Template` and `Import template`, a filter "All document types" and a search box (in release 0.1.65 the demo company shows 470 templates). Each card has icon buttons: Duplicate, Make default (the star), Export, Assign (the two-people icon, for a customer, supplier or branch) and, on a company template, Delete, which reads Reset to standard when the template overrides a stock one. The default template of

each document type carries a green Default chip. Stock templates are read-only. When you save a change to one, the designer makes a company copy of it, and you can return to the original at any time with Reset to standard.

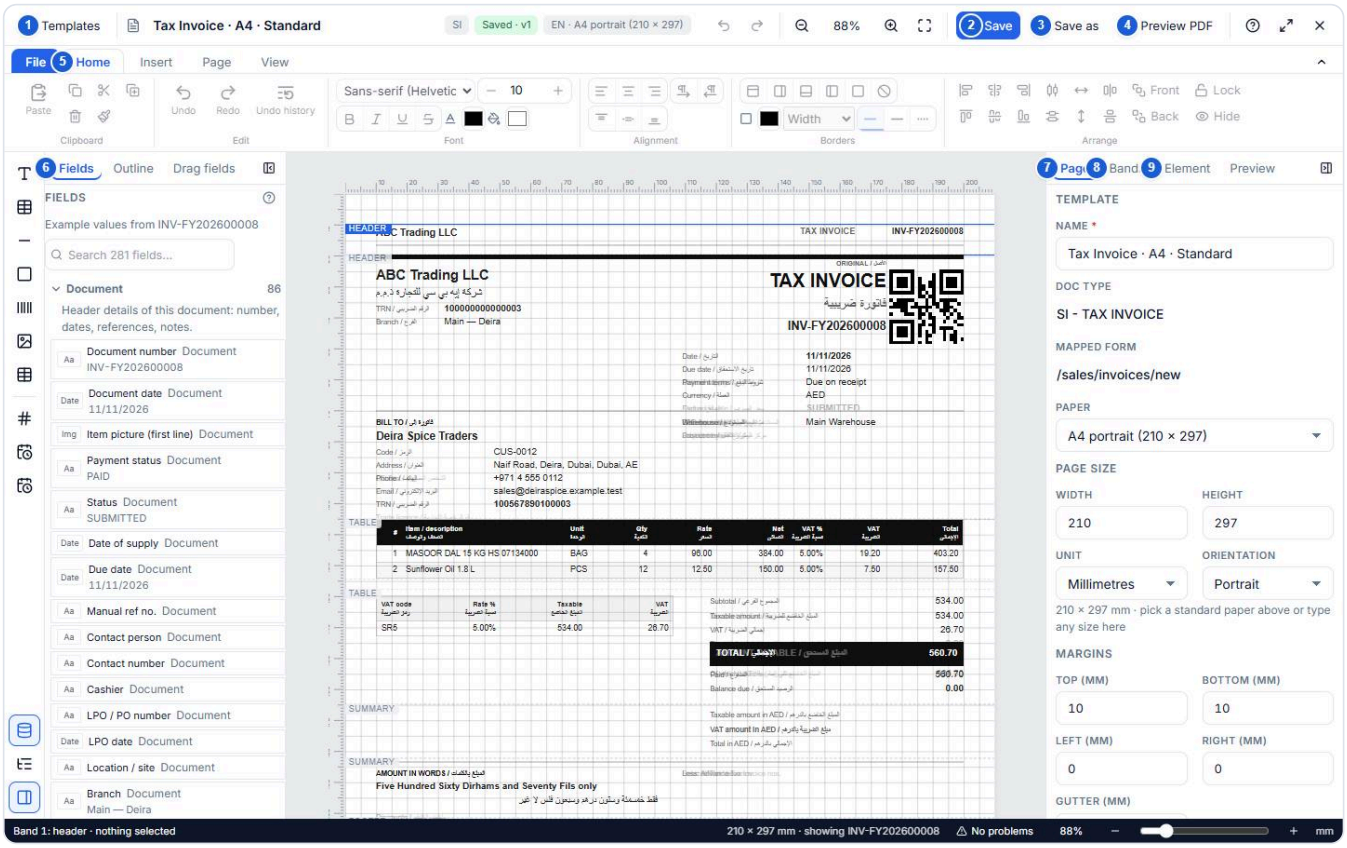


The template library. Cards for Tax Invoice and Quotation in every look: Standard, Modern, Classic and Classic Emeron, each with an Arabic (mirror) version, on A4 and A5, plus Tax Invoice in Thermal 80 mm and Thermal 58 mm. Tax Invoice A4 Standard and Quotation A4 Standard carry the Default chip.



Life of a template. You can always get back to the stock original. A template you made from scratch has no stock original, so Delete removes it.

The editor



The designer, editing the stock Tax Invoice A4 Standard template. The page is drawn with rulers and a millimetre grid, with sample values from a real invoice. The bottom bar says "Band 1: header, nothing selected", the page size and "No problems".

1. Templates: goes back to the library.
2. Save: saves the template. On a stock template this creates your company copy.
3. Save as: saves under a new name.
4. Preview PDF: draws the page with the same engine as the printed PDF.
5. Ribbon tabs: File, Home, Insert, Page and View. Home holds Clipboard, Edit, Font, Alignment, Borders and Arrange.
6. FIELDS: the searchable list of data names, grouped (the Document group has 86). Each shows a sample value.
7. Page: page properties such as name, document type, paper, size, unit and margins.
8. Band: the options of the selected band.
9. Element: the properties of the selected element.

- **Top bar.** Back to Templates, the template name, a chip with the document type (SI), the saved state (Saved, v1), a chip with the language and paper (EN, A4 portrait 210 × 297), Undo and Redo, zoom, `Save` (`Ctrl+S`), `Save as` , `Preview PDF` (`Ctrl+P`), Help, full screen and close. Making a template the default is done in the library, with the star.
- **Ribbon and panels.** The ribbon has File, Home, Insert, Page and View. The left drawer has the tabs Fields, Outline and Drag fields. The right panel has the tabs Page, Band, Element and Preview. The keys `L` , `P` and `B` toggle the left, properties and bottom panels.
- **Fields drawer.** A searchable list of the data dictionary, grouped (Document, and so on). Each entry shows its label, its group and the value it has in the sample invoice. Search for the name you need and add that field.
- **Page tab.** Name, Doc Type (fixed after the first save, shown as for example SI - TAX INVOICE), Mapped Form (the screen the document comes from, such as /sales/invoices/new), Paper (A4, A5, dot-matrix, 80 mm, 58 mm, Custom), Width, Height and Unit (Millimetres), Orientation, the four margins, Gutter, page background, a background picture with Fit, Show

on, Opacity and Scale, a Watermark, and "Choose PDF" for a PDF letterhead (a vector letterhead, up to 2 MB, you pick the page). "Background for other paper sizes" keeps one background per paper size.

- **Band tab.** For the selected band: Report section, Pin to bottom of page, Repeat on every page, Hide on first page and Band fill.
- **Element tab.** For the selected element: Binding, Caption, Formula, Symbology (Code128, EAN-13, Code39, EAN-8, UPC-A, UPC-E, Data Matrix, QR), Format, X, Y, W and H in millimetres, Word wrap, Overflow, **Visible when**, Conditional formatting, **Keep rows where**, **Sort rows**, "Carry totals across pages" and "Columns across the page". Buttons `+ Computed`, `+ Field` and `+ Serial #` add table columns. Rotation 0, 90, 180 or 270 degrees is available on every element except a table.
- **Version history, Export and Import JSON.** The designer keeps a version history of a template. Export writes a file of schema `zeyto.print-template`. Import refuses a file of another schema, a newer version, an unknown document type, any binding outside the dictionary, any script or `javascript:` text, and any rotation other than the four allowed.

The canvas shows a live preview that is drawn by the same engine as the printed page and refreshes in about a second. A PDF letterhead is only marked on the canvas, and the browser-print preview omits pictures and PDF letterheads. `Preview PDF` is the exact result, so use it before you trust any layout.

What blocks a save

Only real errors block a save: a formula that cannot be parsed, or a field that breaks the template rules, answered by the server with plain-words problems (HTTP 422). The Problems list also shows warnings, such as an element that overlaps another or leaves the page. Warnings are an aid, and you can still save.

REAL EXAMPLE

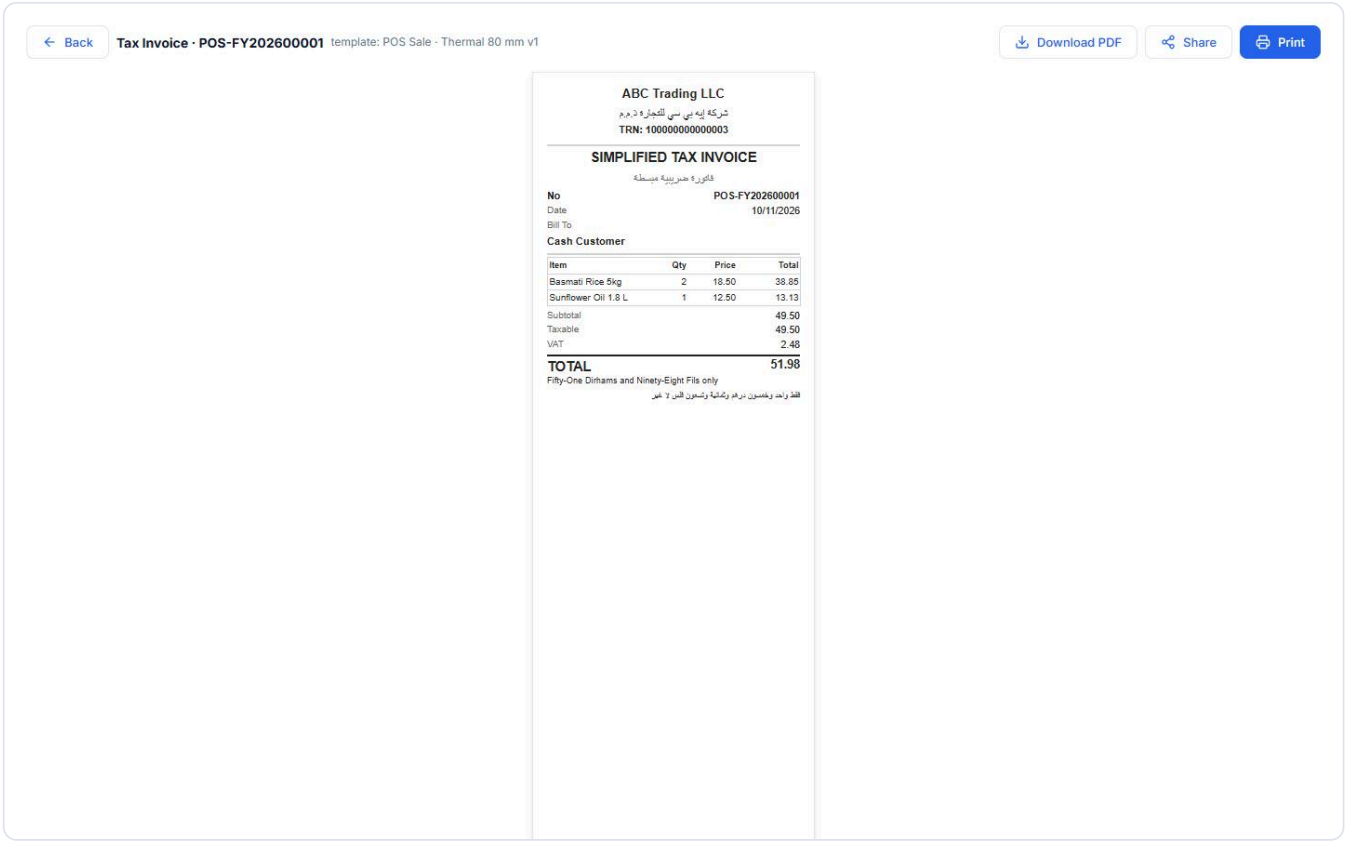
The geometry of the stock 80 mm receipt

This is how the stock "Tax Invoice · Thermal 80 mm" template is laid out. The numbers come from the layout generator, so they are what you see in the designer when you open it.

ITEM	80 MM ROLL	58 MM ROLL
Paper width and side inset	80 mm, 4 mm each side	58 mm, 5 mm each side
Printable width	72 mm	48 mm
Dots per line on an ESC/POS printer	576 (48 characters)	384 (32 characters)
Base type size and row pitch	8 pt, 4.2 mm	7 pt, 3.7 mm
Line table columns (mm)	Item 32, Qty 8, Price 14, Total 18 (sum 72)	Item 22, Qty 8, Total 18 (sum 48), Price dropped
QR code	22 mm square, centred at x 29	22 mm square, centred at x 18
Page height	Cut to the content ("fitHeight"), margins top 4 and bottom 4	

Check the arithmetic: an 80 mm printer prints 72 mm, which at 8 dots per millimetre is 576 dots. The 58 mm printer prints 48 mm, which is 384 dots. The QR on 80 mm sits at 4 + (72 − 22) / 2 = 29 mm from the left edge.

The header band holds, from the top: the logo (30 × 12 mm, centred, hidden when you have none), the company name at 10 pt bold, the Arabic name, address, phone, the TRN line and a rule, then the title **SIMPLIFIED TAX INVOICE** with its Arabic twin for a Sales Invoice or POS sale, then caption and value pairs for No, Date, Ref, the party name and TRN, Terms, Salesperson and Currency. The table band uses 7.5 pt type with a 7 pt header, 1.8 mm row padding and thin row lines, and keeps the last rows together with the totals (30 mm). The summary band lists Subtotal, Discount, Taxable, VAT, Rounding, a rule, TOTAL at 11 pt bold, the AED lines for a foreign-currency invoice, Paid and Balance due, then the amount in words in English and Arabic. The footer holds a rule, the QR, the notes, "Prepared by" and "Generated by Zeyto ERP". Every pair collapses when its value is blank.



The stock 80 mm receipt for a POS sale. Template: POS Sale · Thermal 80 mm v1. The page is narrow. Company name in English and Arabic and the TRN, then SIMPLIFIED TAX INVOICE with its Arabic twin, the No and Date pairs and Bill To. The two lines show Item, Qty, Price and a Total that includes VAT (Basmati Rice 5kg, 2 at 18.50, total 38.85). The totals are Subtotal 49.50, Taxable 49.50, VAT 2.48 and TOTAL 51.98, then the amount in words in English and Arabic. Phone, Ref and the other pairs are blank, so they collapse. This capture shows the top of the page.

Tutorial: design a thermal receipt

You will take the stock 80 mm look, add a "balance due" warning that appears only on unpaid sales, and make the result your default for Sales Invoice.

1. **Open the library.** Go to `Designers ▸ Documents` and press `+ New Template`.
2. **Choose the starting point.** In the wizard set the document to Tax Invoice. Under "Start from" choose the stock look **Tax Invoice · Thermal 80 mm** rather than Blank page. Name it "Counter receipt" and press `Create and open`.
3. **Check the page.** On the Page tab confirm Paper shows 80 mm. The Doc Type is now fixed for this template.
4. **Add the warning.** On the Insert tab add a Text element. Type *BALANCE DUE - PLEASE PAY*. Set the width to 72 mm and centre it. Place it under the amount in words.
5. **Make it conditional.** With the text selected open the Element tab. In **Visible when** type `{totals.balanceDue} > 0`. The text now prints only when there is a balance.
6. **Show the payment status.** Add a Field element bound to `doc.paymentStatus`, centred below it. It prints PAID, PARTIAL or UNPAID.
7. **Look at the Problems panel.** Fix anything marked as an error. Warnings about overlap tell

you to nudge an element.

8. **Preview.** Press `Preview PDF` (`Ctrl+P`). Check an unpaid invoice shows the warning and a paid one does not. Pick different documents to test both.

9. **Save and make it default.** Press `Save` (`Ctrl+S`). Go back to the library with `Templates` and press the star (Make default) on the "Counter receipt" card.

10. **Print.** Open a posted Sales Invoice, go to its print tab, choose the 80 mm roll in Paper size, and print. If you have connected a receipt printer (next section), press `Print on` your printer.

What the designer stores for the two elements you added is small and readable. The y values depend on where you dropped them:

```
{ "kind": "text", "text": "BALANCE DUE - PLEASE PAY",
  "visibleWhen": "{totals.balanceDue} > 0",
  "x": 4, "y": 1, "w": 72, "h": 4.2, "align": "center",
  "wrap": false, "overflow": "shrink", "font": { "size": 8 } }

{ "kind": "field", "binding": "doc.paymentStatus",
  "x": 4, "y": 5.2, "w": 72, "h": 4.2, "align": "center",
  "font": { "size": 8 } }
```

> **TIP**
> Test with a long customer name and with 30 lines. Text wraps and the table breaks across pages, but only a test on your own paper tells you whether the result looks right to your customers.

> Source: `src/Zeyto.Edge/Printing/ThermalLayout.cs`, `src/Zeyto.Edge/Printing/PaperFormats.cs`, `src/Zeyto.Web/src/screens/designer/DesignerLibrary.tsx`, `src/Zeyto.Web/src/help/content/pos-vat-designers.ts`, `docs/operations/w22-print-designer-2026-11-06.md`, `docs/operations/w33-designer-freedom-2026-11-07.md`, `docs/operations/w34-designer-gaps-2026-11-07.md`

Printing a document: preview, language and tax rules

The print tab

Every document form has a Print action. It opens the print tab for that document (a route of the form `/print/doc?...`). The buttons are Back, Download PDF, Share, Print and, when a printer profile exists, `Print on` followed by the printer's name. When you open the print tab without a fixed template, selectors **Print format** and **Paper size** and a checkbox **Arabic layout** appear above the page. The checkbox is disabled on a roll because a roll has one layout. Your choice is remembered for you in that browser. When a template is named in the link (as in the pictures here), the page shows only the title, the line "template: ..." with the template name and version, and the buttons Download PDF, Share and Print.

Printing automatically

- `Settings ▸ Document Entry` has an "After posting" choice: Print the document, Open a preview, or Do nothing.
- On a POS terminal, **POS Behaviour** has "Auto-print receipt on sale" and a Copies box from 1 to 9. F11 opens the cash drawer. The till receipt of the POS Terminal screen is a fixed layout of its own, so a change in the designer does not alter it.

Tax invoices

The printed title depends on the document and the paper:

DOCUMENT	A4 AND A5 TITLE	ROLL TITLE
Sales Invoice	TAX INVOICE	SIMPLIFIED TAX INVOICE
POS sale	TAX INVOICE	SIMPLIFIED TAX INVOICE
Sales Return	TAX CREDIT NOTE	TAX CREDIT NOTE
Advance receipt (VAT charged)	TAX INVOICE (ADVANCE)	
Quotation, proforma, delivery note, purchase order	Their own title, with a caveat that they are not tax invoices	

A genuine tax invoice carries the particulars the UAE VAT rules require: supplier and customer name and address, TRN, the invoice number and date, the date of supply, details of each line, the gross total, the total VAT, the AED rate when the invoice is in another currency, and the amount in words. These particulars are printed on tax invoices only. A foreign-currency invoice also prints the taxable amount, VAT and total in AED, read from the frozen VAT rows so that they tie to the VAT return.

- Documents that need copy marking print ORIGINAL or DUPLICATE: Sales Invoice, Sales Return, POS, Delivery Note and Goods Receipt.
- For a non-posting advance tax invoice (series ATI-, ATP-, ACN-, ADN-) VAT is counted once, on the advance receipt or payment, so the paper never adds VAT to your VAT return a second time.
- The statement of account prints an Advance column and a bank block, and the "please remit to the bank account shown" sentence only when the company has bank details.

WHAT THE QR CODE CONTAINS

Sales Invoice, Sales Return and POS prints carry a QR code. Today every stock layout encodes the document number (`doc.docNo`) in it. The code comments call it an FTA QR, but this chapter does not claim it is the FTA tax payload. If your authority requires a specific QR format, check that with your accountant before relying on it. The delivery note and other non-tax documents have no QR.

English and Arabic on one page

The stock tax invoice prints English and Arabic together: the title, the company name, the party name and the amount in words each have an Arabic twin. The "Arabic layout" variant of each A4 style mirrors the whole page (every position is reflected across the page and the Arabic caption is written first) while number columns and the order of the line-grid columns never mirror. On a roll, one column carries both languages. New Arabic wording waits for the owner's approval before a release.

ILLUSTRATIVE FIGURES

Foreign-currency invoice with AED lines

You invoice 400.00 USD plus 5% VAT (20.00 USD) at the rate 3.6725. The invoice shows USD 420.00. Its AED taxable amount is 400.00 × 3.6725 = 1,469.00, the AED VAT is 20.00 × 3.6725 = 73.45 and the AED total is 1,542.45. These are the figures printed in "Taxable amount in AED", "VAT amount in AED" and "Total in AED", and they are the same figures that go to the VAT return because the print reads them from the frozen VAT rows rather than recalculating.

> Source: `src/Zeyto.Edge/Printing/DocProfiles.cs` , `src/Zeyto.Edge/Printing/TemplateFactory.cs` , `src/Zeyto.Edge/Printing/StandardLayout.cs` , `src/Zeyto.Web/src/screens/designer/PrintDoc.tsx` , `docs/operations/w21-`

> `print-output-2026-11-06.md`, `docs/operations/w24-advance-tax-invoice-2026-11-06.md`, `.claude/skills/thermal-print/SKILL.md`

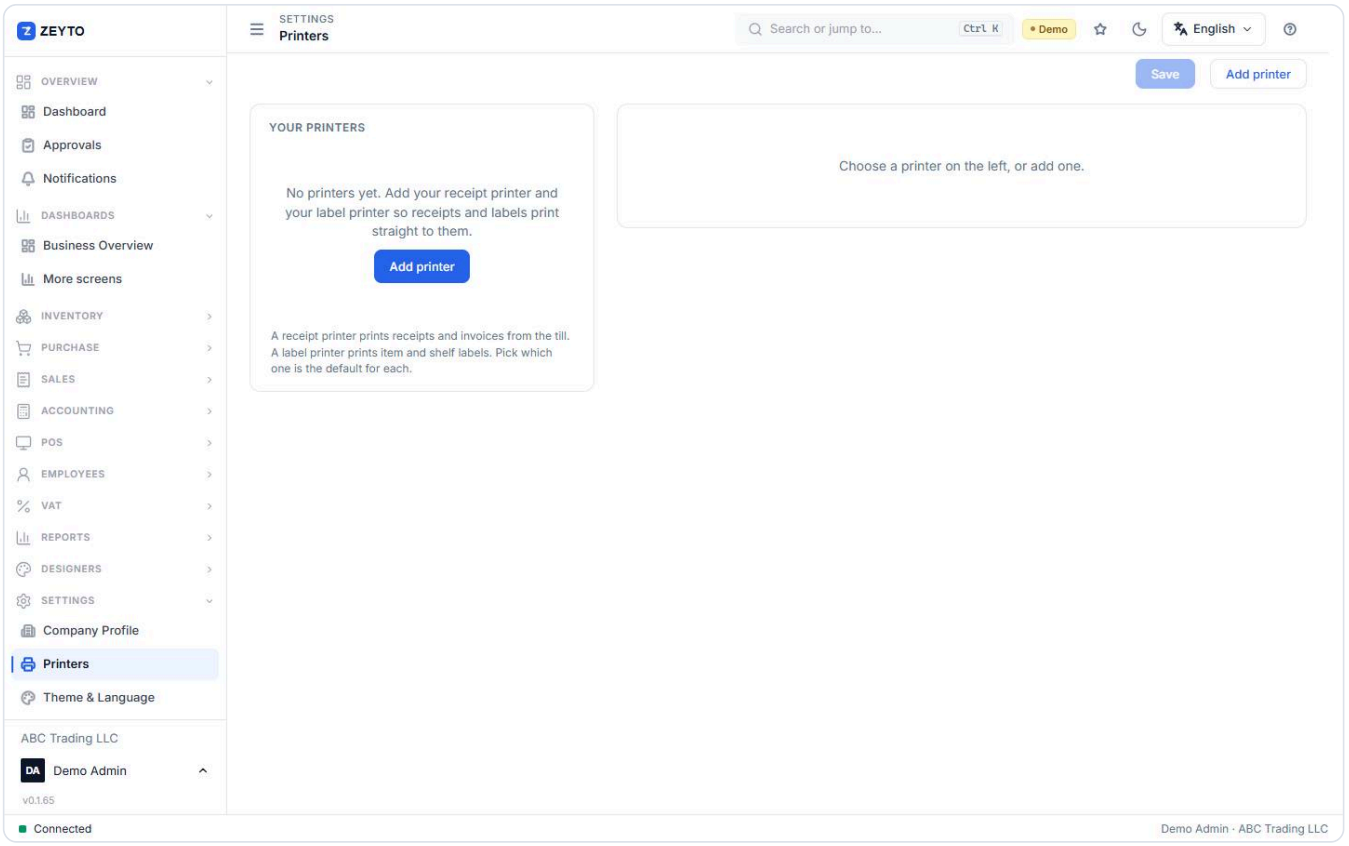
Printers, barcodes and labels

A page printer is easy: the browser or the PDF viewer sends a finished page to the Windows driver. A receipt printer or a label printer is different. Each one speaks its own command language, and Zeyto sends it those commands directly. The great benefit is that the printer draws the barcode itself, sharp and scannable, instead of printing a picture of one.

The three printer languages

PRINTER TYPE IN ZEYTO	LANGUAGE	TYPICAL DEVICES	WHAT IT DOES
Receipt printer (ESC/POS)	ESC/POS	80 mm and 58 mm till printers	Native Code 128, EAN-13, EAN-8, Code 39 and QR. A logo and any Arabic text are sent as a picture. Partial cut after each receipt. The cash drawer pulse is sent only when asked.
Label printer (TSPL - TSC, Godex, many others)	TSPL	TSC, Godex and similar	Sets the label size, gap and darkness, then draws text, barcodes (including QR and Data Matrix) and pictures, then prints the number of copies.
Label printer (ZPL - Zebra)	ZPL	Zebra	The same job in Zebra's language.
Windows printer (prints through the browser)	None	Any laser or inkjet printer, or a receipt printer you prefer to drive with its Windows driver	The page is made as a PDF and printed from the browser.
PDF file	None	No device	Writes a PDF.

> **NOTE ON GDI**
> Project papers sometimes say "GDI". The product has no printer type with that name. The Windows printer profile, which prints through the browser and the Windows driver, is the nearest thing to it.

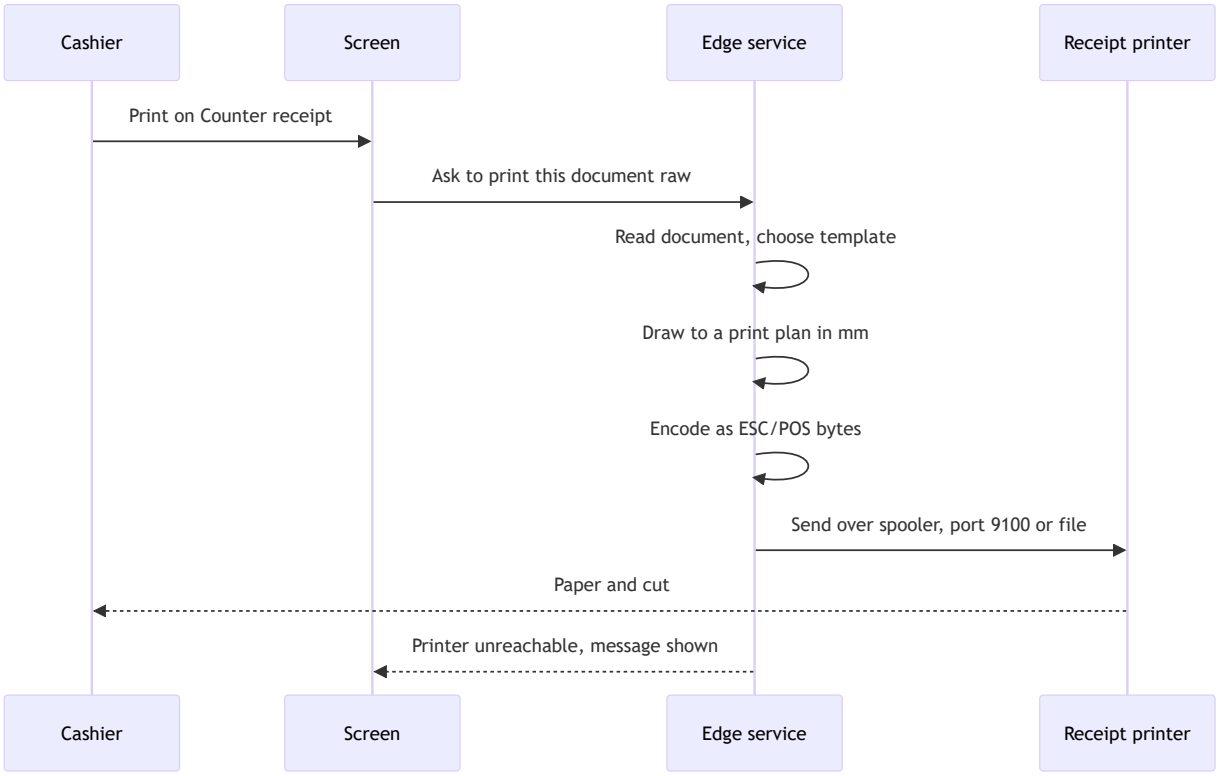


Settings ▸ Printers before any printer is added. The list on the left reads "No printers yet. Add your receipt printer and your label printer so receipts and labels print straight to them." The right side says "Choose a printer on the left, or add one." Save stays grey until you change something, and Add printer is at the top right.

Tutorial: add a receipt printer

1. **Open the screen.** Go to `Settings ▸ Printers` and press `Add printer`.
2. **Name and type.** Type a Name such as "Counter receipt". Under Type choose **Receipt printer (ESC/POS)**.
3. **Connection.** Under Connected by choose **USB or Windows printer** and pick the printer by the name Windows shows. For a network printer choose **Network address (IP, port 9100)** and fill Printer address and Port.
4. **Paper.** Choose the Paper width of your roll, 80 mm or 58 mm. The Character set (for example CP437, CP858 or CP1252) is the one your printer's manual names for English text.
5. **Drawer and cut.** Tick **Cut the paper after each receipt** if you want it. Tick **Open the cash drawer with each receipt** only if a drawer is plugged into the printer.
6. **Make it the default.** Tick **Use as the default receipt printer**.
7. **Test.** Press `Print test page`. To see what would be sent without printing, press `Preview test page` and look at the tabs "How it prints", "Commands" and "Raw bytes".
8. **Save.** Press `Save`.

From now on the print tab shows `Print on` and the printer's name. The receipt is made from the template you chose, so the thermal receipt you designed earlier prints exactly as designed.



One receipt, step by step. The screen never touches the printer. If the printer is off or the address is wrong, Edge answers with a plain message (the code is PRINTER_UNREACHABLE) and nothing is queued: the document is already saved, and you press print again when the printer is back.

Printer settings in words

- **Connected by.** USB or Windows printer sends commands to a printer installed in Windows. Network address sends them over the shop network to port 9100 (the connection waits 5 seconds). File writes them to a file, for testing only.
- **Resolution (dpi).** How fine the printer prints. 203 is the most common, 300 is finer. The profile accepts 152, 200, 203, 300 and 600.
- **Label paper.** Labels with a gap, labels with a black mark, or a continuous roll. **Label width** and **Label height** in millimetres (10 to 300), **Gap between labels** (0 to 20 mm), **Darkness** (0 to 15), **Speed** (inches per second), **Mirror the label** and **Turn the label** (0, 90, 180 or 270 degrees).
- **Move right** and **Move down** in millimetres, up to 20 either way, to correct a print that sits off-centre on the label.
- **Narrowest bar (mm)** and **Refuse to print a barcode that is too narrow to scan**. See the next section.

> **WARNING**
> Zeyto cannot see the paper. After the first test print, scan a barcode with your own scanner. The product's own test notes say that printing on real ESC/POS, TSPL and ZPL hardware was not part of the automated tests.

Barcodes that scan

A barcode is a row of bars of exact widths. The narrowest bar is called the X-dimension. Printers can only print whole dots, so the engine converts millimetres to dots and never goes below a floor.

- The floor is a narrowest bar of 0.25 mm by default (you can set between 0.1 and 1 mm). That is 2 dots at 203 dpi, 3 dots at 300 dpi and 6 dots at 600 dpi.
- Each code keeps empty space around it, the quiet zone: 10 modules for a one-dimensional code, 4 for a QR and 2 for a Data Matrix. A module is one narrowest bar.

- A code with a wrong check digit (for example a bad EAN-13) is refused, not printed.
- If a design asks for bars thinner than the floor, the barcode prints with a warning, or is refused when you tick **Refuse to print a barcode that is too narrow to scan**.

ILLUSTRATIVE FIGURES

Will an EAN-13 fit on a 40 × 25 mm label?

An EAN-13 is 95 modules wide. At the floor of 0.25 mm that is 95 × 0.25 = 23.75 mm. With a quiet zone of 10 modules (2.5 mm) on each side, the code needs 23.75 + 5.00 = 28.75 mm. The label is 40 mm wide, so 11.25 mm is left over and the code fits. On a 300 dpi printer one dot is 25.4 / 300 = 0.0847 mm, so the 0.25 mm bar becomes 3 dots (0.254 mm), and the code is 95 × 3 = 285 dots wide. At 203 dpi the bar is 2 dots (0.2503 mm), and the code is 190 dots wide. Both fit inside a 40 mm label, which is 320 dots wide at 203 dpi.

Labels

Labels use the same template model as documents, with a page that is the size of the label, and item fields (`item.name` , `item.barcode` , `item.price` and the rest of the label dictionary) instead of document fields.

- **Stock labels.** "Barcode Label 40×25" and "Shelf Label 50×30". The barcode is Code 128 bound to `item.barcode` . The name shrinks to fit two lines, and a name that still does not fit ends in three dots rather than running over the barcode. The price is a money field. The shelf label adds brand, unit, a large price, MRP and the item code.
- **Label designer.** `Designers ▸ Labels` works like the document designer. A Media Preset sets the size: 40 × 25, 50 × 25, 50 × 30 or 100 × 50 mm, or you type W and H in millimetres. A sheet preview shows labels laid out many per page.
- **Printing.** Go to `Inventory ▸ Print Labels` , choose the items and the copies, and print. The label dictionary fills brand, unit, category, group, MRP, the second and third price lists, serial, warehouse, rack and supplier. MRP is the rate in the price list named MRP.
- **Secret cost.** A label can print a coded cost for the owner. It prints only if "Print secret cost" is on in `Settings ▸ Templates ▸ Labels` and "Enable cost code" is set.

Tutorial: print shelf labels

1. **Add the printer.** In `Settings ▸ Printers` press `Add printer` and choose **Label printer (TSPL - TSC, Godex, many others)** or **Label printer (ZPL - Zebra)**. Choose the connection as for the receipt printer.
2. **Describe the media.** Type the Label width and Label height of the labels in the printer (for example 50 and 30) and the Gap between labels.
3. **Test.** Press `Print test page` . If the print sits too far to one side, adjust Move right and Move down. Scan the test barcode.
4. **Make it default.** Tick **Use as the default label printer** and press `Save` .
5. **Print.** Open `Inventory ▸ Print Labels` , choose the items and the number of copies, and print. The label screen has a Copies box, and a button `Print from browser instead` if you want to bypass the label printer for one job.

> Source: `src/Zeyto.Web/src/help/content/settings-printers.ts` , `src/Zeyto.Web/src/screens/settings/Printers.tsx` , `src/Zeyto.Edge/Printing/Thermal/PrinterProfile.cs` , `src/Zeyto.Edge/Api/PrintersApi.cs` , `src/Zeyto.Edge/Printing/StockLabels.cs` , `docs/operations/w23-thermal-labels-2026-11-06.md` , `docs/operations/w21-print-output-2026-11-06.md` , `.claude/skills/thermal-print/SKILL.md`

Check yourself and common mistakes

Check yourself

1. Open a posted Sales Invoice. Print it on A4 and then on the 80 mm roll. The total, VAT and amount in words are identical on both.
2. In `Settings ▸ Printers` press `Preview test page` and open the "Commands" tab. You see the commands Zeyto would send, and nothing is printed.
3. Print a test page on your real label printer and scan the barcode with your own scanner. It scans on the first attempt.
4. In the designer press `Preview PDF` for an unpaid invoice and a paid invoice. The balance warning from the tutorial appears on the first only.
5. Assign a template to one customer in `Settings ▸ Templates`. Print one document for that customer and one for another. Only the first uses the assigned template.
6. Edit a stock template and save it. Open it again: it is a company copy. Press Reset to standard and the original is back.
7. Post a foreign-currency invoice. The "VAT amount in AED" on the printout equals the VAT shown for that invoice on the VAT return (201).
8. With the 58 mm roll chosen, the Arabic layout checkbox is disabled, and the QR appears only on invoices, credit notes and POS sales.

Common mistakes

SYMPTOM	CAUSE	FIX
The receipt prints as a normal page through the browser dialog	The printer profile is of type Windows printer (prints through the browser).	Edit the profile and choose Receipt printer (ESC/POS) as the Type.
The receipt is cut off on the right or very narrow	Paper width does not match the roll.	Set Paper width to 80 mm or 58 mm to match the roll.
A message says the printer is unreachable	The printer is off, the address or port is wrong, or Windows has renamed the printer. Nothing is queued.	Check the Printer address and Port 9100, or the Windows printer name, then print again.
The barcode does not scan	Bars thinner than 0.25 mm, too little quiet zone, or a low Darkness setting.	Raise Narrowest bar to 0.25 mm, tick Refuse to print a barcode that is too narrow to scan, and raise Darkness.
The label prints off-centre	The offsets are zero but the stock sits differently.	Use Move right and Move down on the label printer profile.
The cash drawer does not open	The option is off, or the drawer is not plugged into the receipt printer.	Tick Open the cash drawer with each receipt. The till also asks for the drawer on a cash sale.
I changed a template but the invoice looks the same	You saved a copy but did not make it default, or a template assigned to the customer or branch is winning.	Press the star (Make default) in the library, and check Settings ▸ Templates for an assignment.
The preview in the browser has no logo or letterhead	The browser-print preview leaves out pictures and PDF letterheads.	Use Preview PDF in the designer or Download PDF. They are exact.

SYMPTOM	CAUSE	FIX
A printed total differs from the posted invoice	The template computes a total in a formula instead of binding the posted one.	Bind `totals.grandTotal` and `totals.vatTotal`.
The item code does not print on the invoice	The item name prints first and the code is optional.	Tick "Print the item code as a small line under the item name" in Print Format.
The QR scans to the invoice number only	That is what the QR holds today.	Do not rely on it as an FTA payload. Raise it with the owner if your authority needs it.

Not verified in code: printing on real ESC/POS, TSPL and ZPL printers, and the scan success rate on real labels. The product's thermal notes list these checks as still to be done on hardware.

> Source: `src/Zeyto.Web/src/help/content/settings-printers.ts`, `src/Zeyto.Web/src/help/content/pos-vat-designers.ts`, `docs/operations/w23-thermal-labels-2026-11-06.md`, `docs/operations/w22-print-designer-2026-11-06.md`, `docs/operations/w34-designer-gaps-2026-11-07.md`

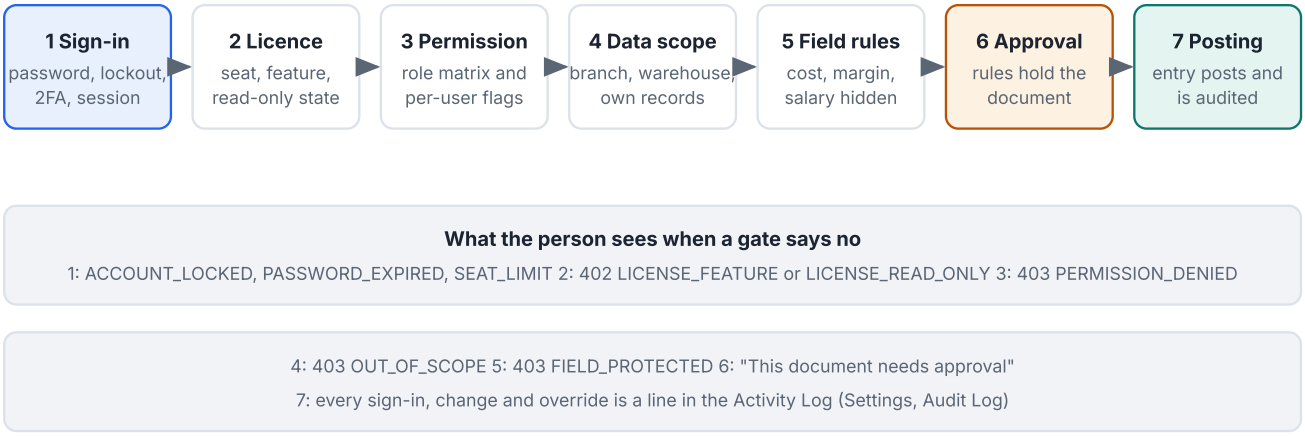
CONTROL AND OPERATIONS

Users, roles, approvals and settings

After this chapter you can decide who may do what in Zeyto, set up a safe cashier or accountant role, hold large discounts for approval, read the audit trail, find any setting on the Settings menu, and understand how the licence limits users and features.

1. The big picture: seven gates between a person and a posted entry

Zeyto does not rely on one lock. A request passes several gates in a fixed order. If any gate says no, the request stops and the person sees a message that names the reason. Each gate is covered by a section of this chapter.



The seven gates. The gates run left to right. A licence failure answers with HTTP 402. A permission failure answers with 403 and names the permission key that is missing.

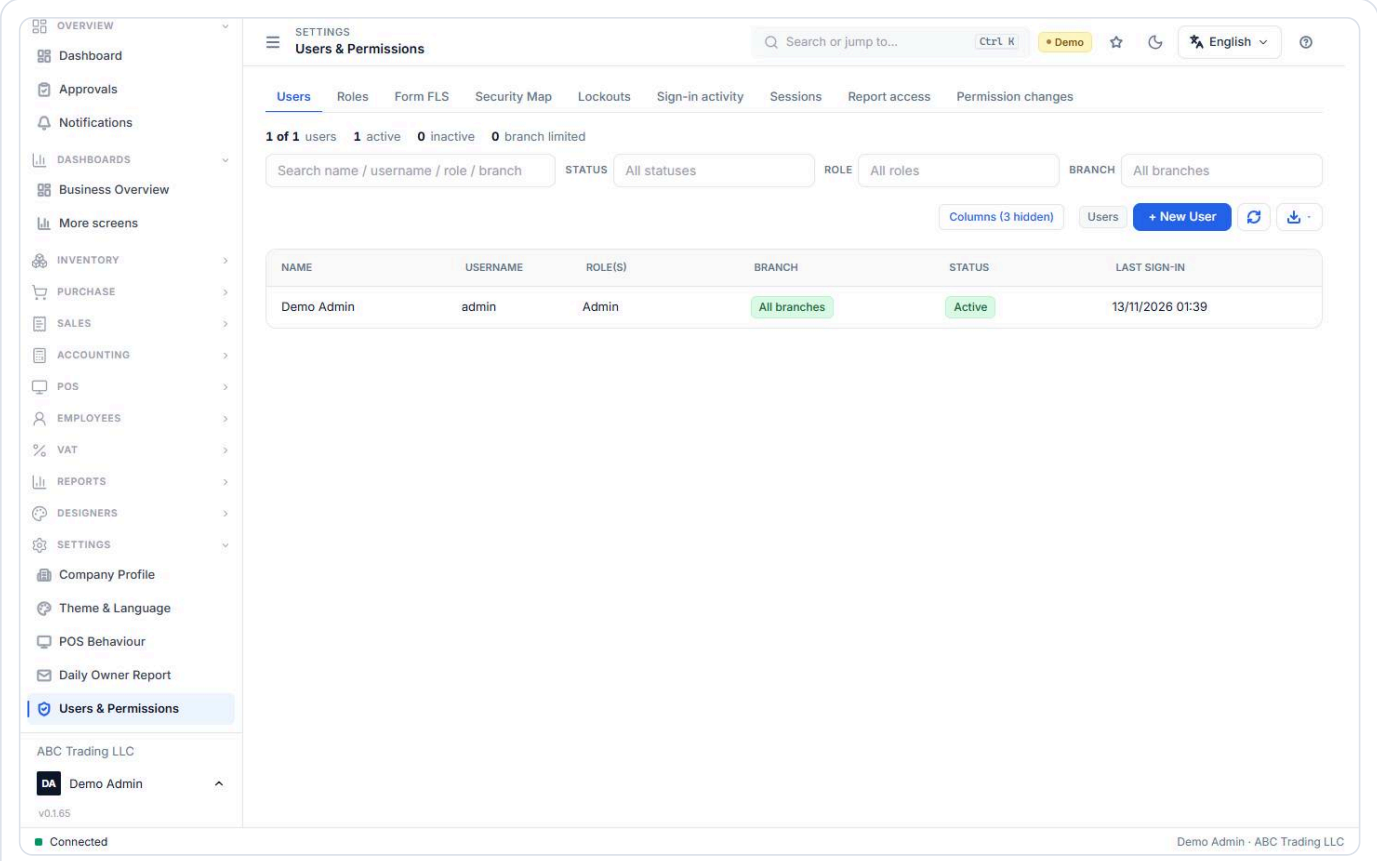
Two things stay true across all the gates. First, the built-in **Admin** role skips the permission, scope and field gates. Second, the system never removes the last Admin: it refuses with `LAST_ADMIN`.

> **RULE**
> The permission gate is checked on the server, not only on the screen. Hiding a button is a courtesy. The server refuses the call even if someone reaches the address by hand.

> Source: `src/Zeyto.Edge/Security/AuthorizationFilter.cs`, `src/Zeyto.Edge/Security/Objects/ObjectAccess.cs`, `docs/operations/w32-granular-permissions-2026-11-07.md`

2. Users and roles

Open `Settings ▸ Users & Permissions`. The screen has these tabs: **Users**, **Roles**, **Form FLS**, **Security Map**, **Lockouts**, **Sign-in activity**, **Sessions**, **Report access** and **Permission changes**. A further tab called Pilot Slice appears only when internal tools are switched on.



Users tab. The tab row runs Users, Roles, Form FLS, Security Map, Lockouts, Sign-in activity, Sessions, Report access and Permission changes. The list columns are Name, Username, Role(s), Branch, Status and Last sign-in. The filters are Status, Role and Branch, and the blue button is **+ New User**. The demo company has one user, Demo Admin, with the Admin role and All branches.

The four built-in roles

A new company starts with four roles. All four are marked as system roles. You cannot rename them or delete them, and "Admin" is a reserved name. You can edit what Sales, Cashier and Accountant are allowed to do.

AREA (PERMISSION MODULE)	ADMIN	ACCOUNTANT	SALES	CASHIER
Sales documents (`sales.*`)	All	View only	View, Create, Submit, Print	View only
Purchase documents (`purchase.*`)	All	All seven actions	None	None
Inventory (`inventory.*`)	All	None	View	View
Accounting (`accounting.*`)	All	All seven actions	None	None
POS (`pos.*`)	All	None	None	View, Create, Submit, Print
VAT (`vat.*`)	All	View, Export	None	None
Reports (`reports.*`)	All	View, Export	View	None

AREA (PERMISSION MODULE)	ADMIN	ACCOUNTANT	SALES	CASHIER
Employees, Settings, Security, Designers	All	None	None	None

The seven actions for sales, purchase, inventory and accounting are View, Create, Submit, Amend, Cancel, Print and Export. POS has View, Create, Submit and Print as base actions. The Accountant role starts with 19 keys, and Sales and Cashier start with 6 keys each. Later releases add keys on top (see below). In the demo company the role editor shows 25 of 129 permissions switched on for Accountant.

Later releases added more keys. Three rules cover them:

- Every role receives `approval.view`, `workflow.view` and `notification.view`, so anyone can see their own inbox.
- Any role that already holds `settings.amend` also receives `approval.act`, `approval.matrix.manage`, `workflow.act` and `workflow.manage`.
- Admin receives every other new key. Examples are `pos.refund`, `pos.cancel`, `pos.discount`, `pos.override`, `pos.cash.approve`, `accounting.year-end`, `accounting.backdate`, `dayend.close` and `dayend.reopen`.

Per-user flags

Some powers belong to a person, not a role. They are switches on the user page. All of them start off.

LABEL ON THE USER PAGE	STORED AS	DEFAULT	WHAT IT CONTROLS
Can see cost fields	`can_see_cost`	Off	Whether item cost, margin and profit values show to this person.
Can edit rate / price	`can_edit_price`	Off	Whether the person may change a line rate away from the price list.
Can override credit limits	`credit_override`	Off	Lets the person post past a customer credit limit when Credit Control is set to Block.
Max discount %	`max_discount_pct`	Empty (no cap)	The largest discount percentage this person may give on a line or on a whole document.

Create a user: tutorial

1. **Open the screen.** Go to `Settings ▸ Users & Permissions` and stay on the **Users** tab.
2. **Start a new user.** Press `+ New User`. The page opens with the sections Profile, Role & access, Security, Effective permissions and Activity.
3. **Fill in Profile.** Enter the name and the sign-in name, then set a password in **New password**. The password must meet the Security Policy (see section 4).
4. **Choose roles.** Under **Roles** tick one or more roles. A new user comes with Sales ticked. Untick it if the person should not sell.
5. **Limit branches.** Under **Branch limits** keep **All branches** ticked, or untick it and pick the branches this person may work in.
6. **Set the flags.** Switch on **Can see cost fields**, **Can edit rate / price** or **Can override credit limits** only where the job needs it. Type a number in **Max discount %** to cap discounts.

7 **Optional POS PIN.** A till user can have a **POS PIN**. Use **Reset POS PIN** to change it and **Remove the POS PIN** to switch it off.

8 **Check the result.** Open **Effective permissions**. The heading "What this person can do" lists what the person ends up with after all roles and flags are combined. Save.

> **TIP**
> Read "What this person can do" before you hand over the password. It is the quickest way to see a mistake, such as a till user who can also open Accounting.

The role editor

Open the **Roles** tab and a role. The editor has four tabs. Each one answers a different question.

Permissions

The module matrix. One row per module such as Sales or Purchase and one column per action. Use it for broad grants.

Forms and reports

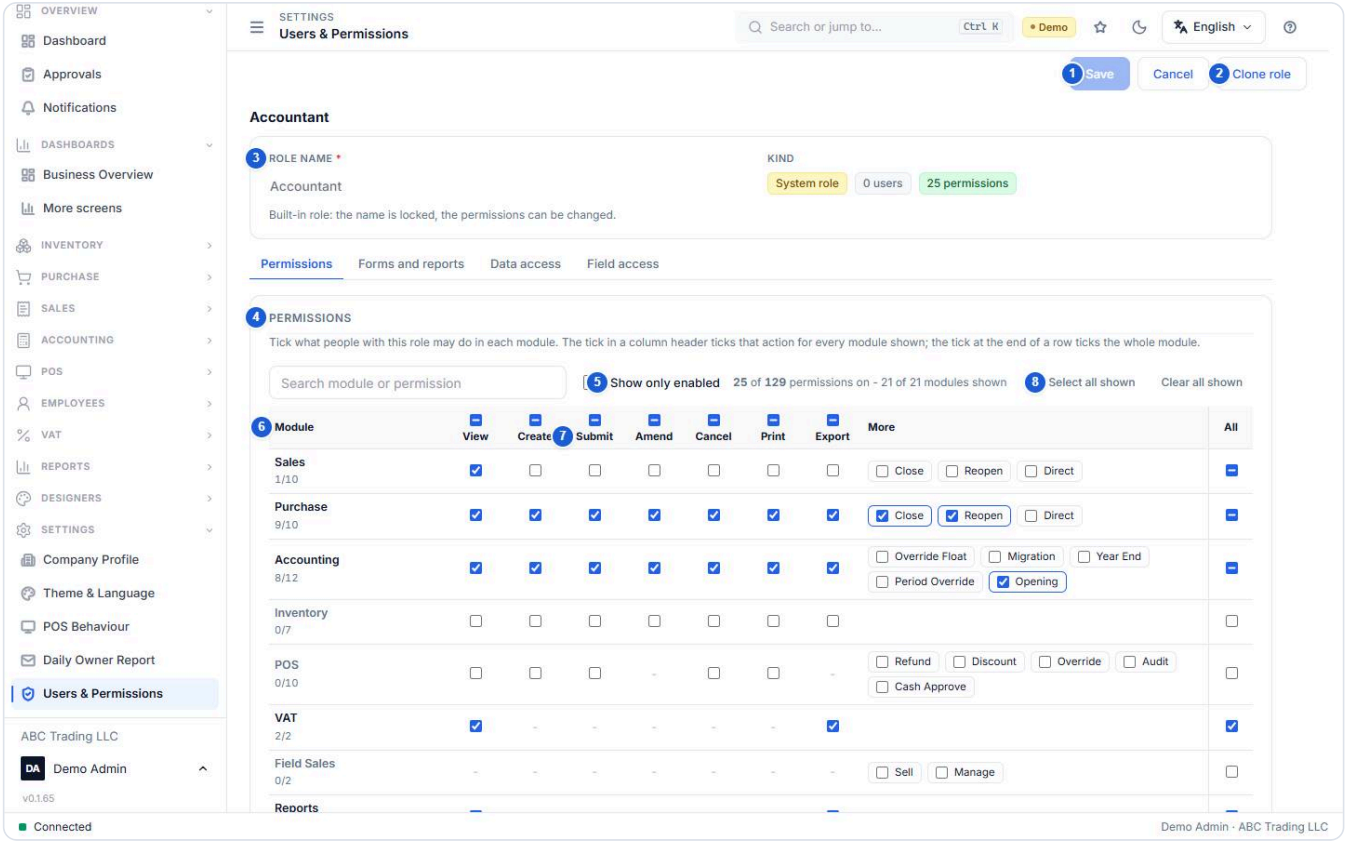
The object matrix. One row per form, report or setting, under the header "Form, report or setting". Use it for exceptions, such as a role that may view the sales invoice but not cancel it.

Data access

Row rules stored in `data_scope_rule`: limit a role to chosen branches, warehouses, cost centres, own records and similar.

Field access

Field rules stored in `field_access_rule`: show a field in full, read-only, masked or hidden.



The Accountant role in the role editor. The role is marked "System role" and the note says the name is locked and the permissions can be changed. The Permissions tab has one row per module. Each row shows how many of its permissions are on, for example Purchase 9/10. The More column holds extra actions such as Close and Reopen for Purchase, Opening for Accounting, and Refund, Discount and Override for POS.

1. Save: stores your changes to the role. Cancel beside it drops them.
2. Clone role: starts a new role from a copy of this one.
3. ROLE NAME: the name of the role. It is locked on a built-in role.
4. The four tabs: Permissions, Forms and reports, Data access and Field access.
5. Show only enabled: hides the modules in which nothing is ticked.
6. MODULE column: one row for each area of the product, with a count such as 8/12.
7. Action columns: View, Create, Submit, Amend, Cancel, Print and Export. A tick in a column header ticks that action for every module shown.
8. Select all shown: ticks every box that is on screen. The box at the end of a row ticks the whole module.

Granular permissions: the object matrix

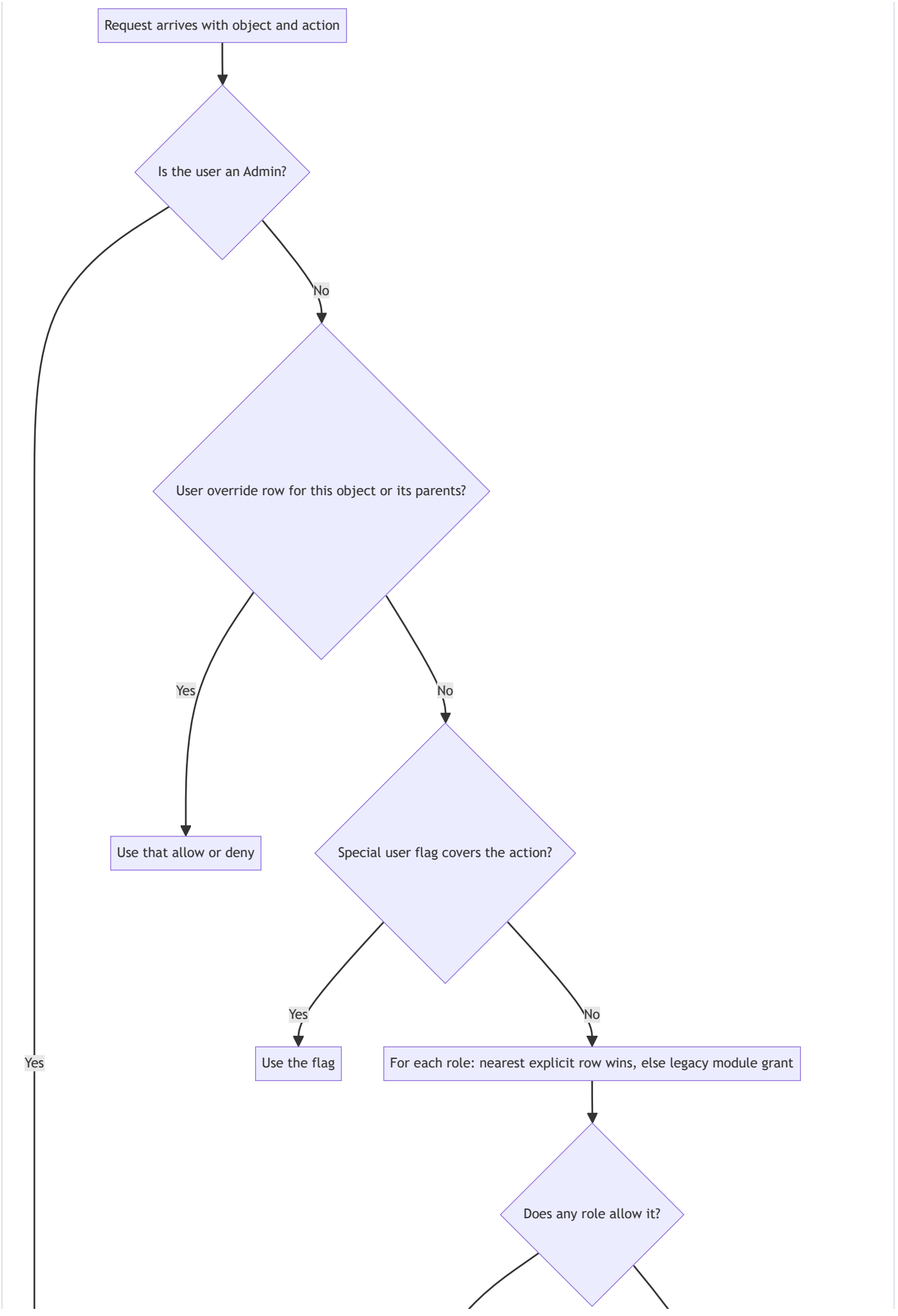
The matrix columns are **View**, **Create**, **Edit**, **Delete**, **Submit**, **Amend**, **Cancel**, **Print** and **Export**, plus a **More** column for form-specific actions. The legend reads "Click a cell to cycle: inherit, allow, deny." Each cell therefore has three states.

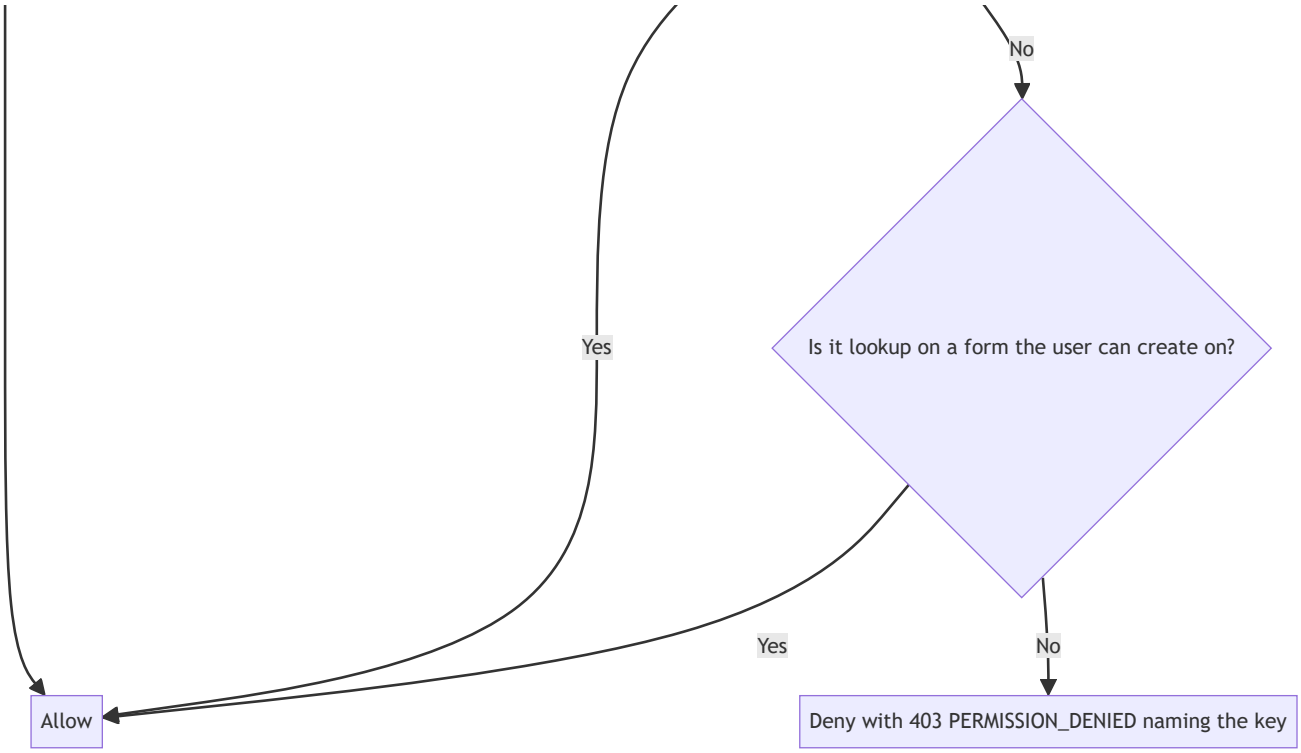
CELL STATE	MEANING
Inherit	No row is stored. The legacy module grant from the Permissions tab decides.
Allow	An explicit allow row for this object and action.
Deny	An explicit deny row. It overrides the module grant for this role.

The row menu offers **Allow all in this row**, **Deny all in this row** and **Inherit all in this row**. Under the grid, the section **Special actions** lists powers that are not plain screen actions. The catalogue includes `discount-over-limit`, `price-override`, `credit-limit-override`, `backdate`, `period-override`, `change-tax-code`, `view-cost`, `view-margin`, `view-net-profit`, `void-sale`, `refund`, `exchange`, `open-drawer`, `override-float`, `approve-discount`, `approve-override`, `view-audit`, `year-end` and `migration`. Use **Copy permissions from a role** to start a new role from an existing one. Finish with `Save permissions`, or press `Discard` to drop your edits.

Not verified in code: two special actions, `negative-stock-override` and `edit-after-print`, are listed in the catalogue but the design notes say the server does not enforce them yet. Do not rely on them to stop anyone.

How a permission check is decided


Request arrives with object and action
Is the user an Admin?
Yes
No
User override row for this object or its parents?
Yes
No
Use that allow or deny
Special user flag covers the action?
Yes
No
Use the flag
For each role: nearest explicit row wins, else legacy module grant
Does any role allow it?



Permission check. Roles are combined by union: one role that allows the action is enough, even if another role denies it. A user override row is the only thing that beats the roles. The flags in the "Use the flag" step are can_see_cost, can_edit_price, credit_override and max_discount_pct. Reports and dashboards add a view gate: if View is denied, Export, Print and the rest are denied as well.

ILLUSTRATIVE FIGURES

Two roles, one person: why a deny does not always win

Asha holds two roles. **Sales** has the legacy grant `sales.create`. A custom role called **Trainee** has an explicit Deny on the object `sales.invoice`, action Create.

STEP	WHAT THE RESOLVER FINDS	RESULT
1. Admin?	Asha is not an Admin.	Continue
2. User override	No rows for Asha.	Continue
3. User flags	No flag covers "create an invoice".	Continue
4. Role Sales	No object row, so the legacy grant `sales.create` applies.	Allow
4. Role Trainee	Explicit row: Deny.	Deny
5. Union	At least one role allows.	Allowed

To really stop Asha, remove the Sales role from her or add a user override row that denies the action. A deny on one role only removes the power for people who have no other role that grants it.

Worked example: a cashier who can sell but cannot see cost

ILLUSTRATIVE FIGURES

Set up a till user for a mobile shop

The built-in Cashier role holds `pos.view`, `pos.create`, `pos.submit`, `pos.print`, `sales.view` and `inventory.view`. That is already enough to ring up a sale. Cost protection comes from two layers.

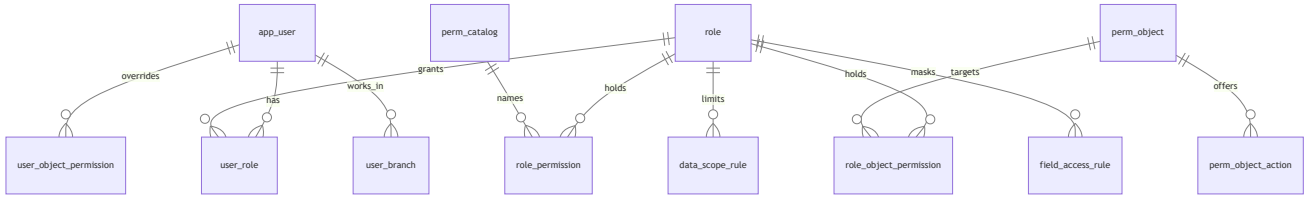
1. **Create the user.** In `Settings ▸ Users & Permissions ▸ Users` press `+ New User`, tick only the **Cashier** role and untick Sales.
2. **Leave the cost flag off. Can see cost fields** stays off. It starts off for every new user.
3. **Leave price editing off. Can edit rate / price** stays off, so the price-list price cannot be changed on the line.
4. **Cap discounts.** Type `5` in **Max discount %**. A document with a larger discount is refused with "the total discount X% exceeds this user's maximum discount 5%". A line check reads "lines[N].discPct X exceeds this user's maximum discount 5". POS applies the same cap.
5. **Hide the field.** Open the Cashier role, go to the **Field access** tab and set the field `item.cost` to **Hidden**. The flag decides what the screens show. The field rule is enforced by the server filter, which answers 403 FIELD_PROTECTED. Using both is the safe setup.
6. **Verify.** Open **Effective permissions** for the new user. Then sign in as that user and open an item: no cost column should show.

Result: the cashier sells, prints receipts and sees stock levels. The cashier cannot see what an item cost, cannot change a price and cannot give more than 5 percent off.

FIELD CATALOGUE

These field keys can carry a rule: `item.cost`, `report.margin`, `report.net_profit`, `party.credit_limit`, `party.bank_account`, `party.contact`, `employee.salary` and `employee.bank_account`. Each rule is one of FULL, READONLY, MASKED or HIDDEN. Other fields cannot be protected this way.

Data model behind users and roles



Security tables. `role_permission` holds the module grants from the Permissions tab. `role_object_permission` and `user_object_permission` hold the Forms and reports cells and the per-user overrides. If `user_branch` has no rows for a user, that user may work in every branch.

> Source: `src/Zeyto.Edge/Data/migrations/0009-seed-core.sql`, `src/Zeyto.Edge/Data/migrations/0018-security-audit.sql`, `src/Zeyto.Edge/Data/migrations/0150-granular-permissions.sql`, `src/Zeyto.Edge/Data/migrations/0065-`

`grant-approval-workflow-perms.sql` , `src/Zeyto.Web/src/screens/settings/UsersRoles.tsx` , `src/Zeyto.Web/src/security/ObjectPermissionMatrix.tsx` , `src/Zeyto.Edge/Security/PermissionCatalog.cs`

3. Branch, warehouse and field limits, and backdating

Roles say what a person may do. Data scope says which records the person may do it on. Zeyto keeps three separate tools for this and you can use any mix of them.

Branch limits on the user

The simple switch. On the user page, **Branch limits** either shows **All branches** ticked or a list of ticked branches. It is stored in `user_branch` . A user with no rows there works in every branch.

Data access rules on the role

The advanced tool. A rule in `data_scope_rule` picks a dimension and a direction: READ, WRITE or BOTH. The dimensions are BRANCH, WAREHOUSE, COST_CENTER, JOB_CENTER, PROJECT_CENTER, PARTY_GROUP, OWN_RECORDS, DOC_STATUS and MAX_AMOUNT.

Field access rules on the role

Rules in `field_access_rule` turn one field into FULL, READONLY, MASKED or HIDDEN. They protect the fields listed in section 2.

How the server enforces them

FILTER	WHAT IT STOPS	ERROR THE PERSON SEES
ScopeGuardFilter	Opening or listing a record outside the person's data access rules.	403 `OUT_OF_SCOPE`
ScopeGuardFilter	A screen that cannot apply the person's advanced rules.	403 `SCOPE_UNSUPPORTED`
FieldSecurityFilter	Reading or writing a protected field.	403 `FIELD_PROTECTED`
PrivilegeGuardFilter	A person granting rights they do not hold themselves.	403 `PRIVILEGE_ESCALATION`
SodFilter	Approving your own document, or approving above your limit.	`SOD_SELF_APPROVAL` , `SOD_APPROVAL_LIMIT`
PermissionChangeAuditFilter	Nothing is refused. It writes every permission change to `permission_change_log` , shown on the **Permission changes** tab.	None

Warehouses

The WAREHOUSE dimension exists. It is applied by the voucher list and when a voucher is opened directly. A person limited to one warehouse sees only that warehouse's vouchers.

> **RULE**
> Customers and suppliers stay visible company-wide. The owner decided that party exposure is not split by branch. An opt-in setting, `security.strictCompanyWide` , exists and is off.

WARNING

There is no native PostgreSQL row-level security underneath. The limits are enforced by the Zeyto server. A person with the database password could read everything, which is why the database password is private to each install and not shared with staff.

Not verified in code: the exact on-screen labels of the individual dimensions on the Data access tab. This chapter uses the dimension names stored in `data_scope_rule`.

Backdating control

Open `Settings ▸ Security Policy` and scroll to the backdating card. It stores `security.backdating` with three values: enabled, `maxDaysBack` and `maxDaysAhead`. When it is on, a document dated outside the window is refused with `BACKDATING_NOT_ALLOWED`. Admin and anyone who holds `accounting.backdate` are exempt.

Two other date controls sit on the Posting Controls screen, `Settings ▸ Posting Controls`: **Future-dated documents** (Allow or Block) and **Books locked up to (inclusive)**. Backdating limits who may use old dates. The books lock stops everyone, because nothing posts on or before the locked date.

ILLUSTRATIVE FIGURES

A branch cashier who may only see their own branch

1. **Open the user.** Go to `Settings ▸ Users & Permissions ▸ Users` and click the cashier.
2. **Limit the branch.** Under **Branch limits** untick **All branches** and tick one branch.
3. **Save.** Press `Save`.
4. **Check.** Sign in as that user. Voucher lists show only that branch. Opening a voucher of another branch by its address returns 403 `OUT_OF_SCOPE`.
5. **Look at the trail.** Open `Settings ▸ Users & Permissions ▸ Permission changes`. The change is listed there with who made it.

Source: `src/Zeyto.Edge/Data/migrations/0125-security-model.sql`, `src/Zeyto.Edge/Data/migrations/0140-account-security.sql`, `docs/operations/w27-security-model-2026-11-06.md`, `docs/operations/w28-security-followup-2026-11-06.md`, `src/Zeyto.Web/src/security/AccountSecurityPanel.tsx`, `src/Zeyto.Web/src/help/content/settings-company.ts`

4. Sign-in, lockouts and the Security Policy

Open `Settings ▸ Security Policy`. The upper half holds the password and session rules. The lower half, labelled by the panel names **Sign-in rules**, **Two-factor sign-in** and the backdating card, holds account security.

The policy fields and their defaults

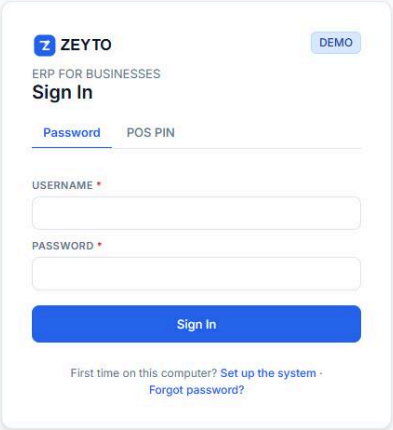
SECTION	FIELD LABEL	DEFAULT	ALLOWED RANGE
Password strength	Minimum length	8	6 to 64

SECTION	FIELD LABEL	DEFAULT	ALLOWED RANGE
Password strength	Digit required (`RequireDigit`)	On	On or off. The other character rules are off by default.
Brute-force lockout	Failures before lockout	5	3 to 50
Brute-force lockout	Counting window (minutes)	10	Whole minutes
Brute-force lockout	Lockout duration (minutes)	15	Whole minutes
Sessions & POS PIN	Session lifetime (hours)	12	1 to 168
Sessions & POS PIN	POS PIN length (digits)	4	4 to 8
Password reset by e-mail	Allow a reset code by e-mail	Off	On or off. When on, an 8-digit code is e-mailed through the mail server set in Settings, Sharing. It lasts 15 minutes and 5 wrong tries cancel it.
Password reuse and expiry	Remember the last passwords	0	0 to 12
Password reuse and expiry	Password lasts (days)	0 (never)	0, or 7 to 3650

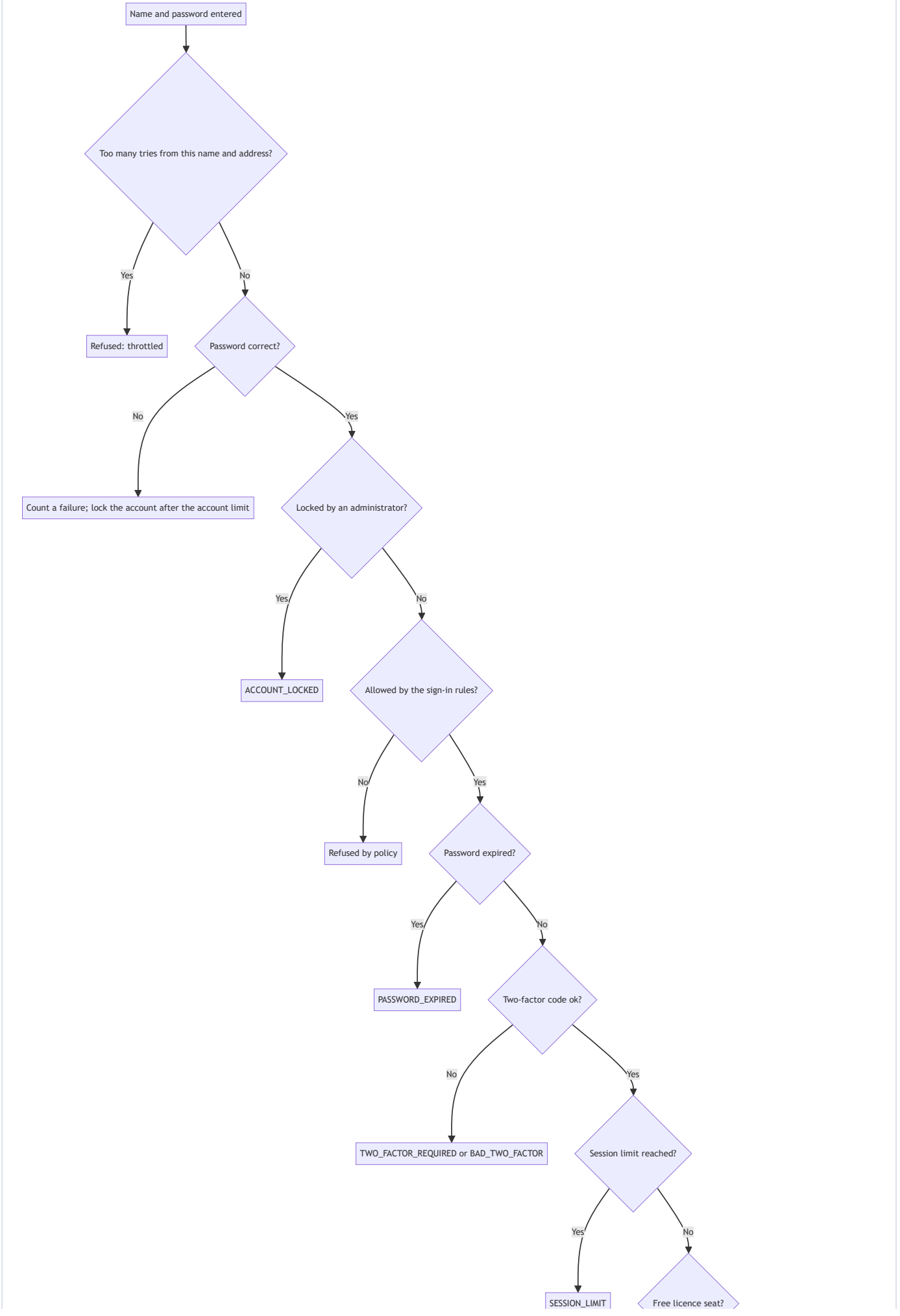
The account-security half adds three controls:

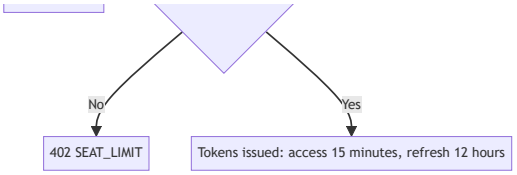
- **Sign-in rules.** An IP allow-list written as CIDR ranges, which apps may sign in (desktop, web, phone, POS till), the session length and a limit on concurrent sessions.
- **Two-factor sign-in.** Optional time-based one-time codes (TOTP). When a person turns it on, Zeyto gives 10 recovery codes. A used recovery code writes `auth.2fa.recovery-code-used` to the audit log.
- **Backdating.** Covered in section 3.

What happens when a person signs in



The sign-in screen. It has two tabs, Password and POS PIN, with the fields Username and Password and a Sign In button. Under the button are the links "Set up the system" for a first time on this computer, and "Forgot password?".


Name and password entered
Too many tries from this name and address?
Yes
No
Refused: throttled
Password correct?
No
Yes
Count a failure; lock the account after the account limit
Locked by an administrator?
Yes
No
ACCOUNT_LOCKED
Allowed by the sign-in rules?
No
Yes
Refused by policy
Password expired?
Yes
No
PASSWORD_EXPIRED
Two-factor code ok?
No
Yes
TWO_FACTOR_REQUIRED or BAD_TWO_FACTOR
Session limit reached?
Yes
No
SESSION_LIMIT
Free licence seat?



Sign-in decision order. A refusal is written to the audit log with its own event name: `auth.login.failed`, `auth.login.throttled`, `auth.login.locked`, `auth.login.refused-locked`, `auth.login.refused-policy`, `auth.login.refused-expired`, `auth.login.refused-session-limit` or `auth.login.seat-limit`. A good sign-in writes `auth.login.success`.

Not verified in code: the position of the administrator lock check relative to the sign-in rules check. The diagram shows it directly after the password, which matches the documented behaviour that a correct password is still refused with `ACCOUNT_LOCKED`.

Two kinds of lock

LOCK	WHO SETS IT	HOW IT ENDS	WHERE TO CLEAR IT
Throttle on a name and address	Zeyto, from repeated wrong passwords at one address. Held in memory.	By itself.	Nothing to clear. It is cleared when Zeyto Edge restarts, and by a successful server reset of that login.
Timed account lock	Zeyto, after the account limit of consecutive failures from any address. The limit is the larger of 10 and twice the "Failures before lockout" value.	When `locked_until` passes.	**Lockouts** tab, or **Unlock** on the user page.
Administrator hard lock	An Admin presses **Lock** on the user page.	Only when an Admin presses **Unlock**.	User page, "Sign-in status".

ILLUSTRATIVE FIGURES

A shopkeeper mistypes a password: a lockout timeline

Defaults are in force: 5 failures before lockout, a 10 minute counting window, a 15 minute lockout. The account limit is the larger of 10 and 2 × 5 = 10, so it is 10.

TIME	EVENT	FAILURES COUNTED	RESULT
09:00	Wrong password, shop PC	1	Refused, `auth.login.failed`
09:01 to 09:04	Four more wrong passwords	5	Refused. The fifth reaches the failure limit inside the 10 minute window, so the throttle starts.
09:05	The correct password from the same PC	5	Refused as throttled while the lockout runs, `auth.login.throttled`
09:06 to 09:20	The owner tries from a phone and fails five more times	10	The account limit of 10 consecutive failures is reached. A timed account lock is set, `auth.login.locked`.
09:30	An Admin opens **Lockouts** and presses **Unlock**	0	The account is free. A correct password now signs in.

Check the arithmetic: 5 failures at one address start the throttle, and 10 consecutive failures in total across addresses set the account lock.

Not verified in code: whether the 15 minute "Lockout duration" applies to the throttle, to the timed account lock or to both, and whether a correct password is refused while the throttle runs. The timeline follows the documented limits only. The policy screen offers one lockout field for the brute-force protection.

Unlock a user: tutorial

1. **Find the person.** Go to `Settings ▸ Users & Permissions ▸ Lockouts`. A locked user is listed there.
2. **Read the reason.** Open the **Sign-in activity** tab to see the failed lines for that person and their addresses. If the addresses are not the person's own, treat it as an attack and change the password.
3. **Unlock.** On the user page find "Sign-in status" and press `Unlock`.
4. **Set a new password if needed.** Type it in **New password** and save.
5. **Check seats.** If the person still cannot sign in and sees SEAT_LIMIT, open the **Sessions** tab and end an old session. A session with no heartbeat for 10 minutes shows as "Not responding".

> **TIP**
>
> If the only Admin forgets the password, no one can unlock anyone. On the server computer use `Start Menu ▸ Zeyto ▸ Reset Zeyto login`. It uses the recovery key file kept on that computer and rotates the key after use. Chapter 13 covers recovery in full.

Source: `src/Zeyto.Edge/Auth/AuthApi.cs`, `src/Zeyto.Edge/Auth/LoginThrottle.cs`, `src/Zeyto.Edge/Auth/AccountSecurity.cs`, `src/Zeyto.Contracts/SettingsDtos.cs`, `src/Zeyto.Web/src/screens/settings/AuthPolicySettings.tsx`, `src/Zeyto.Web/src/screens/settings/UsersRoles.tsx`, `docs/customer-locked-out-guide.md`, `docs/operations/installer-and-recovery.md`

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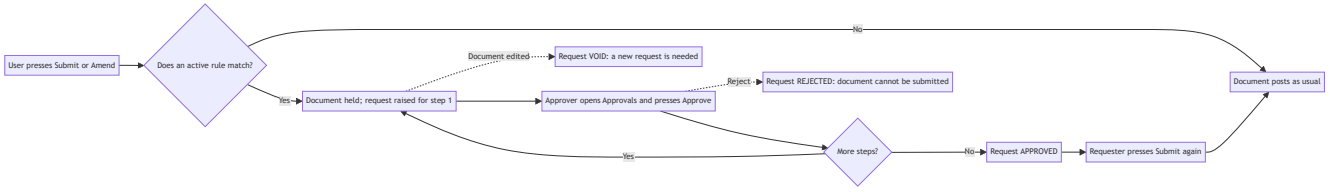
5. Approvals and the document workflow

Zeyto has three separate tools that sound alike. Know which one you want.

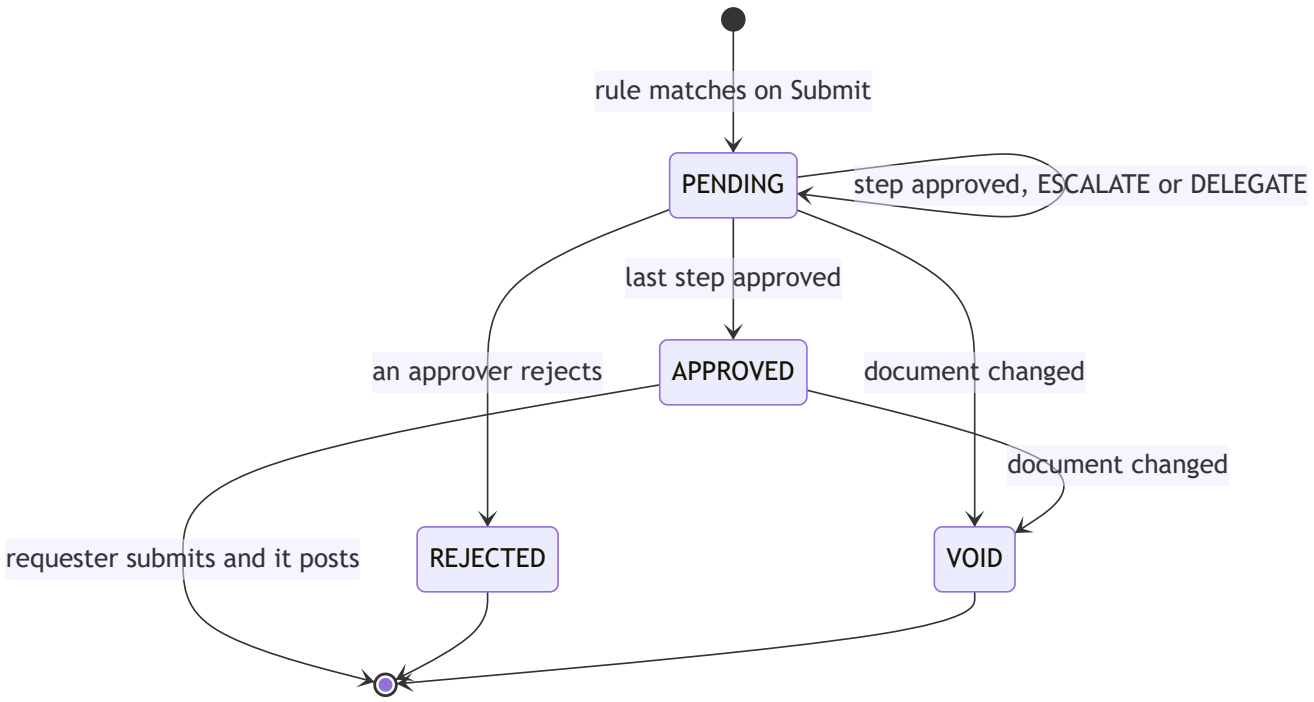
TOOL	WHERE	WHAT IT DOES
Approval Rules	`Settings ▸ Approval Rules`	Holds a document that meets conditions (for example a large discount) until named people approve it.
Document Workflow	`Settings ▸ Document Workflow`	Decides which steps of the document chain are Required, Optional or Off (for example whether a delivery note must come before an invoice). It does not ask a person to approve.
Workflow Designer	`Settings ▸ Workflow Designer`	Defines the steps a sales or purchase document passes through, such as Picked, Packed and Shipped, so each document shows where it has got to. It never posts anything and it is not an approval.
Workflow Approvals	`Workflow ▸ Workflow Dashboard` or `Workflow Inbox`	The screen has the buttons Dashboard, Inbox and Definitions. It keeps a list of five ready-made approval definitions and three inbox views. You can switch a definition on or off, but nothing else in Zeyto reads the list today. Use Approval Rules to hold documents.

Approval Rules and the Approvals inbox are available only when your licence includes the **MultiUser** feature. Without it the screens show a lock.

The lifecycle of an approval



Approval workflow. Approval does not post the document. After the last approval the person who raised it presses Submit again. POS sales are never held, and neither are documents made by the system.



Approval request states. The request has four states: PENDING, APPROVED, REJECTED and VOID. Each action is logged as APPROVE, REJECT, DELEGATE, COMMENT, ESCALATE or VOID. The document itself carries a matching mark in `approval_state`: NONE, PENDING, APPROVED or REJECTED.

Set up a rule for large discounts: tutorial

The Zeyto discount rule has two layers you can combine. The first is the per-user cap, **Max discount %** (section 2). It refuses a discount over the cap. The second is an approval rule. It does not refuse the discount: it holds the document until a manager approves. Use the cap for people who should never exceed a limit and the rule for people who may, with permission.

1. **Open the screen.** Go to `Settings ▸ Approval Rules` and press `+ New Rule`.
2. **Name it.** Type a **Code** such as `DISC-SI` and a **Rule name** the approver will understand, for example "Invoice discount above 10 percent". A Code can be used once, even after the rule is removed.
3. **Choose the document.** In **Applies to** choose `SI`, the code of a sales invoice. Settings ▸ Document Types lists every code.
4. **Add the condition.** Press `+ Add condition`. Set **Field** to "Largest line discount %", **Test** to "is more than" and **Value** to `10`.
5. **Choose who approves.** Under "Who approves, in order" set **Approver** to "Anyone with a role" and pick the **Role**, for example Accountant. Leave **Approvals needed** at 1.
6. **Block self-approval.** Keep **Self-approval** on Blocked, which is the recommended value. Then the person who raised the invoice cannot approve it, not even an administrator.
7. **If nobody can approve.** Keep "Block the document".
8. **Save.** Press `Save rule`. It applies to documents submitted from now on.

> **WARNING**
> The "If nobody can approve" choice "Send it to the owner" does not send the request to an owner today. The request only waits with nobody named. Keep "Block the document". Also, nothing alerts the approvers when a request is raised, so tell them to open Approvals.

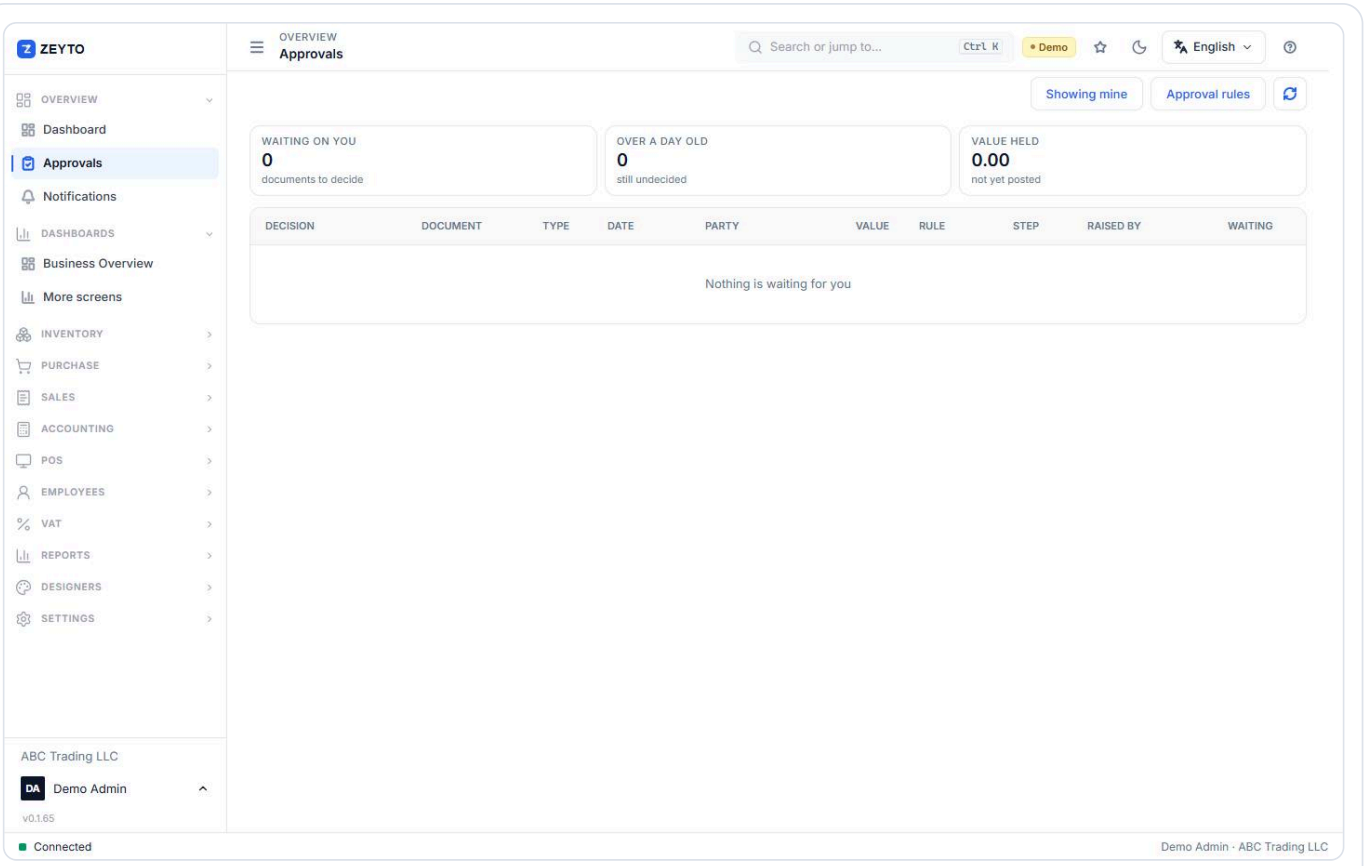
Rule fields in one table

FIELD	WHAT YOU CHOOSE
Order	Rules are checked from the lowest number up and the first active matching rule is used. It starts at 100.
Test	is more than, is at least, is less than, is at most, is, is not, is one of. Currency, Customer or supplier and Branch are text, so use only is, is not or is one of with them.
Value	A plain number (50000, not 50,000). Text in double quotes such as "USD". A list for is one of, such as ["AED","USD"].
Approver kinds	Anyone with a role, A named person, The requester's manager, The branch manager. The last two both mean users who hold the Admin role, because Zeyto has no manager link between people.
Approvals needed	How many different people must approve at the step.
Escalate after (hours), Escalate to step	If nobody acts in that time the request moves to the named step. It never approves by itself and does not run in Demo data mode.

What you can test: Document total (VAT included, own currency, never converted), Subtotal before tax, Payment terms (days), Number of lines, Document discount amount, Document discount %, Largest line discount %, Currency, Customer or supplier, Branch and Credit exposure % of limit. The credit exposure test is 0 for a customer without a limit, so it never applies to them.

What the approver sees

Approvers open `Overview ▸ Approvals`. Three tiles sit on top: **Waiting on you**, **Over a day old** and **Value held**. A toggle switches between "Showing mine" and "Showing everyone". The Decision column holds the Approve and Reject buttons. The Waiting column turns amber after 24 hours and red after 72 hours.



The Approvals inbox when it is empty. The columns are Decision, Document, Type, Date, Party, Value, Rule, Step, Raised by and Waiting. The buttons at the top are Showing mine, Approval rules and a refresh. The demo company has no approval rule, so the screen says "Nothing is waiting for you".

Approvals Showing mine Approval rules

DECISION	DOCUMENT	TYPE	DATE	PARTY	VALUE	RULE	STEP	RAISED BY	WAITING
Approve Reject	Draft invoice	SI	13/11/2026	Al Noor Trading	462.00	DISC-SI	1	Asha	3 hours

The mock above shows how a waiting request would look, with illustrative values. Absence is handled by delegation. Open `Settings ▸ Approval Delegations` and fill "Approvals belonging to", "Are approved by", From date and To date. Each delegation shows one of the states In effect, Scheduled, Expired or Off.

ILLUSTRATIVE FIGURES

A 12 percent discount on a sales invoice is held, approved and posted

Asha raises a sales invoice for 10 phone covers at AED 50.00 each. She gives a 12% line discount. Her own cap is empty, so the cap does not stop her. The rule DISC-SI from the tutorial is active.

LINE	AMOUNT (AED)
10 × 50.00 gross	500.00
Discount 12%	60.00
Net before VAT	440.00
VAT 5% on 440.00	22.00
Invoice total	462.00

1. **Submit.** Asha presses `Submit`. Largest line discount is 12, which is more than 10. The rule matches. The invoice stays a draft and Zeyto answers "This document needs approval".
2. **Approve.** A person with the Accountant role opens Approvals, sees the request and presses `Approve`. It is the only step, so the request becomes APPROVED.
3. **Post.** Asha presses `Submit` again and the invoice posts.

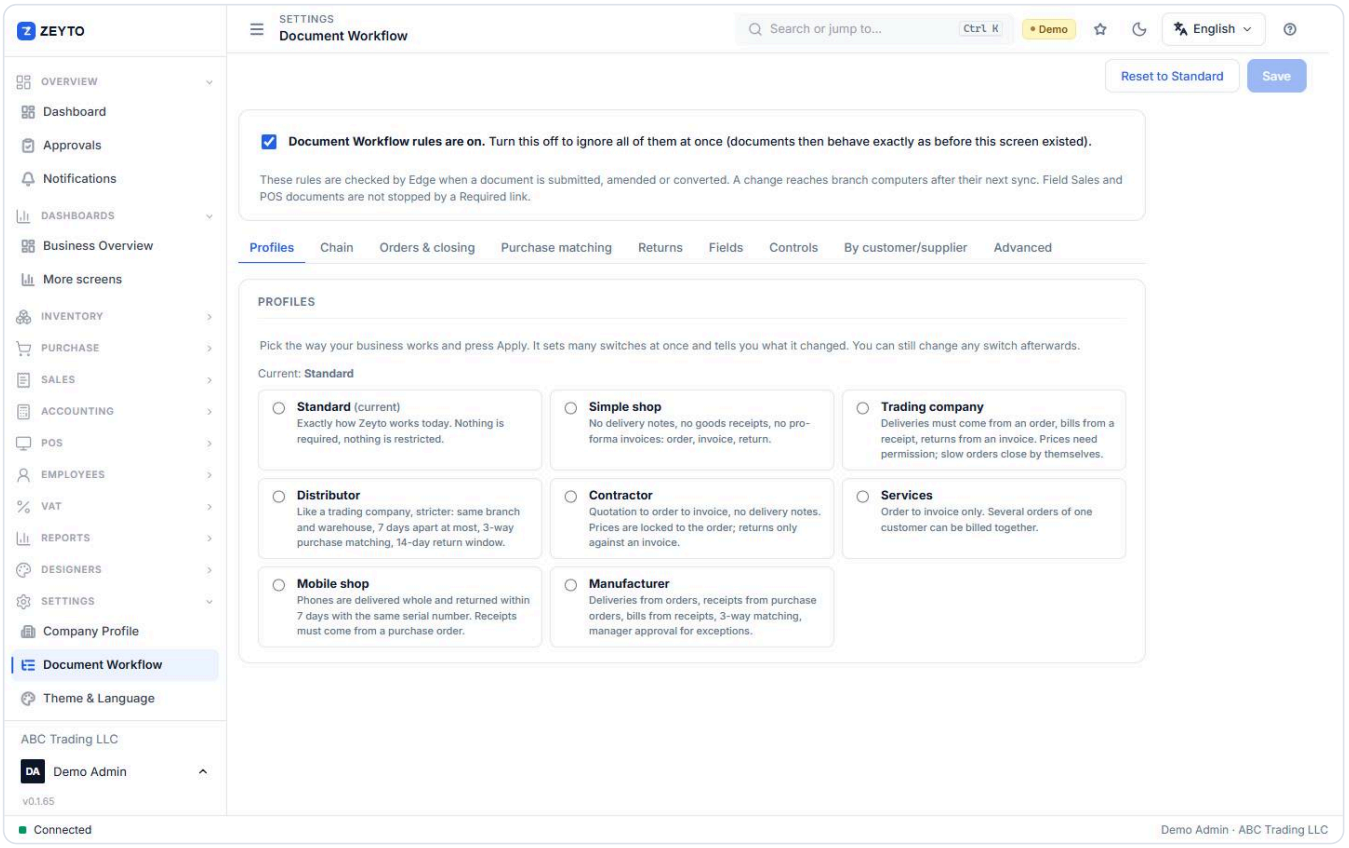
The posting after the second Submit:

ACCOUNT	DR	CR
1200 Trade Receivables	462.00	
4000 Sales		440.00
2200 VAT Output		22.00
Total	**462.00**	**462.00**

The three account names and numbers come from the seeded chart of accounts. The debit equals the credits, so the trial balance stays at zero.

Not verified in code: whether the posting map books Sales at the net figure of 440.00 as shown here, or at the gross figure of 500.00 with the 60.00 discount in a separate account. The total debit of 462.00 is the same either way.

Document Workflow



Document Workflow, Profiles tab. At the top a tick says "Document Workflow rules are on". Untick it to ignore all rules at once. Below, the Profiles tab offers Standard (the current one), Simple shop, Trading company, Distributor, Contractor, Services, Mobile shop and Manufacturer. A profile sets many switches at once, and you can still change each switch afterwards. The buttons are Reset to Standard and Save.

Open `Settings ▸ Document Workflow`. The tabs are **Profiles**, **Chain**, **Orders & closing**, **Purchase matching**, **Returns**, **Fields**, **Controls**, **By customer/supplier** and **Advanced**. On the Chain tab each step of the sales or purchase chain is set to Required, Optional or Off. A master tick turns all rules off at once. The "Ask a manager" action raises an approval through the criterion called Workflow exception, so it works together with an approval rule on the wf keys.

Posting Controls that guard the books

SETTING ON `SETTINGS ▸ POSTING CONTROLS`	CHOICES	EFFECT
Future-dated documents	Allow, Block	Blocks a document dated after today.
Books locked up to (inclusive)	A date	Nothing posts on or before that date.
Customer LPO required on a sales invoice	On or off	The invoice needs the customer's purchase order number.
Customer TRN required when VAT is charged	On or off	Refuses a VAT invoice to a customer with no TRN.
Same customer, LPO already used	Off, Warn, Block	Catches a reused purchase order number.

Not verified in code: the Posting Controls page also stores a bill-discount setting. The help text says it is saved but not read by the posting code, so it has no effect today.

> Source: `src/Zeyto.Web/src/help/content/settings-operations.ts`, `src/Zeyto.Web/src/help/content/settings-doc-workflow.ts`, `src/Zeyto.Web/src/help/content/overview-dashboards.ts`, `src/Zeyto.Edge/Domain/ApprovalCriteria.cs`, `src/Zeyto.Edge/Data/migrations/0062-approval-matrix.sql`, `src/Zeyto.Edge/Data/migrations/0009-seed-core.sql`

6. The audit trail: who did what, and when

Zeyto keeps several records of activity. They answer different questions, so know which one to open.

RECORD	WHERE	ANSWERS
Audit Log	`Settings ▸ Audit Log` (the screen heading says "Activity Log")	Who saved, changed, removed or submitted what, with old and new values. Refused requests are logged too.
Document Timeline	Open a saved document, `More` then `Timeline`	The whole story of one document: edits, submit and cancel, ledger and stock postings, receipts applied, approvals, sends, files.
Sign-in activity	`Users & Permissions ▸ Sign-in activity`	Who signed in, failed or was locked out, and from where.
Permission changes	`Users & Permissions ▸ Permission changes`	Every change to roles, grants and overrides, written by the permission change filter.
Error Log	`Settings ▸ Error Log`	Failures on this computer, each with a reference number to quote to support.

> **RULE**
> The Audit Log is read-only. Nothing on the screen can change or delete a line, and nobody else can either. Opening it needs the `security.view` permission. Anyone who may open a document may open its Timeline without that permission.

Find who changed something: tutorial

1. **Open the log.** Go to `Settings ▸ Audit Log`. The screen starts with the last 30 days.
2. **Set the dates.** Fill **From** and **To**. The whole of the To day is included.
3. **Narrow it.** Pick a **User** or an **Event**, or type the **Entity** (the kind of record, such as items or docs). Paste a **Transaction Id** to see everything that happened to one record.
4. **Apply.** Press `Apply`. Nothing is filtered until you press it. `Reset` returns to the last 30 days.
5. **Read the columns.** Look at Form, Action and Done By, then click a row.
6. **Open the detail.** A panel opens under the list. Fields marked with a dot are the ones that changed. A dash under Old Value means no earlier value was recorded, as for a new

record. `Raw JSON` shows the full recorded payload when support asks.

7. **Save it.** The Export menu holds Export CSV, Export XLSX and Export PDF. The file holds the lines on screen, up to 500.

Event names read api, then the request type, then the screen. `api.post.items` is a new item saved, `api.put.items` is a changed item and `api.denied.get.reports` is a refused request. Sign-in events have their own names such as `auth.login.failed`, `auth.login.locked` and `auth.login.seat-limit`. When a support person looks at your system through the support window, the audit log records them as `zeyto-support`.

ILLUSTRATIVE FIGURES

Who cancelled the invoice this morning?

The owner finds that a sales invoice has the status Cancelled and wants to know who did it. The invoice is in the list but nobody remembers.

1. **Start from the document.** Open the invoice, press `More` and `Timeline`. Use the filter **All**. Find the cancel line. It shows the person and the time.
2. **Prove it in the log.** Copy the document's long code. In `Settings ▸ Audit Log` paste it into **Transaction Id** and press `Apply`.
3. **Compare.** The Done By column must show the same person as the Timeline. Open the row to see old and new values.
4. **Ask the next question.** Was that person allowed? Open `Users & Permissions`, the user page, and read "What this person can do". If Cancel on sales is there, the system worked as set. If an approval was needed, the Timeline also shows the approval.

WARNING

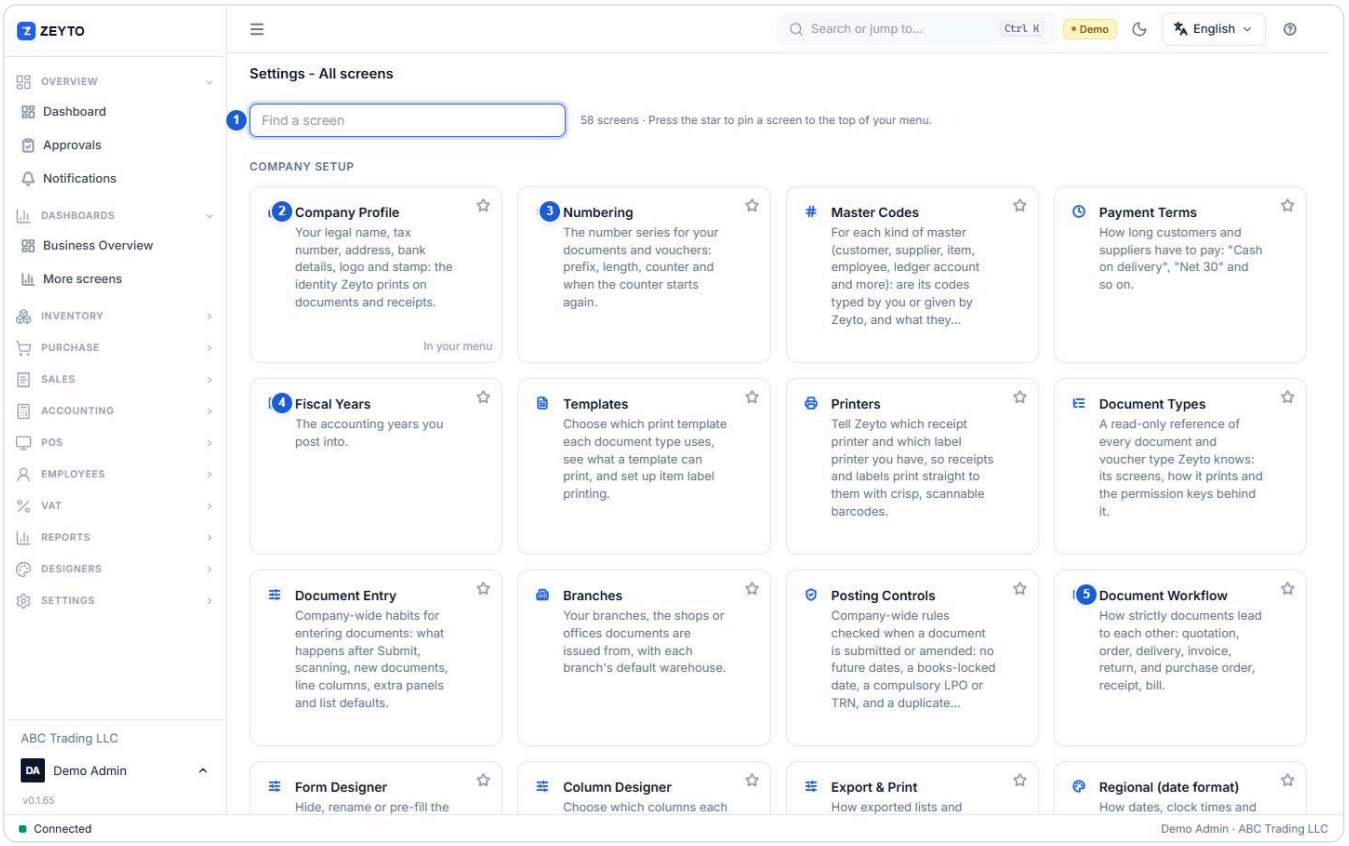
The log shows what the system recorded. It does not show an edit made straight in the database by someone with the database password. Keep that password private to the server. Chapter 13 explains how support reaches the database in read-only form.

Source: `src/Zeyto.Web/src/help/content/settings-system.ts`, `src/Zeyto.Edge/Data/migrations/0018-security-audit.sql`, `src/Zeyto.Edge/Auth/AuthApi.cs`, `docs/operations/support-levels.md`

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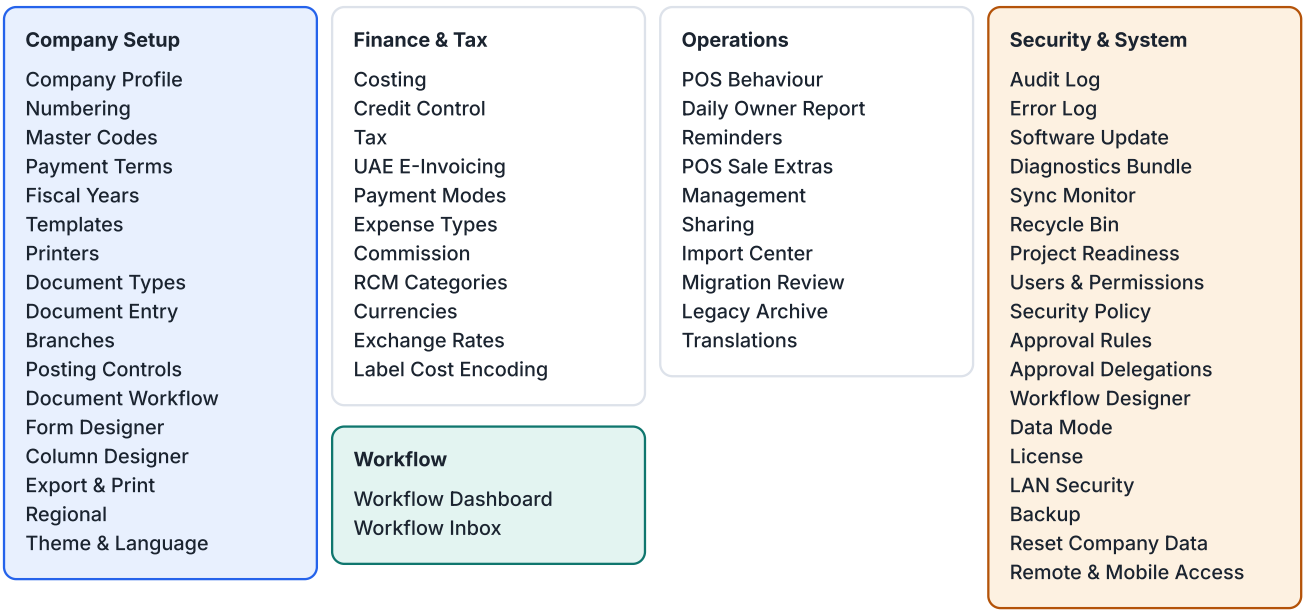
7. The Settings map

Every setting in Zeyto is on the Settings menu in the sidebar. The menu has five groups. Company Setup holds the facts about your business. Finance & Tax holds the accounting rules. Operations holds the habits of the shop and the till. Workflow is a small group. Security & System holds users, licence, backup and the tools for the computer itself.



Settings home. The heading reads "Settings - All screens" and the page says how many screens it lists (58 in the demo company). The cards are grouped under COMPANY SETUP and the groups below it. The star on a card pins the screen to the top of your menu.

1. Find a screen: the search box. Type part of a name or of its description.
2. Company Profile: legal name, tax number, address and logo.
3. Numbering: the number series of documents and vouchers.
4. Fiscal Years: the accounting years you post into.
5. Document Workflow: how strictly documents lead to each other.



Settings menu by group. Merchant Fees exists but is hidden from the sidebar. Project Readiness is an internal checklist of the Zeyto team. The default permission for the Security & System screens is `security.view`, so a role without it does not see them.

What each page does

MENU GROUP	SETTINGS PAGE	WHAT IT DOES
Company Setup	Company Profile	Legal name, tax number, address, bank details, logo and stamp printed on documents.
Company Setup	Numbering	Number series: prefix, length, counter and when the counter restarts. A number is given at Submit.
Company Setup	Master Codes	For each master (customer, supplier, item, employee, ledger account): typed by you or given by Zeyto, and the code shape.
Company Setup	Payment Terms	How long customers and suppliers have to pay, such as Cash on delivery or Net 30.
Company Setup	Fiscal Years	The accounting years you post into. A document dated outside an open year is refused. Closing a year stops posting in it.
Company Setup	Templates	Which print template each document type uses, and item label printing.
Company Setup	Printers	The receipt printer and the label printer, so receipts and labels print straight to them.
Company Setup	Document Types	Read-only reference of every document type with its screens, print and permission keys.
Company Setup	Document Entry	Company-wide entry habits: what happens after Submit, scanning, line columns, list defaults, a warning when a sale is below cost.

MENU GROUP	SETTINGS PAGE	WHAT IT DOES
Company Setup	Branches	Branches with a default warehouse each. The screen also lists warehouses and racks.
Company Setup	Posting Controls	Checks at Submit and Amend: no future dates, a books-locked date, compulsory LPO or TRN, duplicate LPO check.
Company Setup	Document Workflow	How strictly documents lead to each other, from quotation to invoice and from purchase order to bill.
Company Setup	Form Designer	Hide, rename or pre-fill header fields of sales and purchase forms, and add your own fields.
Company Setup	Column Designer	Which columns each list and report shows. Kept on this computer only.
Company Setup	Export & Print	How exported lists look: header and footer lines, PDF page, Excel options, CSV format.
Company Setup	Regional	How dates, times and large numbers are written. Stored dates never change.
Company Setup	Theme & Language	Colours, row height, corner style, language and sidebar. Two choices stay on the computer you use.
Finance & Tax	Costing	The cost method new items start on, whether stock may go below zero, and each item's cost method and standard cost.
Finance & Tax	Credit Control	What happens when a customer would pass a credit limit or has overdue invoices: Block, Warn or Ignore.
Finance & Tax	Tax	VAT codes with rate and the VAT201 boxes they report in.
Finance & Tax	UAE E-Invoicing	Builds and keeps an e-invoice file for each submitted sales invoice and return. Zeyto does not send the files to the tax authority.
Finance & Tax	Payment Modes	The ways a customer can pay and the ledger account each one posts to.
Finance & Tax	Expense Types, Commission	On the menu. Their help pages were not read for this chapter.
Finance & Tax	RCM Categories	Goods where the buyer accounts for the VAT (reverse charge), with tax code and start date.
Finance & Tax	Currencies, Exchange Rates	Usable currencies with symbol and decimals, and the daily rate against the base currency.
Finance & Tax	Label Cost Encoding	Prints an item's cost on a label as a private code made from a 10-letter key word.
Operations	POS Behaviour	Receipt printing and copies, cash drawer, quick-cash buttons, cash rounding, asking for a customer.
Operations	POS Sale Extras	Salesman with commission, tips, serial or IMEI numbers, weighing-scale label layout.

MENU GROUP	SETTINGS PAGE	WHAT IT DOES
Operations	Daily Owner Report	One short evening report to the owners by e-mail, ready to open in WhatsApp.
Operations	Reminders	Which reminders go out each day, how often, and to whom.
Operations	Management	Monthly sales targets per salesman and who owns each kind of exception.
Operations	Sharing	Who gets the Daily Business Summary, the mail server (SMTP), and the Share Queue.
Operations	Import Center	Load or bulk-update masters and opening balances from CSV, Excel, Vyapar or Tally XML, with a preview and roll back.
Operations	Migration Review, Legacy Archive	Documents from an old system that need a correction, and a read-only archive of old rows.
Operations	Translations	Arabic, Urdu, Hindi or Malayalam wording of menus, buttons and messages.
Workflow	Workflow Dashboard, Workflow Inbox	One screen with Dashboard, Inbox and Definitions buttons. Nothing else in Zeyto reads its definitions today.
Security & System	Audit Log	Read-only record of who changed what and when.
Security & System	Error Log	Failures recorded on this computer, each with a reference number to quote to support.
Security & System	Software Update	Check, download and verify a newer version and see the update safety net.
Security & System	Diagnostics Bundle	One file for a support ticket, error-reporting switches and the time-limited support window.
Security & System	Sync Monitor	Sales stored by tills during an outage and sent later: waiting, accepted or refused, plus clashes.
Security & System	Recycle Bin	Deleted master records that can come back or be removed for good. Documents are never here.
Security & System	Project Readiness	Internal checklist of the Zeyto team. Not needed to run a business.
Security & System	Users & Permissions	Users, roles, permission list, branch limits, field locks.
Security & System	Security Policy	Password strength, lockout, session length, POS PIN length, account security.
Security & System	Approval Rules, Approval Delegations	Hold documents for approval, and let someone approve in place of another.
Security & System	Workflow Designer	Document status steps such as Picked, Packed, Shipped. Never posts.

MENU GROUP	SETTINGS PAGE	WHAT IT DOES
Security & System	Data Mode (Live/Demo)	Switch between the real database and a separate training database. Needs a restart.
Security & System	License	State, end date, seats and modules, and where to activate a key.
Security & System	LAN Security	The address other devices use inside the shop and whether the shop traffic is encrypted.
Security & System	Backup	Back up, check, restore, schedule and keep a copy elsewhere. See chapter 13.
Security & System	Reset Company Data	Empty the live company of transactions after testing. A verified backup is taken first.
Security & System	Remote & Mobile Access	Let phones, browsers and Zeyto Client PCs reach the shop from outside. See chapter 13.

Not verified in code: the help pages for Expense Types, Commission and Merchant Fees were not read for this chapter, so their descriptions are left out on purpose.

Settings that affect security and control, in one view

YOU WANT TO	GO TO	SETTING
Stop sales when stock would go below zero	`Settings ▸ Costing`	Negative stock: Block, Warn or Ignore. A new install starts on Warn. Each warehouse also has an Allow Negative tick.
Stop customers going over a limit	`Settings ▸ Credit Control`	BLOCK, WARN or IGNORE. A user with the "Can override credit limits" flag may pass a block.
Lock a closed month	`Settings ▸ Posting Controls`	Books locked up to (inclusive).
Hold large discounts	`Settings ▸ Approval Rules`	A rule on SI with "Largest line discount %".
Cap one person's discount	`Users & Permissions ▸ user page`	Max discount %.
Control till actions	`Settings ▸ POS Behaviour`	Price changes, removed lines, discounts and reprints. The permission keys `pos.refund`, `pos.cancel`, `pos.discount` and `pos.override` sit behind them.
Practise without touching real books	`Settings ▸ Data Mode (Live/Demo)`	Switch to Demo, then restart Zeyto Edge. A banner shows on every screen while Demo is on. It needs `security.amend`.
Start clean after testing	`Settings ▸ Reset Company Data`	Two choices: Transactions only, or Transactions plus items, parties and price lists. A verified backup is taken first. Users, roles, settings and the licence are never touched.

> **WARNING**
>
> Reset Company Data cannot run in Demo mode, while a restore is running, while phones or branches (sync devices) are registered, while a POS shift is open, or while e-invoices wait to be sent. Filed VAT returns are removed too, and the screen makes you tick a separate confirmation. Keep your copies from the tax authority portal.

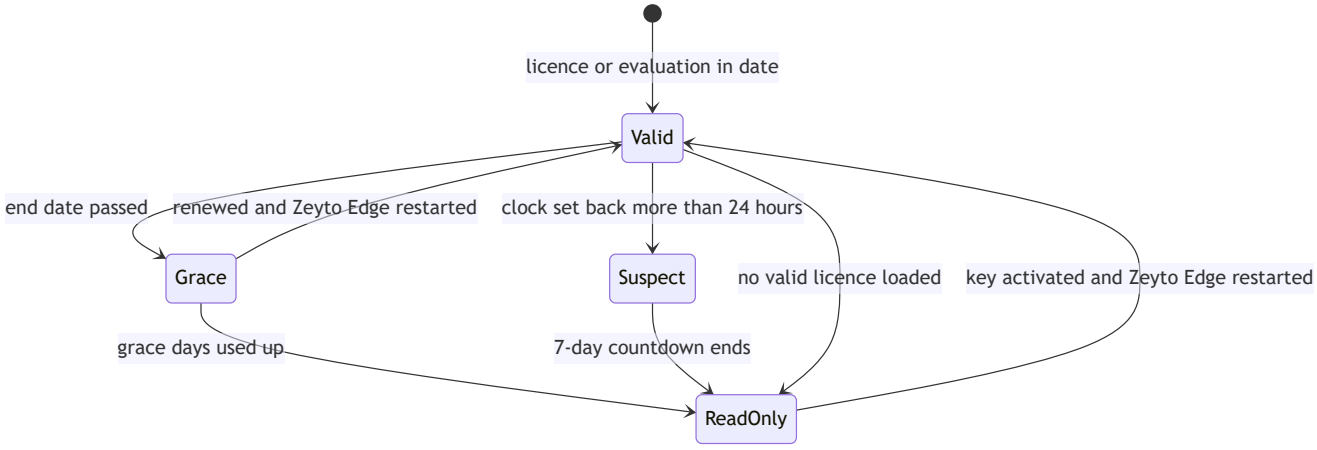
Source: `src/Zeyto.Web/src/screens/nav.ts`, `src/Zeyto.Web/src/help/content/settings-company.ts`, `src/Zeyto.Web/src/help/content/settings-finance.ts`, `src/Zeyto.Web/src/help/content/settings-operations.ts`, `src/Zeyto.Web/src/help/content/settings-system.ts`, `src/Zeyto.Web/src/help/content/settings-printers.ts`

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8. Licence, editions, seats and feature gating

The licence decides two things: which modules you may use (features) and how many of each thing may run at once (limits). Open `Settings ▸ License`. The heading reads "License & Activation" and the tabs are **Licence status** and **Activate / renew**.

The licence states

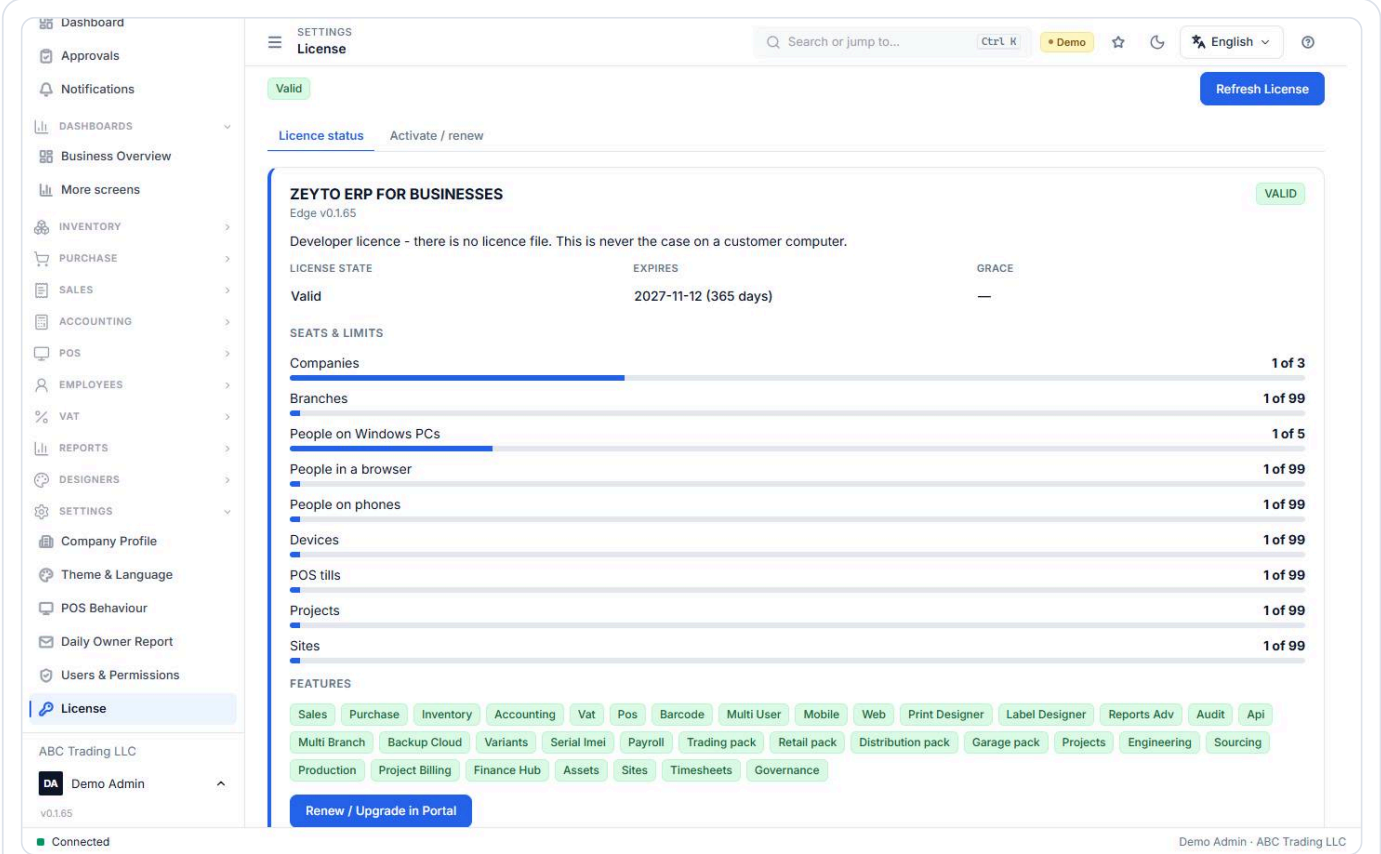


License State. Valid works fully. Grace still works fully for the grace days written in the licence file (a paid licence normally has 7 days, a trial has none). Suspect means the computer clock looks set back and Zeyto is cautious. ReadOnly refuses changes with 402 `LICENSE_READ_ONLY`, while export, print, backup and restore still work.

Not verified in code: every arrow in this diagram. The states and their meanings come from the License help page and the licence code summary. The exact paths between states, for example whether Suspect can return to Valid when the clock is corrected, were not traced.

Features and limits

A feature is a module switch such as Sales, Purchase, Inventory, Accounting, Vat, Pos, Barcode, MultiUser, Mobile, Web, PrintDesigner, LabelDesigner, ReportsAdv, Audit, Api, MultiBranch, BackupCloud, Variants, SerialImei or Payroll. A limit is a count. The licence can limit Companies, Branches, desktop users, web users, mobile users, Devices and POS terminals. The Seats & Limits card shows each as "in use of allowed", for example 3 of 5, with a bar. The lines are labelled **Companies**, **Branches**, **People on Windows PCs**, **People in a browser**, **People on phones**, **POS tills**, **Devices**, **Projects** and **Sites**.



The License screen. The Licence status tab shows License State, Expires and Grace, then the Seats & Limits bars (for example 1 of 5 for People on Windows PCs), then the Features as green chips. The buttons are Refresh License and Renew / Upgrade in Portal. This screenshot was taken on a development installation, so its licence details are not an example of a customer licence.

- A seat is taken while someone is signed in. It is freed when they sign out, or about ten minutes after their screen stops responding.
- When every seat of one kind is in use, the card says **Full** and the next person is refused with 402 `SEAT_LIMIT`.
- A second cashier on the same till does not take another seat.
- One desktop seat is always kept for the admin.

ILLUSTRATIVE FIGURES

Three desktop seats on a busy morning

A shop has a licence with 3 "People on Windows PCs". The Seats & Limits card shows 0 of 3.

TIME	EVENT	SEATS IN USE	RESULT
08:30	Cashier A signs in on desktop	1 of 3	Allowed
08:35	Storekeeper B signs in on desktop	2 of 3	Allowed
08:40	Accountant C tries to sign in on desktop	2 of 3	Refused with `SEAT_LIMIT`, because the last seat is kept for the admin
08:45	Owner, an Admin, signs in on desktop	3 of 3	Allowed. The card shows Full
09:05	Cashier A closes the laptop without signing out. No heartbeat for 10 minutes	2 of 3	The session shows "Not responding" on the Sessions tab and its seat is freed
09:06	Accountant C tries again	3 of 3	Allowed

The shop can fix the shortage by signing C in as "People in a browser" if the licence has seats of that kind, or by renewing with more desktop seats.

Not verified in code: the exact reservation rule. The licence documentation states that one desktop seat is always kept for the admin. How the count treats a second staff sign-in while the Admin is signed out was not traced, so the row at 08:40 follows the documented rule only.

Activate a licence: tutorial

1. **Find the key.** The purchase email from Zeyto holds the licence key. The key looks like `ZYT-AE-XXXXX-XXXXX-XXXXX`. It is also listed in the customer portal at zeyto.app/my under Licences.
2. **Go online.** Activation is the one step that needs the internet. Everyday work does not.
3. **Open the screen.** Go to `Settings ▸ License` and the **Activate / renew** tab.
4. **Paste and activate.** Paste the key into **Licence key** and press `Activate`.
5. **Read the message.** If the key is wrong or Zeyto cannot be reached it says so and nothing changes.
6. **Restart.** On the server computer open `Start Menu ▸ Zeyto ▸ Restart Zeyto Edge`. The new licence only starts after the restart.
7. **Check.** On the **Licence status** tab read **License State** and **Expires**. Valid and a new end date mean it worked.

`Refresh License` re-reads what this computer already knows. It does not contact Zeyto. `Renew / Upgrade in Portal` opens the customer website in a new tab. The button `Register at zeyto.app` is for a customer who has no key yet.

> **RULE**
>
> Moving to a new computer? Restore your backup first, then activate. Activating first wastes a seat, because the identity tied to the licence is stored in the data. Release the old device at zeyto.app/my first, even if the old computer is dead.

The 14-day evaluation

A copy with no licence starts a 14 day evaluation. It works fully offline. The start date is stored in up to three places and the earliest one wins, so deleting one copy does not restart the trial. After 14 days the install turns read-only. If the clock is set back by more than 24 hours, Zeyto starts a 7 day Suspect countdown.

Offline activation and the licence server

A computer that cannot reach the internet can still activate. Zeyto writes a request file with the extension `.zrq` that is valid for 30 days. You take it to a computer that is online, the portal returns a `.zlic` file, and you import that file on the Zeyto computer. The online route uses the licence server endpoints `/v1/licence/activate`, `/current`, `/heartbeat` and `/release`. The server binds the licence to a machine fingerprint. A refusal comes back as one of KEY_NOT_FOUND, DEVICE_LIMIT, LICENCE_EXPIRED, LICENCE_REVOKED or PRODUCT_MISMATCH.

How features gate the menu

The sidebar knows which menu groups and screens need which feature. A screen whose feature is missing shows a lock chip and an upgrade link instead of opening. On the server, the same check answers 402 `LICENSE_FEATURE`. Approval Rules, Approval Delegations and the Approvals inbox are examples: they need **MultiUser**.

> **TIP**
>
> The marketing editions (Solo, Business, Pro) are not read by the code. The code only branches on features and limits. If a customer says "I bought Business but cannot see Payroll", look at the Features list on the licence card, not at the edition name.

> Source: `src/Zeyto.Web/src/screens/License.tsx`, `src/Zeyto.Web/src/screens/health.ts`, `src/Zeyto.Web/src/screens/nav.ts`, `src/Zeyto.Web/src/help/content/settings-system.ts`, `src/Zeyto.Contracts/Entitlements.cs`, `src/Zeyto.Edge/Licensing/EvaluationTrial.cs`, `src/Zeyto.Edge/Licensing/SeatCounter.cs`, `docs/operations/licence-server.md`, `docs/blueprint.md`

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9. Check yourself and common mistakes

Check yourself

Do these in order on a test company, or in Data Mode set to Demo. Each one tells you the control works.

1. Open `Settings ▸ Users & Permissions ▸ Users`, then a cashier. In **Effective permissions** confirm that Accounting, Purchase and Settings do not appear.
2. Sign in as that cashier and open an item. No cost column should be visible. If it is, check the user flag **Can see cost fields** and the **Field access** rule for `item.cost`.
3. Set **Max discount %** to 5 for that cashier. Give a 6 percent discount at the till. It must be refused with the maximum discount message.
4. Add the approval rule DISC-SI from section 5. Raise an invoice with a 12 percent line discount. It must stay a draft with "This document needs approval". The request must appear in Approvals.
5. Approve it as a different user, then Submit again as the requester. Open the **Trial Balance** and confirm that total debit equals total credit.

6. Type a wrong password five times for a test user. Open **Sign-in activity** and **Audit Log** with Event `auth.login.failed`. You should see five lines.
7. Open `Settings ▸ License`. Confirm **License State** is Valid, read **Expires**, and compare the lines of **Seats & Limits** with the people you expect.
8. Edit a role, then open **Permission changes**. The edit must be listed with your name.

Common mistakes

SYMPTOM	CAUSE	FIX
A person sees 403 `PERMISSION_DENIED` naming a key such as `sales.create`.	None of their roles grants the key and no override allows it.	Add the key in the role editor, or set the cell to Allow on the Forms and reports tab. Then check "What this person can do".
You denied an action on one role and the person can still do it.	Roles are combined by union. Another role of the same person allows it.	Remove the other role from the person, or add a user override row that denies it.
A cashier still sees item cost.	The flag **Can see cost fields** was ticked, or no Field access rule hides `item.cost`.	Untick the flag and set the field to Hidden on the role.
"This document needs approval" appears and no one reacts.	Nothing alerts approvers when a request is raised.	Tell the approver to open Approvals. Agree who checks it each day.
The request is approved but the invoice is still a draft.	Approval does not post. The requester must press Submit again.	Press Submit again as the person who raised it.
The document stops with an error that names the rule.	The rule cannot be tested. Common causes are a number written as 50,000 or a numeric test used on a text field such as Currency.	Fix the Value (50000 without a comma). For Currency, Customer or supplier and Branch use only is, is not or is one of.
Request waits with nobody named.	The rule says "Send it to the owner" and no person holds the step.	Use "Block the document" and make sure the role has at least one active holder.
The Approval Rules or Approvals screens show a lock.	The licence lacks the MultiUser feature.	Check Features on the licence card. Renew or upgrade in the portal.
The correct password is refused with `ACCOUNT_LOCKED`.	An administrator pressed Lock on the user.	An Admin presses **Unlock** under "Sign-in status".
Sign-in answers 402 `SEAT_LIMIT`.	Every seat of that kind is in use, possibly by sessions that were never signed out.	Open the **Sessions** tab and end old sessions. A session with no heartbeat for 10 minutes is "Not responding".
Everything refuses changes with 402 `LICENSE_READ_ONLY`.	The licence ended and the grace days are used up, or none is loaded.	Press Refresh License, then Activate with the key, then restart Zeyto Edge. Export, print and backup still work meanwhile.

SYMPTOM	CAUSE	FIX
A new licence key was accepted but the state did not change.	Zeyto Edge has not been restarted.	Start Menu, Zeyto, Restart Zeyto Edge.
A document is refused with `BACKDATING_NOT_ALLOWED`.	The date is outside the allowed window of the backdating card.	Use a date inside the window, or let a user with `accounting.backdate` post it.
A user gets 403 `SCOPE_UNSUPPORTED`.	The person has advanced data access rules and the screen cannot apply them.	Use the simple Branch limits on the user page, or remove the advanced rule.
The last Admin cannot be removed.	The system guards against having no Admin (`LAST_ADMIN`).	Create or promote another Admin first.

> Source: `src/Zeyto.Edge/Auth/AuthApi.cs`, `src/Zeyto.Edge/Security/AuthorizationFilter.cs`, `src/Zeyto.Web/src/help/content/settings-operations.ts`, `src/Zeyto.Web/src/help/content/settings-system.ts`, `docs/operations/support-playbook.md`

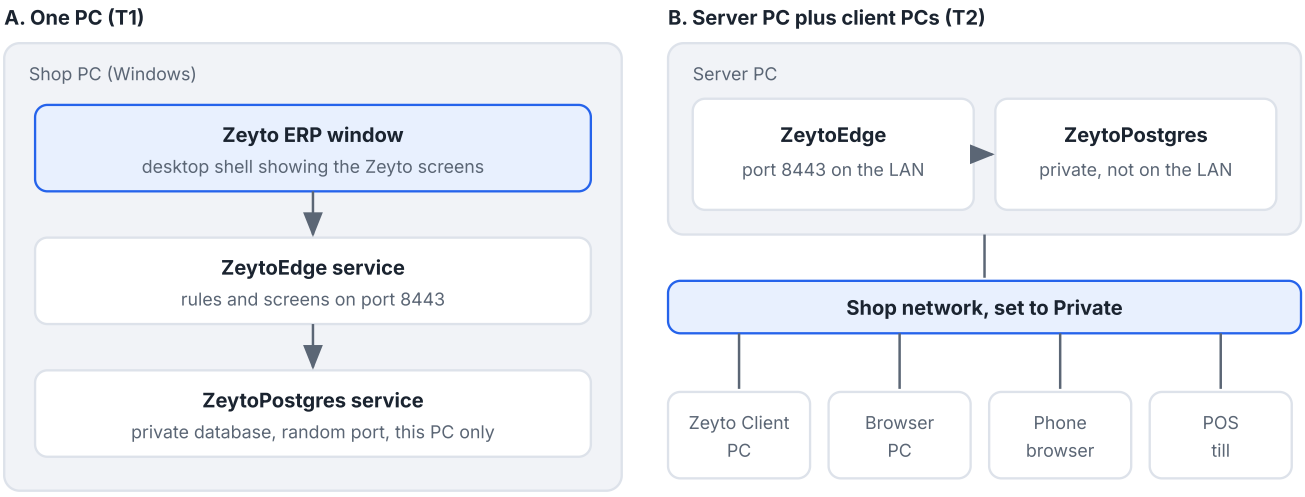
CONTROL AND OPERATIONS

Running Zeyto: backup, updates and support

After this chapter you can install Zeyto, keep a backup you have proved you can restore, take an update safely, move to a new computer, bring data in from Emeron, Tally or Excel, open Zeyto from outside the shop, and work out why a customer cannot open it.

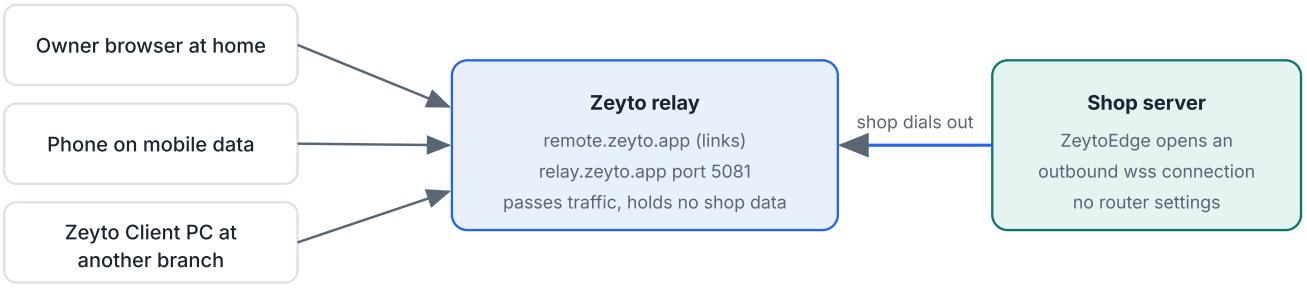
1. The big picture: where Zeyto runs

Zeyto is one program with one database. A small service called **Zeyto Edge** holds the business rules and serves the screens. A private PostgreSQL database called **ZeytoPostgres** holds the data. Everything you see, on a desktop window, in a browser or on a phone, is a screen talking to Zeyto Edge. There are three ways to arrange it.



Topologies A and B. In both, the database is private to the server PC. Client PCs, browsers and phones never open the database. They open Zeyto Edge, which checks the licence seat and the user permissions first. The window name on the single PC is **Zeyto ERP** and the till is **Zeyto POS**.

C. Away from the shop, through the relay



D. Hosted by Zeyto

demo.zeyto.app (port 8444) and the country demos on ports 8451 to 8456

Zeyto Edge and database on Zeyto's own server, for the sales demo and the internal team.

The design document says hosted databases are not for customer deployments.

Topologies C and D. In C the shop always dials out, so you need no fixed address and no router changes. The shop PC must be on and online for remote access to work. D is shown so you know what the demo addresses are. A real customer runs A, B or C.

TOPOLOGY	WHO IT FITS	WHAT YOU NEED
T1: single PC	One counter, one owner.	One Windows PC with the server installer. The licence counts one desktop seat.
T2: server plus clients	Several staff in one shop.	One server PC that stays on, a shop network set to Private, and the address of the server. Others install Zeyto Client or open a browser.
T3: several branches	Owner with more than one shop.	The relay: branch PCs and phones reach the head office server from outside the shop.
Hosted demo	Showing Zeyto to a prospect.	Nothing. Zeyto runs it. Do not enter real customer data there.

RULE

Zeyto works offline. Only activating a licence, downloading an update and remote access need the internet. A shop with a broken internet line still sells.

> Source: `docs/blueprint.md`, `docs/operations/system-map.md`, `docs/cloud-relay-design.md`, `docs/operations/installer-and-recovery.md`, `src/Zeyto.Web/src/help/content/settings-system.ts`

2. The installer and what it lays down

Zeyto ships two installers. The server installer is built from `Zeyto.iss`. The workstation installer is built from `Zeyto-Client.iss`. On the download host they are named `zeyto-setup-latest.exe` and `zeyto-client-setup-latest.exe`.

Program Files, Zeyto
The program. Replaced when you update.

- edge\ Zeyto Edge program and the screens
- shell\ the desktop window and the till window
- pgsql\ bundled PostgreSQL 17.2
- installer\scripts\ backup, restore, reset tools

ProgramData, Zeyto
Your data and identity. Kept when you update.

- Postgres\data\ the database files
- pg.secret database password, never share
- install.json facts about this install
- server-recovery.key used by Reset Zeyto login
- license.zlic the signed licence file
- layout.json update layout, inplace-v1
- lan-url.txt the address for other PCs

Where things live. The program folder can be replaced without touching your data. The data folder is what a backup protects. Never copy `pg.secret` or `server-recovery.key` into an email or a chat.

Services, port and firewall

ITEM	WHAT IT IS	DETAIL
ZeytoPostgres	Windows service for the database	Private. Random port. Not opened in the firewall.
ZeytoEdge	Windows service for Zeyto Edge	Depends on ZeytoPostgres, starts with a delay after boot. If it crashes, Windows restarts it after 10 seconds, then 30 seconds, then 60 seconds. It listens on `http://0.0.0.0:8443`.
Firewall rule	Zeyto Edge LAN 8443	Allows the shop network on the Private and Domain profiles only. A PC on a Public profile cannot reach it.

Start Menu items

The installer adds a Zeyto folder to the Start Menu. These are the tools you will use in this chapter.

START MENU ITEM	WHAT IT DOES
Zeyto ERP	Opens the ERP window.
Zeyto POS	Opens the till window.
Zeyto LAN URL	Shows the address other PCs and phones type. It reads `lan-url.txt`.
Restart Zeyto Edge	Restarts the Edge service and waits up to 180 seconds for it to answer the health check.
Back up Zeyto data	Writes a plain backup file (section 3).
Restore Zeyto data	Restores such a file. Asks you to type RESTORE.
Reset Zeyto login	Resets a forgotten login or creates an Administrator, using the recovery key file.
Zeyto Support Report	Collects a report for support.

START MENU ITEM	WHAT IT DOES
Zeyto Support Console (read-only)	Lets support read the database. It cannot change anything.

If a Zeyto database already exists

When the installer finds data from an earlier install, it shows an existing-data page. Choose **Keep my data** or **Delete my data**. Tick **Back up my data first** to take a backup before anything changes. If nobody can sign in, choose **I cannot sign in - let me set a new login now** to set a new login during the install. For scripted installs there are silent flags: `/BACKUPTO` to take a backup first, `/CLEARDATA=DELETE-ZEYTO-DATA` and `/PURGEDATA=DELETE-ZEYTO-DATA` to remove data. Both delete flags need the exact phrase, so a typing slip cannot erase a database. The uninstaller asks whether to back up and whether to delete the data. The default is to keep it.

Install the server and add a workstation: tutorial

1. **Choose the server PC.** Pick a Windows PC that stays on during shop hours. It holds the database.
2. **Run the server installer.** Run `zeyto-setup-latest.exe`, downloaded from the Zeyto download page. Follow the pages.
3. **Answer the data page.** On a PC that never had Zeyto the existing-data page does not appear. On a PC that had it, choose Keep my data unless you want a clean start, and tick **Back up my data first**.
4. **Check it is running.** Open a browser on that PC and go to `http://localhost:8443/healthz`. The answer includes the version and the licence state.
5. **Activate.** Open `Start Menu ▸ Zeyto ▸ Zeyto ERP`, then `Settings ▸ License`, paste the key and press `Activate`. Then use `Start Menu ▸ Zeyto ▸ Restart Zeyto Edge`.
6. **Find the address.** Open `Start Menu ▸ Zeyto ▸ Zeyto LAN URL`, or open `Settings ▸ LAN Security`. Use the address marked **Best guess**.
7. **Add a workstation.** On another PC run `zeyto-client-setup-latest.exe`. Or type the address into a browser. A phone on the same Wi-Fi can scan the QR code on LAN Security.
8. **If the other PC cannot connect.** On the server, set the network profile to Private, then try `http://server-ip:8443/healthz` from the other PC, replacing server-ip with the real address.

Not verified in code: the first-run set-up where a brand-new install creates its first Administrator. The sign-in screen has a link "Set up the system" under the text "First time on this computer?", but the steps behind it were not traced. The sources read describe the existing-data page and the recovery tool only.

TIP

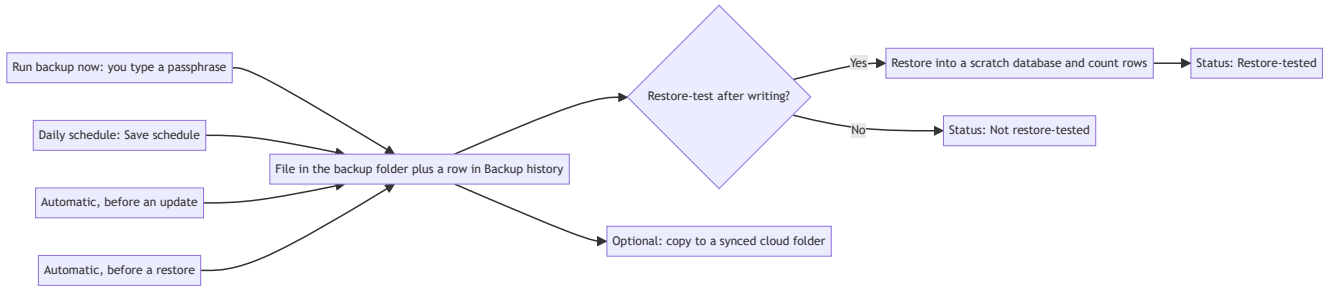
Encryption on the shop network is off by default. Plain HTTP is fine on a private shop network. On shared Wi-Fi turn it on: ask whoever looks after the PC to set `Zeyto:Tls:Enabled` to true and restart Zeyto Edge. Each device must then trust the Zeyto certificate once. `Settings ▸ LAN Security` has the download and the steps.

> Source: `docs/operations/installer-and-recovery.md`, `docs/operations/system-map.md`, `installer/Zeyto.iss`, `installer/Zeyto-Client.iss`, `docs/operations/release-runbook.md`, `src/Zeyto.Web/src/help/content/settings-system.ts`

3. Backups and restore

A backup is a copy of everything: every company on the computer, with documents, masters, settings and users. Zeyto treats a backup as safe only after someone has restored it into a scratch copy and counted what came back. A file that was written but never tested shows as **Not restore-tested**.

The ways a backup is made



Where backups come from. The Made by column in Backup history says Manual, Automatic, Before update or Before restore. The last two are safety copies that Zeyto takes on its own.

KIND	FILE	PROTECTION
Run backup now (in the app)	`.zbk`	Encrypted (AES-GCM) with your passphrase of at least 12 characters. Zeyto never stores the passphrase. A lost passphrase means the file can never be opened.
Daily scheduled backup	`.pgdump`	Not encrypted on a local disk or drive. Keep that folder where only trusted people can read it.
Start Menu, Back up Zeyto data	`Zeyto-backup-STAMP.pgdump` plus an `.info.txt` in `Documents\Zeyto Backups`	A plain file. The tool checks it with `pg_restore --list` before it says it is done.

The dump is written with PostgreSQL `pg_dump` in compressed form (zstd level 3).

How long backups are kept (GFS retention)

GFS means grandfather, father, son: many recent copies, fewer older ones. Automatic backups follow these limits. Backups you take by hand are never removed automatically.

SETTING	KEEP	MEANING
KeepDaily	7	The last 7 daily copies
KeepWeekly	4	4 weekly copies
KeepMonthly	12	12 monthly copies
KeepPreUpgrade	5	The last 5 copies made before an update

SETTING	KEEP	MEANING
KeepPreRestore	5	The last 5 copies made before a restore

ILLUSTRATIVE FIGURES

How far back can you go?

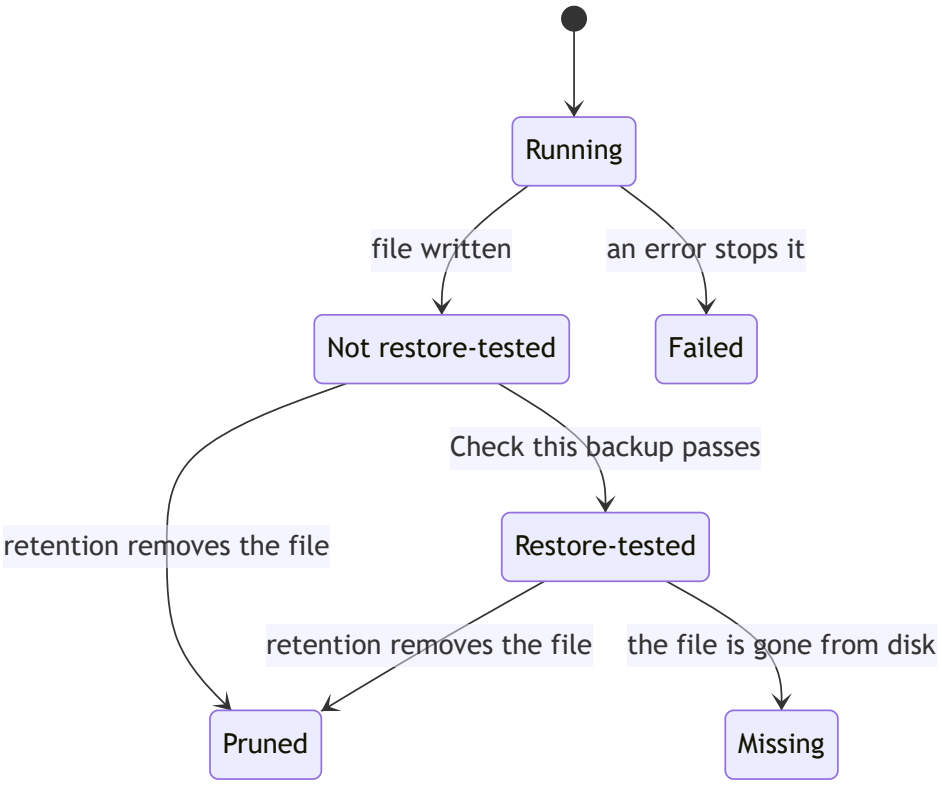
A shop runs the daily backup at 02:00 and leaves retention at the defaults. It has run for more than a year.

YOU WANT TO GO BACK	WHAT EXISTS
Up to 7 days	A copy for each of the last 7 days (7 files)
About 1 month	4 weekly copies (4 files)
About 1 year	12 monthly copies (12 files)
Total automatic copies	7 + 4 + 12 = 23 at most
Safety copies	Up to 5 + 5 = 10 more, from updates and restores

So at most 23 + 10 = 33 files sit in the folder at any time. The Backup history list shows the newest 50 rows, which is enough to see all of them. A file removed by the retention rule shows the File state `Pruned`. A file that should be there and is not shows `Missing`.

Not verified in code: how the weekly and monthly copies are chosen, and whether one file can fill more than one role. If it can, the total is lower than 23. The limits themselves come from the backup options.

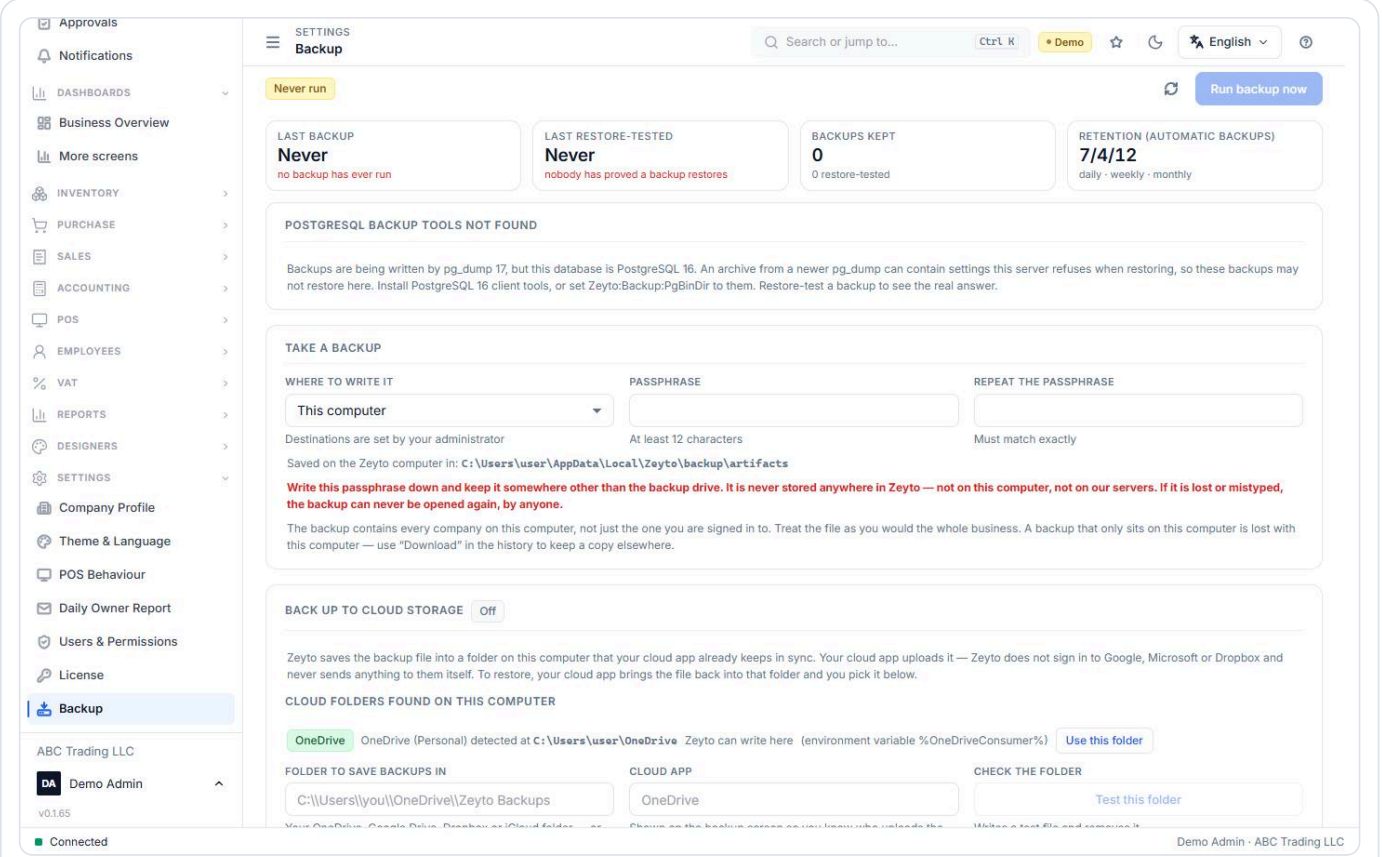
The life of a backup



Backup status. Status and File state are two columns. Status is Restore-tested, Not restore-tested, Running or Failed. File state is On disk, Pruned or Missing. The row also shows Restore evidence: how many documents and ledger entries came back, or why the test failed.

Take a backup and turn on the daily one: tutorial

1. **Open the screen.** Go to `Settings ▸ Backup`. The tiles show Last backup, Last restore-tested, Backups kept and Retention (automatic backups).
2. **Choose where.** Under **Take a backup** pick the destination in **Where to write it**. A destination marked not available, such as an unplugged drive, cannot be chosen.
3. **Type the passphrase.** Enter a **Passphrase** of at least 12 characters and repeat it in **Repeat the passphrase**. Write it down and keep it away from the backup drive.
4. **Run it.** Press `Run backup now`. The file appears in Backup history marked Not restore-tested.
5. **Prove it.** Press `Restore…` on the row, enter the passphrase and press `Check this backup`. Zeyto restores into a temporary copy and changes nothing. When it passes, the row shows Restore-tested.
6. **Schedule it.** Under **Scheduled backup (automatic)** tick **Run a daily backup automatically**. Choose **Where to write it**, set **Daily time (24-hour)**, for example 02:00, and set **Restore-test after writing** to Never, The monthly copy or Every backup.
7. **Save.** Press `Save schedule`. It starts within a minute with no restart.



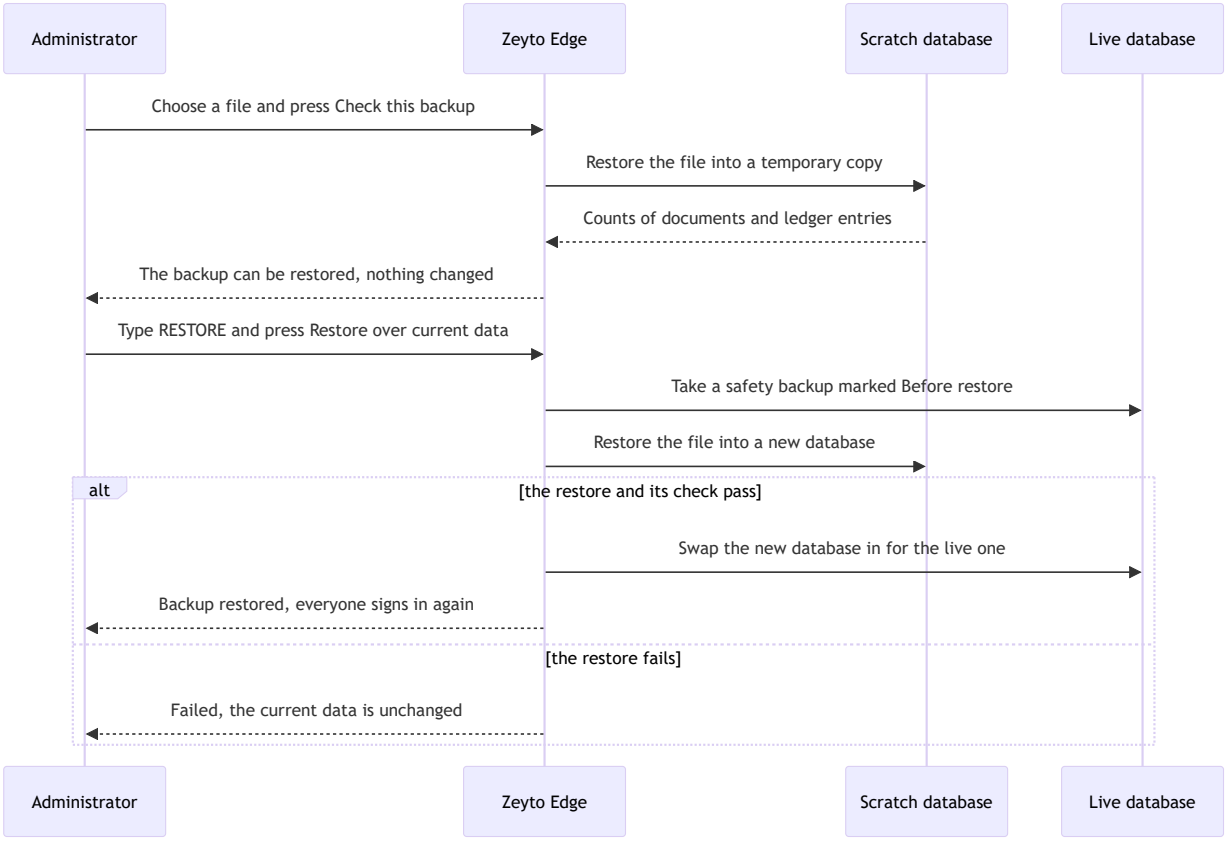
Settings, Backup on a new installation. The four tiles read Last backup, Last restore-tested, Backups kept and Retention (automatic backups), which shows 7/4/12 for daily, weekly and monthly. The card Take a backup holds Where to write it, Passphrase and Repeat the passphrase, and a red note about writing the passphrase down. Below it the card Back up to cloud storage is Off and lists a OneDrive folder it found, with Use this folder. The warning card about PostgreSQL backup tools appears because the backup tool version did not match the database version on this test machine.

> **WARNING**
>
> A backup that sits only on the Zeyto computer is lost with that computer. Keep a second copy somewhere else. Press `Download` on a row to save the file to the computer you are using. Files bigger than about 1.5 GB must be copied from the backup folder on the Zeyto computer instead. Download needs a high administrator permission (`security.create`).

Cloud backup

Zeyto does not sign in to any cloud service. Instead it saves the file into a folder on the PC that your cloud app already keeps in sync: OneDrive, Google Drive, Dropbox or iCloud. Open the card **Back up to cloud storage**, pick the folder under **Folder to save backups in**, press `Test this folder` , then `Save cloud folder` . To get a nightly copy, also choose that folder as the destination of the daily backup. The card needs the BackupCloud feature in your licence. The schedule and the cloud folder are saved on the Zeyto computer, not inside backups, so set them again after a move.

Restore: the flow



Restore. The live data is replaced only after the backup has been restored and checked in a separate database. A failed restore changes nothing. The Start Menu tool **Restore Zeyto data** follows the same idea: it asks you to type RESTORE, takes a safety backup, restores into a database named with a "restoring" suffix and then renames it.

Restore a backup: tutorial

1. **Warn everyone.** Restore replaces everything for every company on this computer. Entries made after the backup are lost. Everyone must sign in again afterwards.
2. **Choose the file.** In `Settings ▸ Backup ▸ Backup history` press `Restore…` on its row. For a file from another computer use "...or bring one from another computer" and pick the `.zbk` or `.pgdump` file. A very large file is copied into the backup folder on the Zeyto computer, its name typed under **Register a copied file**, and `Register copied backup` pressed.
3. **Enter the passphrase.** Only encrypted `.zbk` files need one. Plain `.pgdump` files need none.
4. **Check first.** Press `Check this backup`. Read the counts.
5. **Confirm.** Type `RESTORE` in the box and press `Restore over current data`.
6. **Watch.** The screen lists the steps and names the safety copy it took first.
7. **Finish.** When it says the backup was restored, sign in again and check the numbers (see Check yourself).

RULE

Restore is refused while phones or branches (sync devices) are registered. The Reset Company Data tool is also refused while a restore is running.

ILLUSTRATIVE FIGURES

A wrong import was posted at 11:00. Restore or roll back?

At 11:00 on 13/11/2026 a staff member imported the wrong customer file. The daily backup of 02:00 is good and has been restore-tested.

OPTION	WHAT YOU LOSE	WHEN TO CHOOSE IT
Roll back the import in Import Center	Only the rows that import created or changed.	The import is the only problem. This is the first choice.
Restore the 02:00 backup	Everything every user entered between 02:00 and the restore, 9 hours or more of sales and receipts.	Damage reaches beyond the import and cannot be undone any other way.

The restore also takes a safety copy of the current data first, so you can go back to "now" if you restored by mistake. That copy is the Made by value **Before restore**.

> Source: `src/Zeyto.Edge/Backup/BackupOptions.cs`, `src/Zeyto.Edge/Backup/RestoreVerifier.cs`, `src/Zeyto.Edge/Backup/LiveRestoreEngine.cs`, `src/Zeyto.Edge/Backup/CloudBackupStore.cs`, `installer/scripts/backup-zeyto-data.ps1`, `installer/scripts/restore-zeyto-data.ps1`, `src/Zeyto.Web/src/help/content/settings-system.ts`

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4. Updates: how a new version arrives safely

An update replaces the program and may change the database layout. Zeyto protects the data in three steps: a snapshot before any change, migrations that either finish or leave nothing behind, and a health check afterwards.

Getting the update

Open `Settings ▸ Software Update`. The boxes show **Running version**, **Published version** and **Release channel** (normally stable). Press `Check now`. If a newer version exists, press `Download update`. Zeyto fetches the installer and checks its SHA-256 fingerprint against the one in the Zeyto download list. Downloading installs nothing. The **Staged installer** card then shows the version, when it was downloaded and that it was verified. The file is checked again right before it runs.

On a standard install the card says "In-product installation is disabled on this site". An administrator then runs the installer from the updates folder under `C:\ProgramData\Zeyto` on the server computer, or runs the newest installer from the download page over the old one and keeps the data.

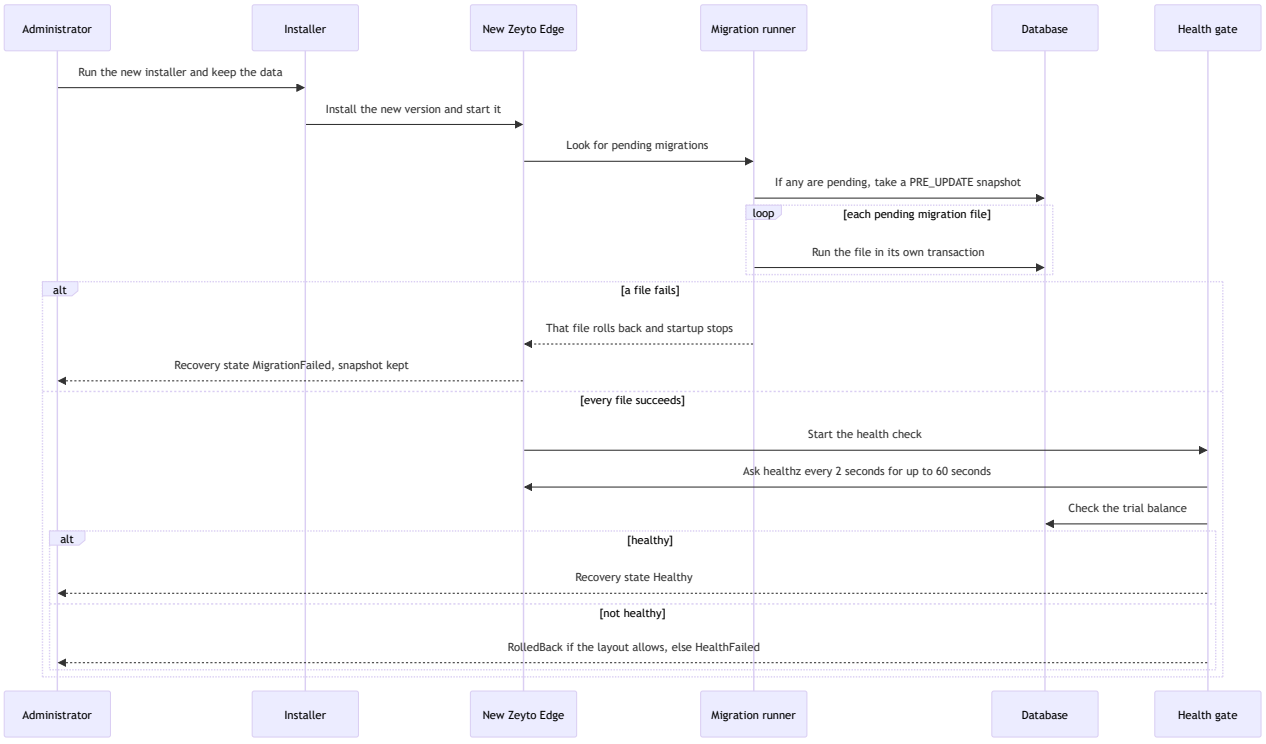
Update safely: tutorial

1. **Back up first.** Take and test a backup (section 3). Do not rely only on the snapshot Zeyto takes itself.
2. **Close POS shifts.** Zeyto refuses to install while a POS shift is open unless you tick "Install even if a POS shift is still open".

3. **Warn the staff.** Everyone is signed out for a minute or two.
4. **Install.** Run the new installer on the server PC and choose **Keep my data**.
5. **Check the result.** Open `http://localhost:8443/healthz` and read the version. Open `Settings ▸ Software Update` and read **Recovery state**.
6. **Sign in and spot-check.** Open the Trial Balance and a recent invoice.
7. **Update workstations.** Zeyto Client PCs follow the server version.

Not verified in code: whether Zeyto Client PCs update themselves or must be reinstalled by hand. The sources read describe the server update only.

The update sequence



What happens during an update today. A migration is a numbered SQL file. The runner takes a database lock so only one runs at a time, runs each file in its own transaction and records it in `schema_migration`. If the snapshot cannot be taken the update stops before any change (SnapshotFailed). The snapshot is skipped on a fresh install, in development, on a demo database, or when `Zeyto:Update:PreUpgradeSnapshot:Enabled` is switched off.

RECOVERY STATE	WHAT IT TELLS YOU	WHAT TO DO
None or Healthy	The last update finished cleanly.	Nothing.
RolledBack	The previous version was put back.	Download the Diagnostics Bundle and tell support.
SnapshotFailed	The pre-update copy could not be made, so nothing was changed.	Free disk space or fix the backup destination, then try again. Keep a Diagnostics Bundle.

RECOVERY STATE	WHAT IT TELLS YOU	WHAT TO DO
MigrationFailed	A migration file failed and rolled back.	Do not reinstall blindly. Keep a Diagnostics Bundle and call support. The snapshot is the recovery point.
HealthFailed	The new version started but did not pass the health check.	Same as MigrationFailed.

ILLUSTRATIVE FIGURES

Three pending migrations, the second one fails

An update carries migration files A, B and C. B contains an error.

STEP	RESULT	`SCHEMA_MIGRATION` AFTERWARDS
Snapshot	A PRE_UPDATE copy is taken. It appears in Backup history as Made by: Before update.	Unchanged
File A	Runs in its own transaction and commits.	A recorded
File B	Fails. Its transaction rolls back, so none of its changes remain.	A recorded, B not
File C	Never runs. Startup stops.	A recorded, B and C not
Screen	Recovery state shows MigrationFailed.	

The database is whole: it is at the state after A, with no half-applied B. Support can fix B and run the update again, or restore the snapshot.

NOT BUILT YET

Side-by-side updates are groundwork only. The idea is to stage the new version in its own folder, switch to it, and keep the old one so a switch back is instant. The script `swap-version.ps1` has the actions stage, activate, rollback, status and prune. Customer installs use the layout `inplace-v1` (recorded in `layout.json`), so Zeyto cannot swap back to the old program by itself. The Software Update screen says so under **Rollback eligible here**. Customer machines also cannot be pushed back from Zeyto's side: an installed release stays installed. This is why your own tested backup before each update matters.

> Source: `src/Zeyto.Edge/Data/MigrationRunner.cs`, `src/Zeyto.Edge/Update/MigrationSnapshotGate.cs`, `src/Zeyto.Edge/Update/UpdateHealthGate.cs`, `src/Zeyto.Edge/Update/UpdateRecovery.cs`, `installer/SIDE-BY-SIDE-UPDATES.md`, `installer/scripts/swap-version.ps1`, `docs/operations/release-runbook.md`, `src/Zeyto.Web/src/help/content/settings-system.ts`

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5. Moving data: a new computer, Emeron, Tally and Excel

Move Zeyto to a new computer

The data moves in a backup. The licence does not move: it is tied to the machine and must be released and activated again. The order matters.

1. **Back up the old PC.** Use `Settings ▸ Backup`, or `Start Menu ▸ Zeyto ▸ Back up Zeyto data` for a plain file. Copy the file to a USB drive or a cloud folder.
2. **Install Zeyto on the new PC.** Run the server installer (section 2).
3. **Restore before you activate.** Restore your backup with `Settings ▸ Backup` or `Start Menu ▸ Zeyto ▸ Restore Zeyto data`. The identity tied to the licence is stored in the data, so activating first wastes a seat.
4. **Release the old PC.** Sign in to the customer portal at zeyto.app/my, open Licences, find the old device and press `Release`. Do this even if the old computer is dead.
5. **Activate.** On the new PC open `Settings ▸ License`, paste the key and press `Activate`.
6. **Restart.** Use `Start Menu ▸ Zeyto ▸ Restart Zeyto Edge`.
7. **Reconnect people.** Give the new LAN address to workstations and browsers. Pair phones and remote PCs again with a new code. Everyone signs in again.

These files do not travel with the data: `license.zlic`, `pg.secret`, `server-recovery.key`, the token signing key (so all sign-ins end) and the clock anchor. The new install makes its own. The backup schedule and the cloud folder are not inside backups either, so set them again.

ILLUSTRATIVE FIGURES

Why activating first fails

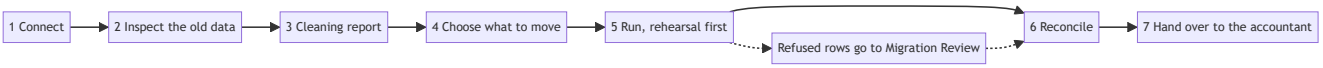
A licence allows 1 device. The old PC is active.

ORDER	STEP	RESULT
Wrong	Activate on the new PC first	The licence server refuses with `DEVICE_LIMIT` because the old device still holds the one place.
Right	Restore, release the old device, then activate	The new PC takes the free place. The old PC can no longer activate with that key.

Migrate from Emeron with the Zeyto Migrate tool

Zeyto Migrate is a separate download. It is a zip of about 76.7 MB (76,653,207 bytes), shipped with release 0.1.48 on 31/10/2026: `https://downloads.zeyto.app/Zeyto-Migrate-Tool-0.1.48.zip`, also offered on the Zeyto download page. It has a wizard and a command-line version. It needs Edge 0.1.47 or newer and a Zeyto user who holds the **Migration review** permission (`accounting.migration`).

The tool never writes into Zeyto's tables directly. It replays each Emeron document through the same Submit route a user would use, in date order. Every Zeyto rule therefore applies: posting maps, VAT, period locks and permissions. A row that Zeyto refuses goes to the queue at `Settings ▸ Migration Review` with the reason.



The wizard. The default run is a rehearsal (a dry run) that posts nothing. A real run is repeatable: the tool records what it has moved in `legacy_map`, so running again does not duplicate documents. Emeron stores passwords as plain text and the tool never copies them. People get new Zeyto passwords.

The command-line verbs are `sources`, `inspect`, `masters`, `replay --types ... --dry-run`, `reconcile`, `archive` and `audit`. The wizard covers the same ground with buttons. Opening balances use the opening-balance suspense account 3900. The Legacy Archive keeps every old row with no live Zeyto record, read-only and searchable, at `Settings ▸ Legacy Archive`.

The reconcile step writes `reconciliation.xlsx` with a **Migration certificate**. The certificate gives one verdict: SIGN-OFF READY, SIGN-OFF AFTER REVIEW or NOT READY.

ILLUSTRATIVE FIGURES

Tying a rehearsal back to the old books

The accountant moves one year of sales invoices. The control totals must tie: source equals posted plus waiting.

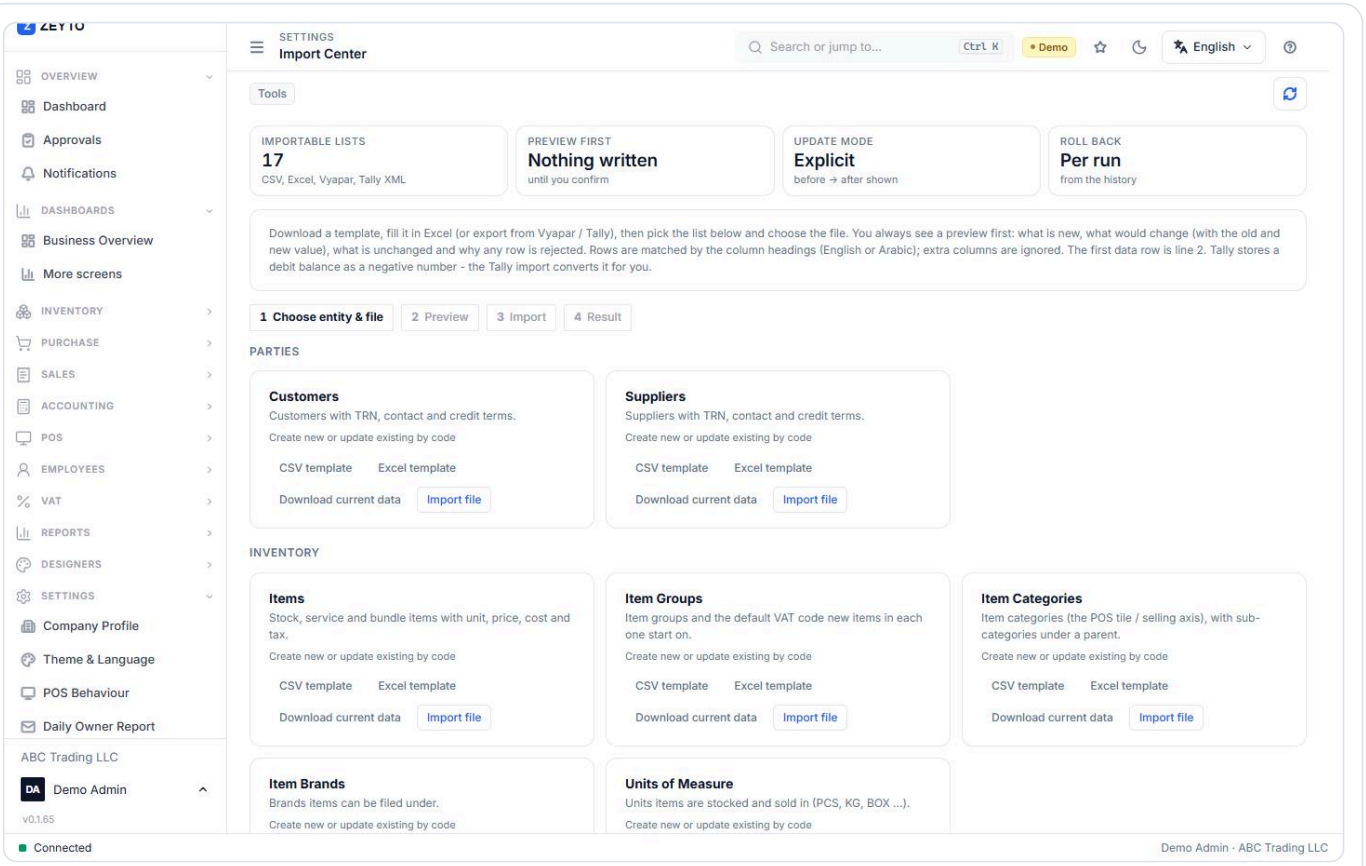
	INVOICES	TOTAL (AED)
In Emeron	1,200	2,468,150.00
Posted in Zeyto	1,188	2,441,320.00
Waiting in Migration Review	12	26,830.00
Posted plus waiting	**1,200**	**2,468,150.00**

1,188 + 12 = 1,200 and 2,441,320.00 + 26,830.00 = 2,468,150.00, so nothing is lost. The 12 waiting invoices must be corrected and posted, or skipped with a written reason, before the accountant signs off.

Not verified in code: the exact rule that picks the verdict on the certificate. The figures above are for teaching the tie-out only.

Not verified in code: which document types beyond masters and sales invoices the current tool replays. The architecture note says the first phase covers masters and sales invoices, and the Migration Review help says other types are supported.

Import Center: masters, openings, Tally and Excel



Import Center. The tiles say 17 importable lists, that nothing is written until you confirm, that the update mode is explicit and that roll back works per run. The step bar reads 1 Choose entity & file, 2 Preview, 3 Import and 4 Result. Each card, such as Customers or Items, has CSV template, Excel template, Download current data and Import file.

For a clean start without Emeron, or to bulk-load or bulk-edit lists, use `Settings ▸ Import Center`. The steps are **Choose entity & file**, **Preview**, **Import** and **Result**. Nothing is written until you confirm after the preview.

Import Center, card: Customers CSV template | Excel template | Download current data | **Import file**

SOURCE	MODE	BLANK CLEARS THE VALUE
Auto-detect	Create new only	off

PREVIEW COUNTS	ROWS
New	180
Update	0
Unchanged	0
Duplicate in file	1
Rejected	3

The mock shows the working area. The numbers are illustrative. The sources and modes are the real ones:

- **Source:** Auto-detect, Generic template, Vyapar or Tally XML. A `.xml` file is always read as a Tally export.
- **Mode: Create new only** (the default) adds new codes and rejects a code that already exists. **Update existing by code** changes existing records and rejects a code not found. **Create or update** does both.

- **Opening cards:** Opening - Accounts, Opening - Customer / Supplier Bills and Opening - Stock. They also ask for Fiscal year, Opening date and, for stock, Default warehouse.

Load a list for the first time: tutorial

1. **Open the card.** In `Settings ▸ Import Center` find the card, for example Customers. Press `Excel template` or `CSV template`.
2. **Fill the Data sheet.** The first row is an example whose first cell starts with EXAMPLE-. It is ignored. The Fields sheet explains every column in English and Arabic. The Code column identifies each record. Never change the code of a record that exists.
3. **Choose the file.** Press `Import file`. Leave Mode on Create new only. Press `Choose file`.
4. **Read the preview.** Each row is New, Update, Unchanged, a Duplicate in file or Rejected, with a reason for a reject. Open **Column mapping** to see which of your columns were read.
5. **Fix rejects.** Press `Download rejects`. The XLSX holds the original columns plus Line, Import status and Reason. Fix it and import that file again.
6. **Import.** Press the Import button, which names the row count, and confirm the dialog.
7. **Check.** Scroll to **Import history**. The run is listed with its counts.

> **RULE**
> Import order matters. A group, unit, VAT code, account, party, item or warehouse that does not exist is rejected by name, so import the list it points at first: units and groups, then items, then Opening - Stock. Amounts take 2 decimals, quantities 4, unit prices and costs 4 and rates 6. A number with more decimals is rejected, never rounded. Dates are written YYYY-MM-DD, and a day-first date such as 15/12/2025 is accepted too.

Tally and Vyapar

- **Tally.** Export the masters as XML. Sundry Debtors become customers and Sundry Creditors become suppliers. Their balances appear on Opening - Customer / Supplier Bills as invoice OPENING. Bank, cash and other ledgers become Chart of Accounts rows with balances in Opening - Accounts. Stock items, units, groups and categories are read too. Tally stores a debit as a negative number, and the import converts it: a debtor balance of -1500.00 becomes a debit bill of 1,500.00. **Vouchers in the file are not imported.** The ledger's opening balance carries the open amounts.
- **Vyapar.** Export items and parties to Excel or CSV and leave Source on Auto-detect. Import items and parties first. In the party balances, "To receive" is read as a debit and "To pay" as a credit.

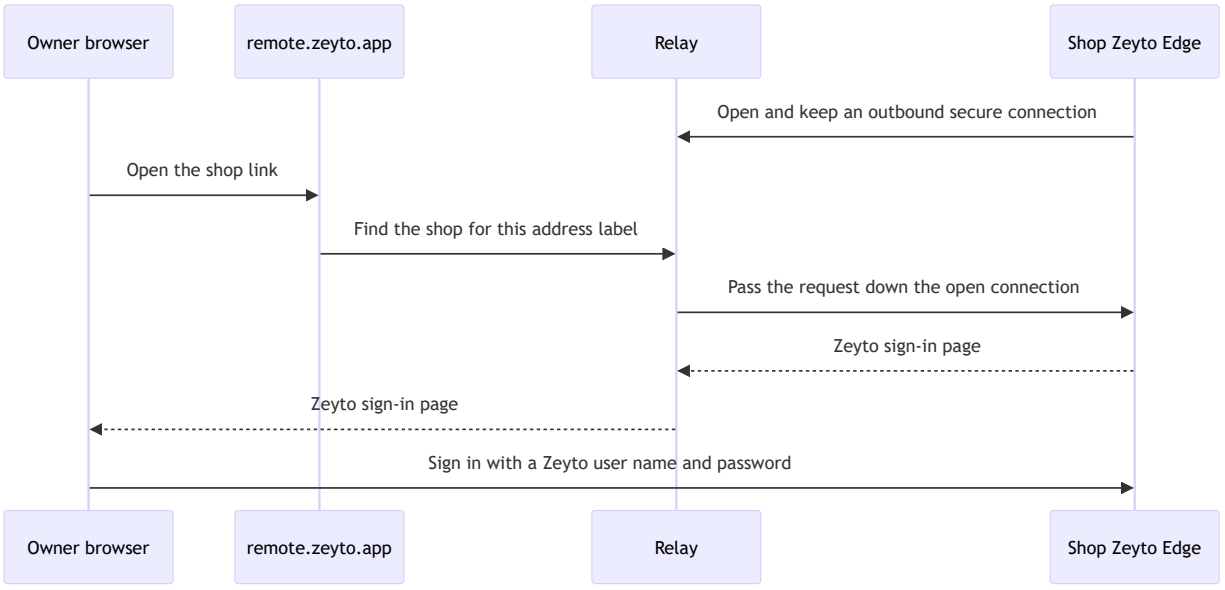
Undo an import

Scroll to **Import history**, find the run and press `Roll back`. Zeyto shows first what it will do. Records the run created are moved to the Recycle Bin when nothing has used them, and made inactive otherwise. Opening documents are cancelled with a reversal. Records the run only updated are not changed back. Their old values are in the **Download result** file, which you can import again in Update mode.

> Source: `docs/operations/moving-to-a-new-computer.md`, `docs/architecture/emeron-to-zeyto-migration.md`, `src/Zeyto.Migrate.App/README-Accountants.txt`, `src/Zeyto.Web/src/help/content/settings-operations.ts`, `src/Zeyto.Web/src/help/content/settings-system.ts`

6. Remote access: the relay and per-shop addresses

Inside the shop, devices open the LAN address. Away from the shop they use the relay. The shop server keeps one outbound secure connection (a websocket over TLS) to `relay.zeyto.app`. Because the shop dials out, you need no router settings and no fixed internet address. Remote access works only while the server PC is on and online. Everyone still signs in with their own user name and password and takes a licensed seat: a Web seat in a browser, a desktop seat in Zeyto Client, a mobile seat on a phone.



A remote link. A link looks like `https://your-shop-address.remote.zeyto.app/r/` followed by a long code. It opens only your own shop. Each shop has its own address label of 12 characters. Large uploads over about 600 KB need the shop network.

Turn it on and share a link: tutorial

1. **Open the screen.** Go to `Settings ▸ Remote & Mobile Access`.
2. **Allow it.** Tick **Allow remote and mobile access**. It takes effect at once with no restart.
3. **Read the status.** Beside the title, Connected means it works. Waiting usually means a missing licence module. Disconnected or Error shows the reason in the red line. Press `Refresh status` if unsure. The page also refreshes every 15 seconds.
4. **Create a link.** Under **Open your system from anywhere** type a **Name (optional)**, such as Owner at home, and choose **Lasts**: Never expires, 1 day, 7 days, 30 days or 90 days. Press `Create link`. The card needs the Web module.
5. **Send it.** Copy the link from the list and send it. The person signs in with their own login.
6. **Turn a link off.** Press `Turn off` beside it and `Yes, turn off`. It stops at once.

Pair a phone or a Zeyto Client PC

- **Phone.** Check that every line under **Pairing readiness** says OK. You need the Mobile module and a free mobile seat. Press `Generate pairing code`. A QR code and an access code appear. They work once and expire after 5 minutes. In the Zeyto mobile app choose **Scan Access QR**.

- **Zeyto Client PC outside the shop.** Under **Use Zeyto Client from outside the shop** type a Name and press `Create pairing code`. The code works once and expires after 15 minutes. On that PC, Zeyto Client shows "Connect from outside the shop". Type the code there. For a PC that is at the shop right now, press `Ctrl` + `Shift` + `P` in Zeyto Client.

> **TIP**
> For the owner's phone and for branch PCs, make the link Lasts 30 days or less and renew it. A link that never expires is a standing door into the shop. Turn it off when someone leaves.

> **OPERATIONS NOTE FOR ZEYTO STAFF**
> Per-shop addresses of the form `label.remote.zeyto.app` are on since 2026-10-06 (flag `ZEYTO_REMOTE_PER_SHOP_HOSTS`). They use a wildcard certificate that expires on 2027-01-04. It renews on its own through a DNS hook, and that renewal has been proven. Check the date again before it arrives.

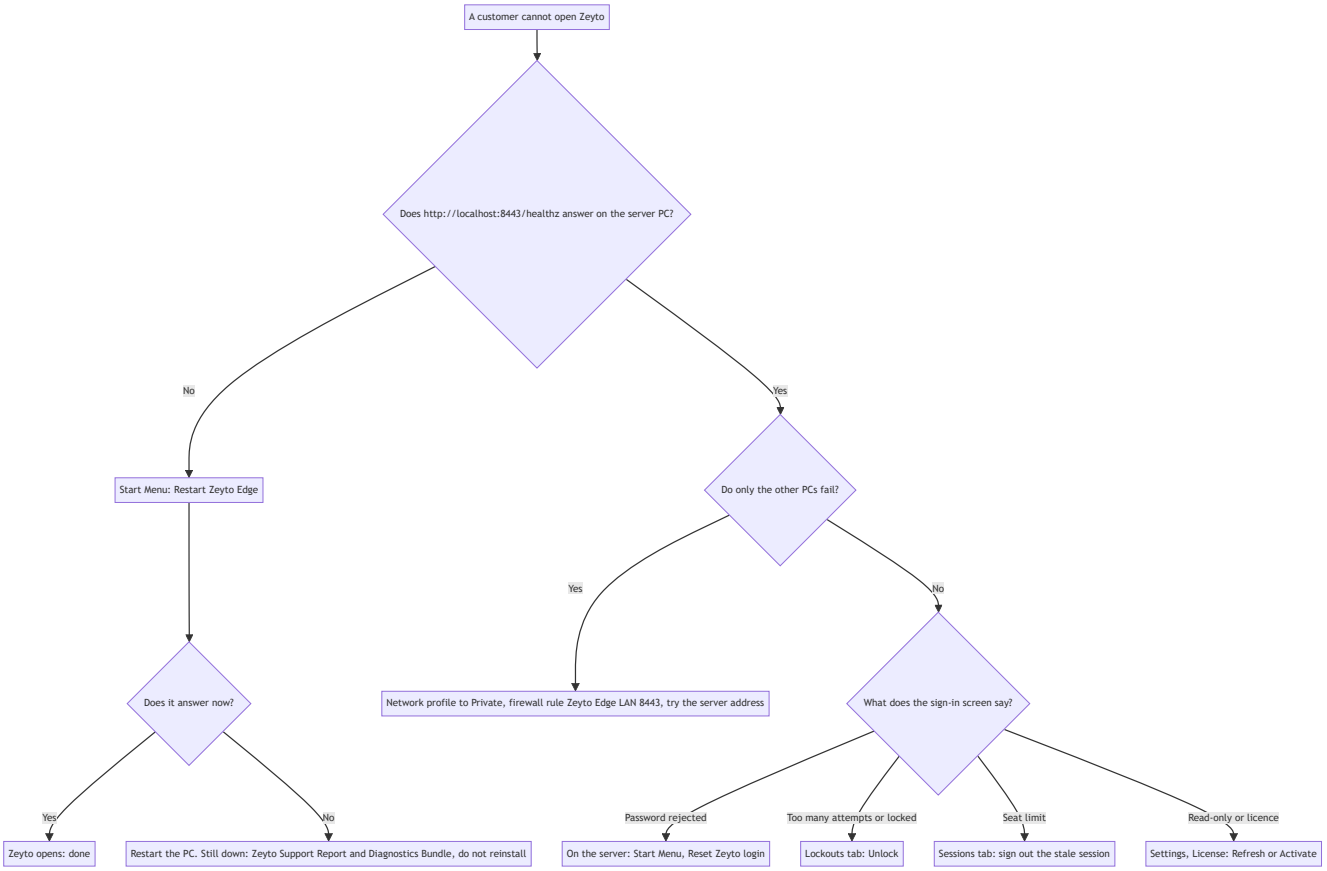
> Source: `docs/operations/remote-per-shop-addresses.md`, `docs/cloud-relay-design.md`, `docs/operations/system-map.md`, `src/Zeyto.Web/src/help/content/settings-system.ts`

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7. When something goes wrong: recovery, support and health

A customer cannot open Zeyto: decision tree

Ask three questions first. Which version (the sign-in footer, or `healthz`)? Which computer: the server or a workstation? What exactly is on screen? Backup, restore, restart and reset are all done on the server.



Decision tree. Start at the top and stop at the first step that fixes it. A licence that has ended makes Zeyto read-only. It never deletes data. A portal password is not the Zeyto password: a customer who reset the password on the website still needs the Zeyto login.

ILLUSTRATIVE FIGURES

Monday morning after a weekend power cut

The shop reopens. The cashier says "Zeyto will not open". Use the tree.

1. **Healthz.** On the server PC the address `http://localhost:8443/healthz` shows nothing. Go to "No".
2. **Restart Edge.** `Start Menu ▸ Zeyto ▸ Restart Zeyto Edge`. The tool waits up to 180 seconds for the health check. A common cause is that Zeyto Edge crashed or started before its database.
3. **Answer.** Healthz now answers with the version and `licensed`. The cashier's screen loads.
4. **Other PCs still fail?** If only the second counter fails, set its network to Private and try `http://server-ip:8443/healthz` from it.

Locked out of Zeyto

1. **On the server PC.** Open `Start Menu ▸ Zeyto ▸ Reset Zeyto login` and accept the Windows prompt.

2. **Type the user.** An existing user name resets that login. A new name creates an Administrator. Add a name and an optional email.
3. **Set the password.** Type the new password twice. It must meet the Security Policy.
4. **Sign in.** The data is untouched.

The tool reads the recovery key file kept on the server. A successful reset rotates that key, clears the login throttle for that user, releases the user's seats and writes an audit line. A wrong code is audited and never rotates the key. The tool exists from Zeyto Server 0.1.15. Older versions have no reset tool.

Support levels

LEVEL	WHO	WHAT THEY USE
0	The customer	The Start Menu items: Restart Zeyto Edge, Back up, Restore, Reset Zeyto login, Support Report.
1	Helpdesk	The healthz answer and the customer portal.
2	Support, in the app	A time-limited read-only support access (below).
3	Support, database read-only	`support-db-console.ps1`, which makes a temporary read-only database role named `zeyto_support`.
4	Support, data fix	`support-db-fix.ps1`: preview first, you type APPLY, a verified backup is taken, a trial-balance guard runs, and it refuses to touch ledger tables such as `gl_entry`.
5	Engineering	Code fixes and a new release.

Let support look at your system: tutorial

1. **Open the screen.** Go to `Settings ▸ Diagnostics Bundle`. You need `security.create`.
2. **Find the card.** The card is called "Let support look at this system".
3. **Pick a time.** Choose 1 hour, 4 hours, 1 day or 3 days.
4. **Open it.** Press `Open support access`. Give the support person the access they are told to use.
5. **Close it.** Press `End support access now` when finished. It also ends by itself at the end of the time.
6. **Check the trail.** In `Settings ▸ Audit Log` the support person appears as `zeyto-support`.

The support identity can only read. It cannot change anything, and it cannot see costs. For a ticket, press `Download bundle` on the same screen to get one file. Automatic error reporting is off by default. If you turn it on you choose how much is sent: Counts only, Counts and messages, or Counts, messages and technical traces.

Health and monitoring

The address `http://localhost:8443/healthz` on the server returns the version, `licensed`, `reasonCode`, `reason`, `graceEndsAt` and `dataMode`. It needs no sign-in, so a script or a phone can check it.

QUESTION	LOOK HERE
Is Zeyto up, and which version?	`healthz`
Is the licence in order?	`Settings ▸ License` and `healthz` (`reasonCode`)
Did something fail?	`Settings ▸ Error Log` , newest first, each with a reference number to quote to support
Who did it?	`Settings ▸ Audit Log`
Did tills send their sales after an outage?	`Settings ▸ Sync Monitor` : waiting, accepted or refused, plus clashes
Did the installer work?	The install log at `C:\Users\Public\Documents\Zeyto\install-zeyto.log`
Are the services running?	Windows Services (`services.msc`): ZeytoPostgres and ZeytoEdge
Last backup and last restore test?	The tiles on `Settings ▸ Backup`

A licence problem has a few possible reasons, shown in plain words on the License screen: not activated, expired, clock set back, or the file could not be verified. Activation can be refused with KEY_NOT_FOUND, DEVICE_LIMIT, LICENCE_EXPIRED, LICENCE_REVOKED or PRODUCT_MISMATCH. DEVICE_LIMIT means release the old PC at zeyto.app/my. PRODUCT_MISMATCH means the customer pasted a key for another Zeyto product.

NEVER DO THIS

Do not reinstall after a failed update before taking a Diagnostics Bundle. Do not paste a database password, the recovery key or a licence key into a chat. If support needs access, use the support window above.

> Source: `docs/operations/support-playbook.md` , `docs/operations/support-levels.md` , `docs/customer-locked-out-guide.md` , `docs/operations/installer-and-recovery.md` , `src/Zeyto.Web/src/help/content/settings-system.ts`

8. The release flow, in plain language

This section is for the owner. It explains how a new Zeyto version gets from the developers to customers, so you know why some things are checked first. The current version number is in `Directory.Build.props` (0.1.65 when this chapter was written).



Release flow. Each deploy script keeps a timestamped backup and rolls back by itself when its health check fails. Customer computers are the exception: an installed release cannot be pushed back, so installer changes go to affected customers first and to everyone later.

The test gates

GATE	WHAT IT PROVES
Edge build	The server program compiles.

GATE	WHAT IT PROVES
Edge tests	The test suite passes. The golden posting tests, which check that the trial balance equals zero, are release-blocking.
Screens build (`npm run build`)	The screens compile and all screen smoke checks pass.
Installer asset tests	The installer holds all its parts.
Platform tests	The licence server and portal pass.
Website build	The public site and portal build.

Deploy order

The order puts the least risky and most depended-on parts first.

STEP	SURFACE	WHY IN THIS PLACE
1	Platform API (`api.zeyto.app`)	Licences, downloads and the customer portal depend on it. Its database changes only move forward, so they must be additive.
2	Relay (`relay.zeyto.app`)	Shop servers reconnect by themselves within a minute.
3	Demo Edge (`demo.zeyto.app`)	A safe place to see the new version run.
4	Country demos	The same version on each country demo; each gets a database dump first.
5	Website and portal (`zeyto.app`)	After the Platform API, because the new site calls the new API. Website first would make customer requests fail.
6	Installers	First to a few customers with a direct link, then to everyone after a clean-machine check.
7	Mobile app	Customers install it by hand, so the release notes say so.

Rollback

SURFACE	HOW IT GOES BACK
Demo Edge, Platform API, Relay	The deploy script rolls back by itself if its health check fails. By hand, restore its last backup archive and start the service.
Country demos	Restore the app folder backup and the database dump taken before the refresh.
Website	Point the live link back to the previous release folder and restart the site service.
Installers	Publish the previous installer files again, or change the download catalogue setting and restart the Platform API.
Customer machines	**Cannot be pushed back.** Customer data is protected by the pre-update snapshot and the backup prompts.

RULE

A release that changes the installer, uninstaller or a recovery path must also be run once on a clean virtual machine: fresh install, upgrade over the old version with data, uninstall and reinstall, Reset Zeyto login, backup and restore.

Source: `docs/operations/release-runbook.md`, `docs/operations/system-map.md`, `Directory.Build.props`

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9. Check yourself and common mistakes

Check yourself

1. On the server PC open `http://localhost:8443/healthz`. The version must equal **Running version** on `Settings ▸ Software Update`, and `licensed` must be true.
2. Open `Settings ▸ Backup`. **Last backup** must be within the last day and **Last restore-tested** must not say Never.
3. Press `Restore…` on the newest file, then `Check this backup`. The counts of documents and ledger entries must be above zero. Do not type RESTORE.
4. Open the folder you chose as the cloud folder. The newest backup file must be in it, and your cloud app must show it as synced.
5. After an update, **Recovery state** on Software Update must read None or Healthy.
6. From a second PC open the address in `Settings ▸ LAN Security`. The sign-in page must load.
7. On `Settings ▸ Remote & Mobile Access` the status must say Connected. Open one link from a phone on mobile data and sign in.
8. After any import or migration, open the Trial Balance: total debit must equal total credit. Then open **Import history** or the certificate and confirm that the counts tie to your source file.

Common mistakes

SYMPTOM	CAUSE	FIX
Other PCs cannot open the server address.	The server network is set to Public, so the firewall rule (Private and Domain only) does not apply. Or the address belongs to another adapter.	Set the network to Private. Try the other addresses on LAN Security.
The backup file cannot be opened.	The passphrase is lost. Zeyto never stores it.	None. Write the passphrase down and keep it away from the backup drive. A plain `.pgdump` file needs none.
Backups exist but nobody ever proved one restores.	Restore-test is set to Never.	Set **Restore-test after writing** to The monthly copy or Every backup, and run **Check this backup** once now.
The only backup was lost with the computer.	The backups sat on the same PC.	Use an external drive or the cloud folder. Press Download on a row.
Restore is refused.	Phones or branches (sync devices) are registered.	Follow Zeyto support. Do not remove devices without advice.

SYMPTOM	CAUSE	FIX
A restore removed this morning's entries.	The backup was older than the entries. Restore replaces all companies on the PC.	Next time use Roll back in Import Center for a wrong import. A "Before restore" copy exists: restore it to get back to the moment before.
Update installed but Software Update says MigrationFailed.	A migration file failed and rolled back.	Do not reinstall. Download the Diagnostics Bundle and call support.
New licence key activated but the old state shows.	Zeyto Edge was not restarted.	Start Menu ▸ Zeyto ▸ Restart Zeyto Edge.
Activation on the new PC fails with DEVICE_LIMIT.	The old PC still holds the licence.	Release it at zeyto.app/my, then activate.
After a move, nobody can sign in with an old session.	The token signing key is new, so all sign-ins end.	Everyone signs in again. This is expected.
Import rows are rejected "not found".	The group, unit, VAT code, account, party, item or warehouse is not loaded yet.	Import the list it points at first.
A remote link no longer works.	It expired (Lasts), was turned off, or the server PC is off or offline.	Create a new link. Check that the server PC is on and shows Connected.
The phone cannot pair.	No free mobile seat, no Mobile module, or the 5 minute code expired.	Check Pairing readiness, then generate a new code.

> Source: `src/Zeyto.Web/src/help/content/settings-system.ts`, `src/Zeyto.Web/src/help/content/settings-operations.ts`, `docs/operations/support-playbook.md`, `docs/operations/moving-to-a-new-computer.md`

OTHER PRODUCTS

Garage Pro: job card to invoice

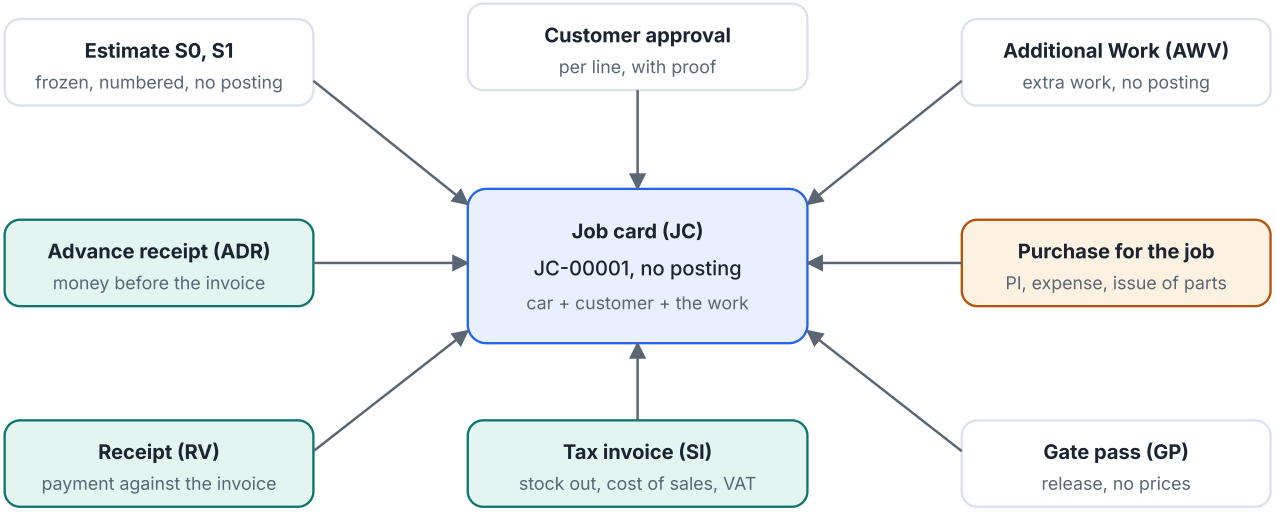
Follow one car from the front door to the gate pass in Zeyto Garage Pro: check it in on one form, get the customer's approval, issue parts once, record labour, invoice, take payment and hand the car over, with the stock and the accounts moving exactly as the product does it.

SCOPE OF THIS CHAPTER

Everything here describes Zeyto Garage Pro release 0.9.8 as it is built in the repository (`zeyto-garage` , branch `main`). Garage Pro is a separate product from the Zeyto ERP: it has its own database, its own installers and its own garage menu. The figures in the worked examples come from the product's golden tests, which assert every ledger row, or are derived by the product's own rules and marked as illustrative.

1. The big picture: one job card, many documents

A garage does not sell one thing. It receives a car, promises some work, finds more work, buys a part for one car, lets a technician spend hours, invoices, and finally lets the car leave. Garage Pro keeps all of this together on one record called the **job card** (document type `JC` , numbered `JC-00001` and up). Every other document of that visit points back to the job card, so the job card screen can always tell you what is approved, what is invoiced and what is still owed.



Everything hangs on the job card. The grey boxes post nothing to the books. The green boxes and the orange box move money, stock and VAT. The job's cost centre (called a job centre, code equal to the job number) tags every journal row of the job, so one report can show the profit of one car.

The nine steps the screen guides you through

The job card shows a stepper with nine steps in the owner's order. You do not need to remember it, because the header always shows one primary button for the next step.

#	STEP	WHAT HAPPENS	POSTS TO THE BOOKS?
1	Check-in	The car, the customer and the complaint are recorded.	No

2	Estimate	The work lines are frozen as a numbered estimate.	No
3	Advance (optional)	The customer pays something before the invoice.	Yes, a liability
4	Approval	The customer says yes to the lines, with proof if the shop asks for it.	No
5	Work	Technicians work, parts are used, extra work may be added.	Only parts issued by hand and purchases
6	Proforma (optional)	A priced draft the customer can read before the invoice.	No
7	Invoice	The tax invoice posts sales, VAT, stock and cost of sales.	Yes
8	Payment	Money is received against the invoice.	Yes
9	Hand over	The gate pass is made and the job becomes Delivered.	No

Where the screens are

The garage menu is short on purpose: about twenty entries for the owner and fewer for everyone else. The front-desk and workshop entries look like this.

MENU GROUP	ENTRIES
Overview	Dashboard, Manager approvals
Front desk	Check-in / New job, Bookings, Job Center, Quick Invoice, Clock Board, Customers, Vehicles
Workshop	Bays & technicians, Recommended – not done
Sales	Estimates / Quotations, Tax invoices, Receipts
Parts	Parts & services, Purchases, Stock
Gate	Check gate pass, Gate pass list
Insurance	Claims register, Insurance companies
Office	Accounts, Reports, Settings

A technician sees only Job Center (renamed **My work**) and the Clock Board. A service advisor sees the front desk, sales and receipts. A permission decides each entry, never a role name.

> Source: `src/Zeyto.Web/src/screens/garageNav.ts`, `src/Zeyto.Web/src/screens/garage/hub/flowRail.ts`, `src/Zeyto.Edge/Data/migrations/9001-garage-foundation.sql`, `GARAGE-HANDOFF.md`

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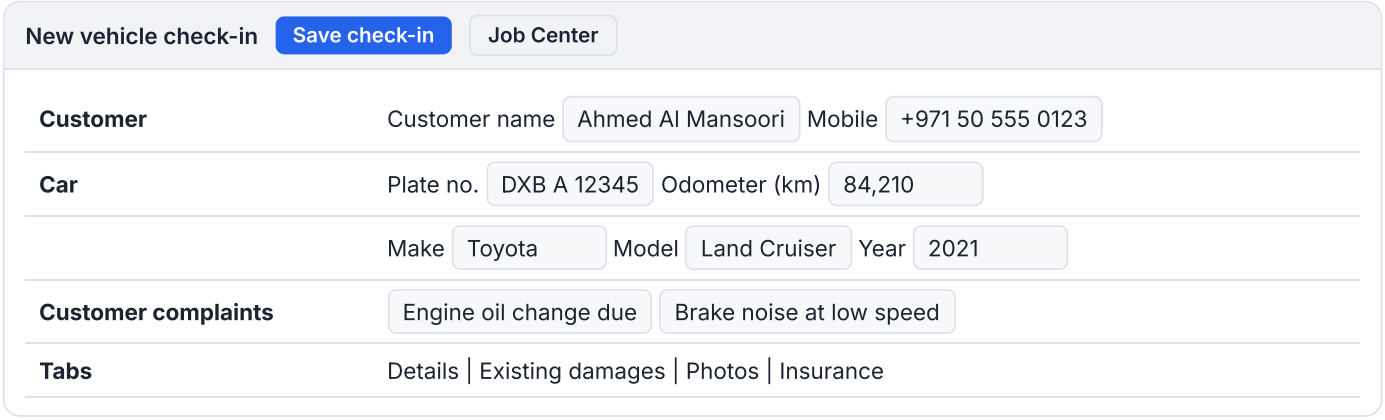
2. Check-in: one form for the car, the customer and the complaint

Check-in is a single form on a single page. There is no wizard and no pop-up asking you to create a customer first. You type what you know and press `Save check-in`. If the customer or the car does not exist yet, the system creates it for you in the same save.

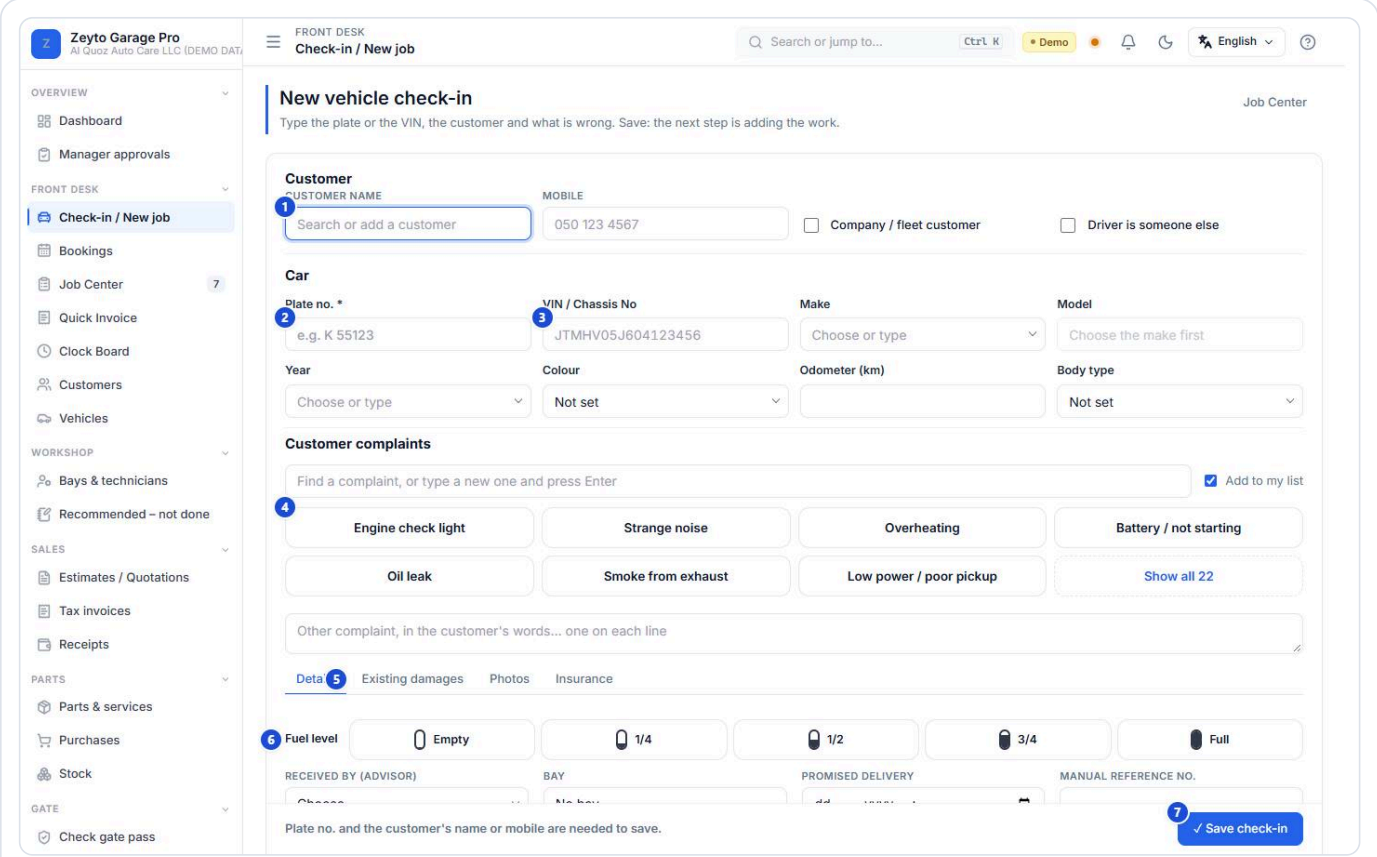
ORDER ON THE FORM

The page header says: "Type the plate or the VIN, the customer and what is wrong. Save: the next step is adding the work." The form itself is ordered Customer first and Car directly under it (owner order of 20 October 2026), then Customer complaints, then tabs for the rest. The plate and the VIN are the two ways the system finds an existing car, whichever field you type in.

1. **Open the form.** Go to `Front desk ▸ Check-in / New job`. The page is called "New vehicle check-in".
2. **Find or type the customer.** In the Customer block type a name and a mobile number. A name or a mobile number alone is enough. Two ticks sit beside them: **Company / fleet customer** and **Driver is someone else**. If the mobile number already belongs to a customer, the form uses that customer and tells you: "This mobile is already a customer".
3. **Find or type the car.** In the Car block type the **Plate no.** (for example K 55123) or the **VIN / Chassis No**. If the customer has cars, they appear as one-tap chips, and a customer with exactly one car gets it picked automatically. A new plate shows one calm line: "New car, it will be saved with this check-in". Enter the **Odometer (km)**. Make, Model and Year are typed dropdowns that also accept a new value.
4. **Write the complaints.** Under Customer complaints, tap the buttons from the complaint master (the most used first) or type the customer's own words, one on each line.
5. **Use the tabs only if you need them.** The Details tab holds Fuel level, Received by (advisor), Bay, Promised delivery, Manual reference no., LPO no. and LPO date, and Remarks. Existing damages and Photos record what the car looked like at the door. An Insurance tab appears for users with the insurance right.
6. **Save.** Press `Save check-in`. Whatever is missing or refused is said in words beside the button. The next screen is the new job card at the Check-in state.



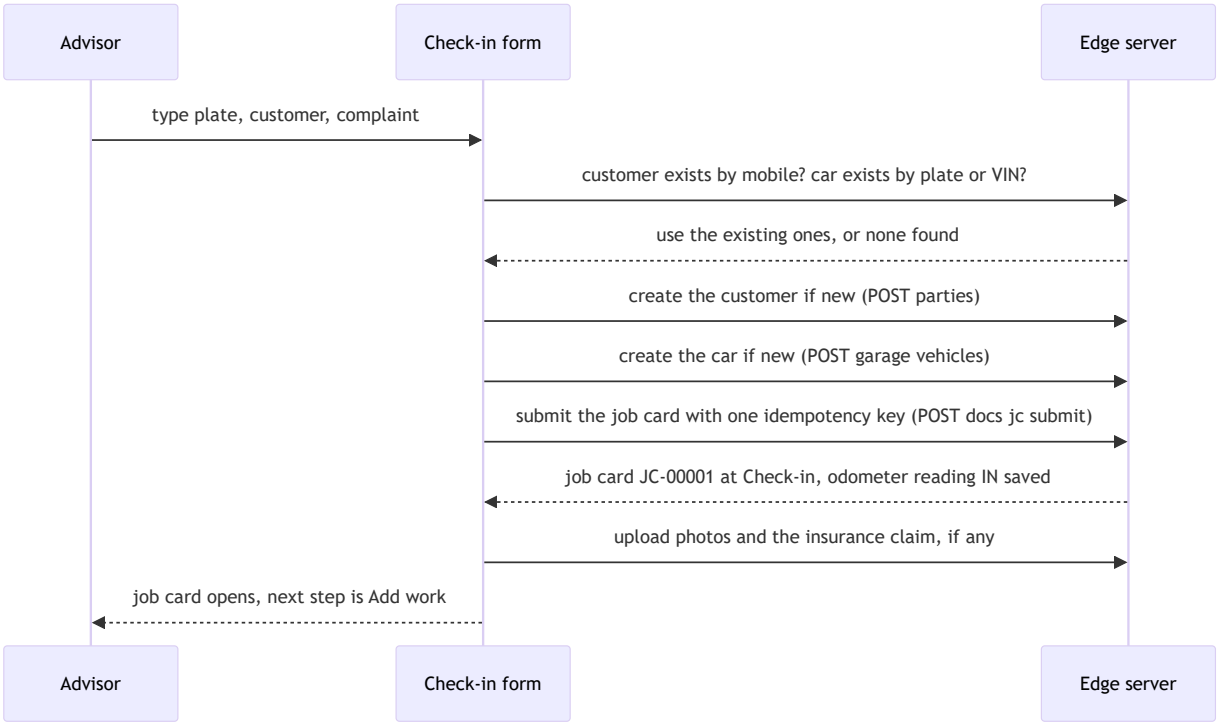
The names, plate and car above are the demo masters that ship in the garage demo (customer Ahmed Al Mansoori, Toyota Land Cruiser 2021 pearl white, plate DXB A 12345). The odometer and complaints are typed for this illustration.



The check-in form. The page subtitle reads "Type the plate or the VIN, the customer and what is wrong", yet the Customer block is drawn first and the Car block under it. The footer line says "Plate no. and the customer's name or mobile are needed to save."

1. Customer name: search an existing customer or type a new one. Beside it sit Mobile and the ticks Company / fleet customer and Driver is someone else.
2. Plate no. is the one required field of the car. Typing a plate the system already knows brings the car back.
3. VIN / Chassis No is the second way to find a car.
4. Customer complaints: tap a button to add that complaint. "Show all 22" opens the whole list, and the box below takes the customer's own words.
5. Tabs for the rest: Details, Existing damages, Photos and Insurance.
6. Fuel level, from Empty to Full, in one tap.
7. Save check-in creates the job card. The footer line tells you what is still missing.

What Save check-in does behind the form



One save, three possible creations. The form keeps the created customer id and car id in memory and sends one idempotency key for the whole save. If the connection drops half way and you press Save again, the customer and the car are not created twice, and a second job card is not made.

- The job card is saved with no lines. The server adds one diagnosis line from the item `GAR-DIAG` (named "Diagnosis"), so a job card is never empty.
- A duplicate plate or VIN is refused with the question "This car is already registered. Use it?" and the buttons `Yes, same car` and `No, a different car`. A plate that is only similar to an existing one asks the same question.
- The odometer is saved as a reading with phase IN. If it is lower than the last reading, the form says so but does not refuse.
- If the car already has an open job, the form says "This car already has an open job" with an `Open it` button.
- An unsaved check-in is kept as a draft in the browser: "Restored your unsaved check-in" with `Discard` and `Keep it`.
- Check-in never asks for an emirate, an engine number or a next-service date. Those live on the vehicle page.

> **TIP**
> The VIN is optional on this form. Type it when the plate is missing, or when the car is new and has no plate yet. A VIN is unique across the company, so typing it also prevents a second record of the same car.

REAL EXAMPLE

What the demo masters give you on day one

The garage demo database carries masters you can use for the first check-ins. These are the exact seeded rows.

OWNER	PLATE	CAR	VIN
Ahmed Al Mansoori	DXB A 12345	Toyota Land Cruiser 2021, Pearl White	JTMHV05J804123456
Emirates Fleet Services LLC	DXB K 48213	Nissan Patrol 2022, White	JN8AY2NY5M9012345
Khalid Al Suwaidi	SHJ 3 27450	Mitsubishi Pajero 2019, Silver	JMBLYV97WKJ004567
Sara Al Hammadi	AUH 5 61834	Honda Accord 2020, Grey	JHMCV1650LC007890

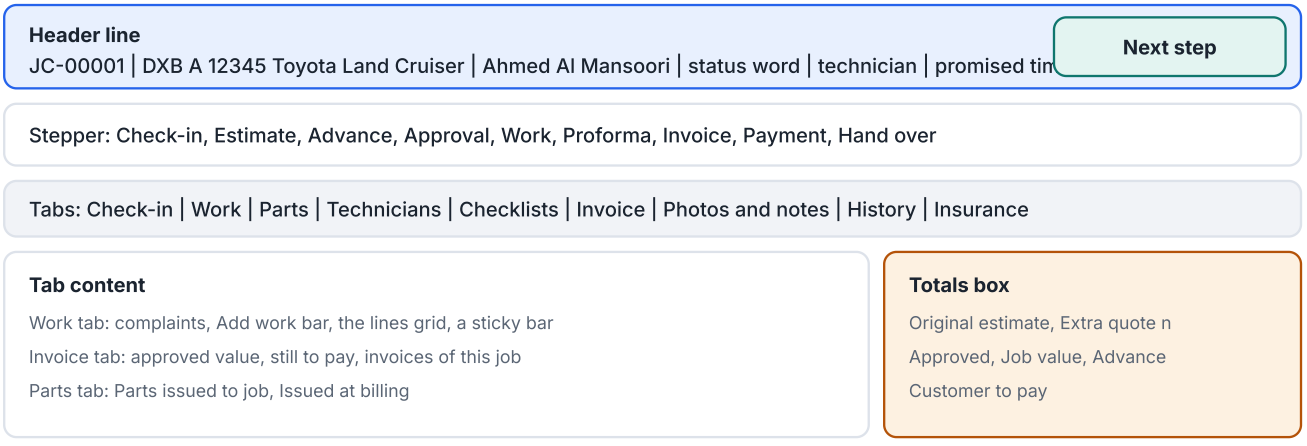
Emirates Fleet Services LLC is a credit customer with a credit limit of 25,000.00 and 30 credit days. The other three are cash customers. The vehicle code is the compact plate key (for example `DXBA12345`), so it never collides with the `VH-00001` series.

> Source: `src/Zeyto.Web/src/screens/garage/intake/CheckInForm.tsx`, `src/Zeyto.Web/src/screens/garage/intake/useJobIntake.ts`, `src/Zeyto.Web/src/screens/garage/car/CarPicker.tsx`, `src/Zeyto.Edge/Data/GarageSeeder.cs`, `src/Zeyto.Edge/Data/migrations/9010-garage-demo-masters.demo.sql`, `src/Zeyto.Edge/Data/migrations/9001-garage-foundation.sql`

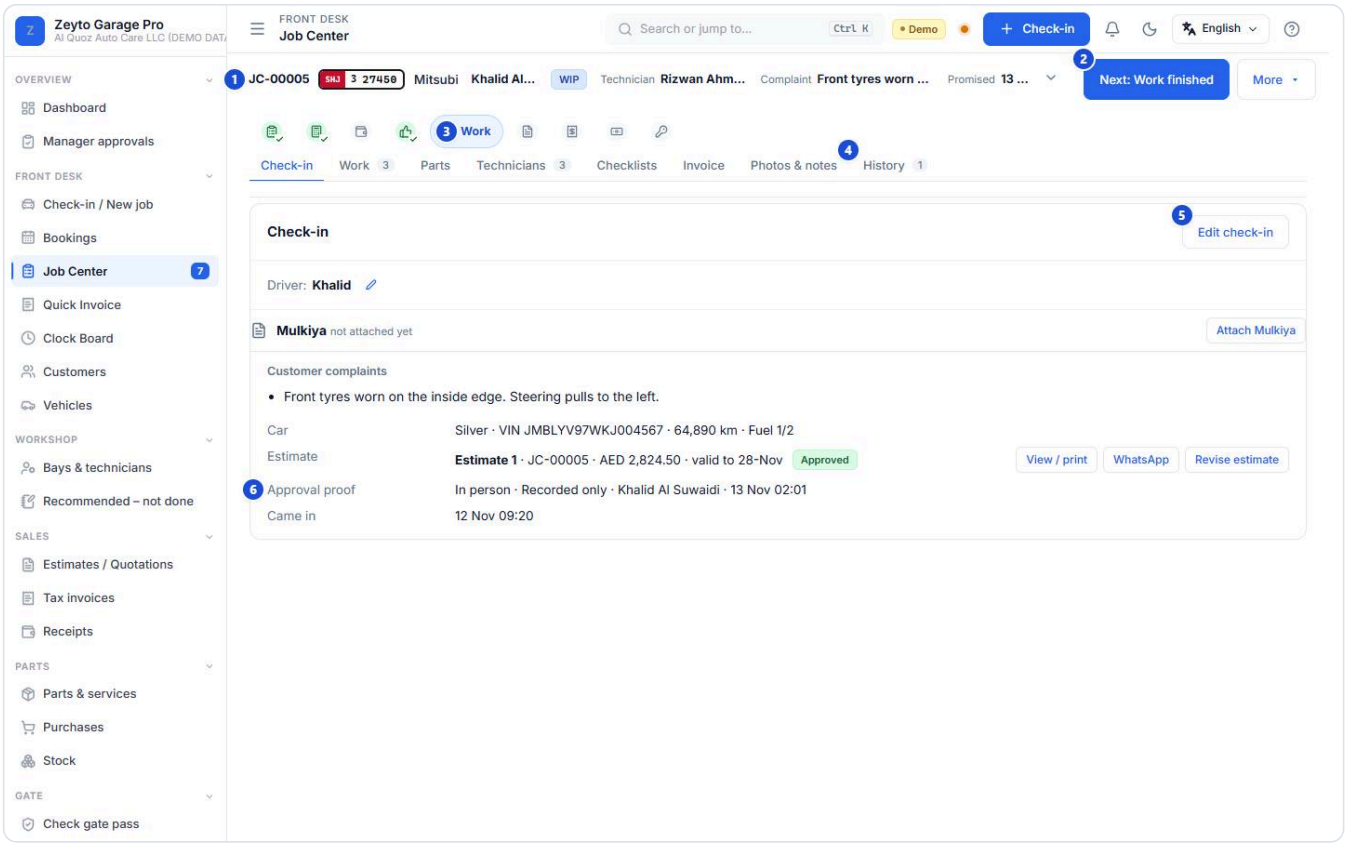
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3. The job card and its states

The job card opens as a **Job Center** page (`Front desk ▸ Job Center`). With no job open, the page is the workshop board: one column per stage, with a Board and List switch. With a job open, you see one pinned header line (job number, plate and car, customer, status word, technician, promised time), the one **Next step** button, a stepper and a tab strip.



The job card at a glance. The job opens on the tab of its current stage, not always on the first tab. The tab ids are stable, so a bookmark such as `?tab=money` still opens the Invoice tab.

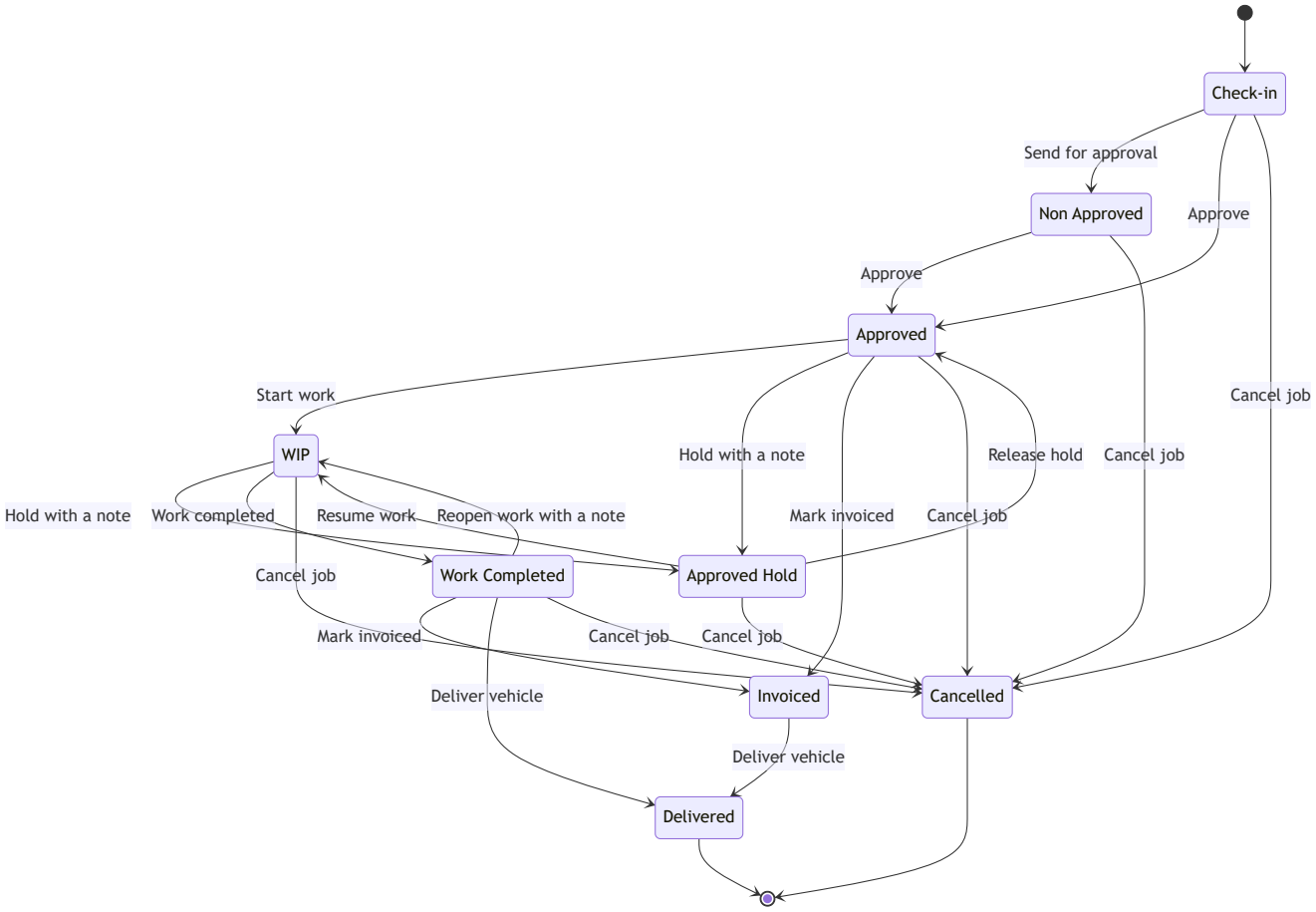


A job card at the Check-in tab. This is JC-00005, a Mitsubishi Pajero in WIP. The Check-in tab also offers an Attach Mulkiya button for the registration card, marked "not attached yet" on this job.

1. The pinned header: job number, plate, car, customer, state (WIP), technician, complaint and promised time.
2. The one primary button. Here it reads "Next: Work finished". Its label follows the state, and More holds the other actions.
3. The stage strip: the icons run from check-in to hand over and the current stage (Work) is highlighted.
4. The tab strip: Check-in, Work, Parts, Technicians, Checklists, Invoice, Photos and notes, History, each with a count where it has rows.
5. Edit check-in changes the customer, car or complaint.
6. The estimate with its status (Approved) and its approval proof, here "In person", "Recorded only", with the name of the person who approved.

The nine states

The workflow is called GARAGE_JOB and has nine states and twenty transitions. The product seeds it for every company that has none. The owner's status words are what the screens show. The seeded state named "Intake" is always shown as **Check-in**.

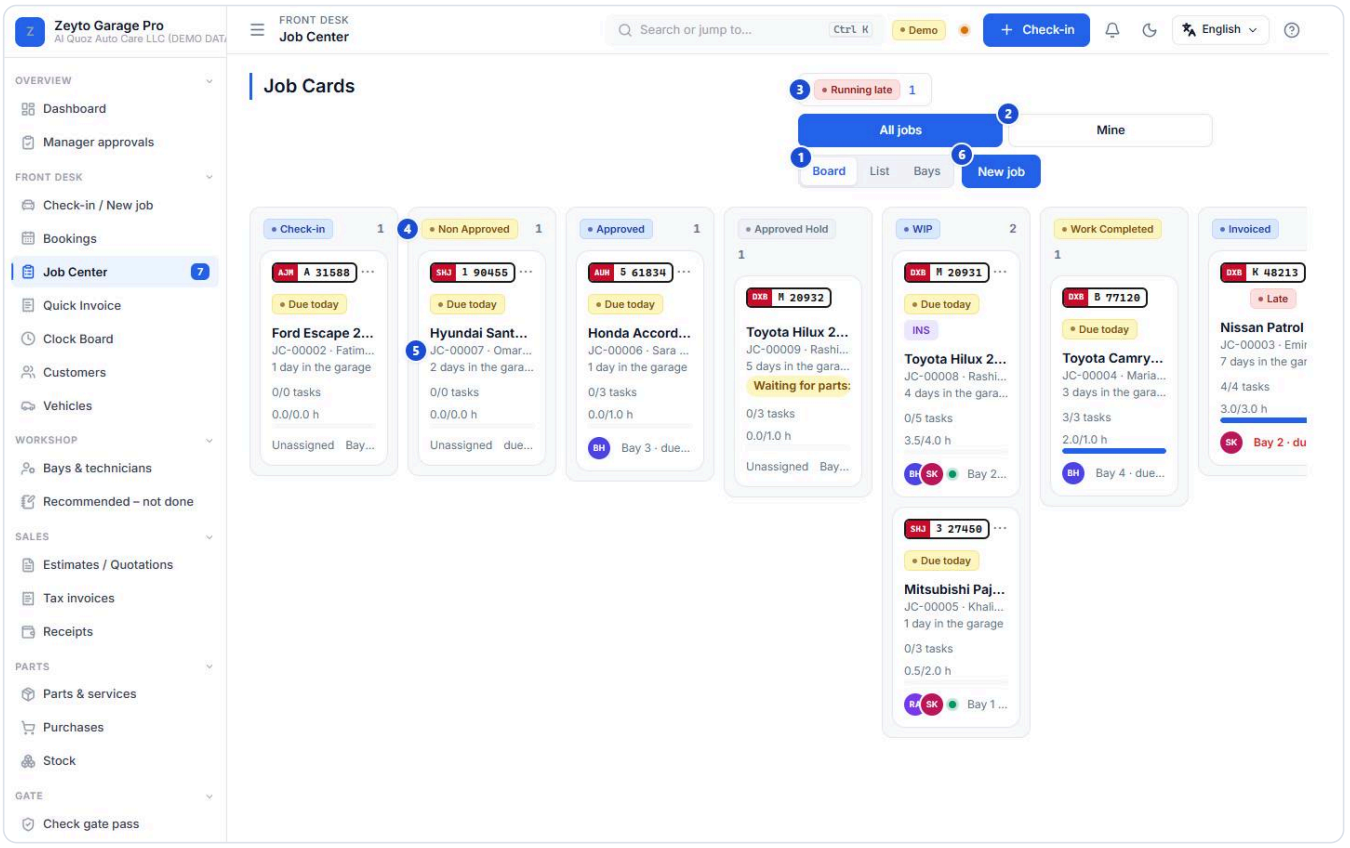


The seeded GARAGE_JOB workflow. Hold, Reopen work and Cancel job need a note. In daily work you rarely press a state button. Approving lines, posting the invoice and making the gate pass move the job for you, and the history records that the system moved it.

STATUS WORD	INTERNAL CODE	PILL COLOUR	MEANING
Check-in	INTAKE	draft tone	The car is in, work is not yet agreed.
Non Approved	AWAITING_APPROVAL	warn	An estimate was sent and the customer has not answered.
Approved	APPROVED	info	The customer approved at least one line.
Approved Hold	ON_HOLD	danger	Stopped, for a stated reason.
WIP	IN_PROGRESS	info	Work has started.
Work Completed	WORK_DONE	success	All the work is done, invoice next.
Invoiced	INVOICED	success	A live tax invoice bills the job.
Delivered	DELIVERED	success	The car has been handed over. Closed.
Cancelled	CANCELLED	danger	The job was cancelled.

In the code, Approved Hold and Cancelled are shown as pills beside seven counting tiles (Check-in, Non Approved, Approved, WIP, Work Completed, Invoiced and Delivered) and not as tiles of their own. On the Job Center board in the figure

below, however, Approved Hold has a column of its own, and the dashboard lists it in its stage chart too. The colours listed here are the seeded workflow tones. The screens use one fixed colour map (the job board, the chips and the dashboard share it), so the same word is always the same colour.



The Job Center board. Each column is one state. Check-in, Non Approved, Approved, Approved Hold and WIP are visible here; scrolling right shows Work Completed, Invoiced and Delivered. The Delivered column offers 1 day, 7 days and 30 days filters and a See all delivered button.

1. Board, List and Bays are three views of the same jobs.
2. All jobs, or Mine for the jobs assigned to you.
3. The Running late counter.
4. One column for each job state, with the number of jobs in it.
5. A job card: plate, due time, tasks, hours and bay. A badge such as INS marks an insurance job and a note such as "Waiting for parts" shows the hold reason.
6. New job opens the check-in form.

The rulebook: which action a state allows

One pure table, `JobActionRules`, answers every "may I?" question. The button the screen dims and the refusal the server sends read the same table, so they cannot disagree. A refused action answers `409 JOB_ACTION_NOT_ALLOWED` with one plain sentence. These are the rules a user feels every day.

ACTION	ALLOWED WHEN	REFUSED WITH
Edit header, add or change lines	Any state before Work Completed. At Work Completed and Invoiced only if the job lock is off or a manager reopened it.	"This job is locked. A manager can reopen it with a reason."

Estimate and approval	While lines can change and no live invoice exists.	"Invoiced. Cancel the invoice first."
Additional work (AWV)	From Check-in on, while lines can change. The voucher carries the customer's consent note.	The lock sentences above.
Advance	Only until a live invoice exists.	"Take a receipt against the invoice instead."
Start work	Approved or WIP with approved work.	"The customer hasn't approved any work yet."
Work finished	With approved work, or by saying "Nothing to bill" out loud (recorded in the history).	"No approved work to bill. Get the customer's approval first, or close the job as Nothing to bill (no invoice)."
Assign, clock in, mark a line done, issue parts	Approved or WIP. Not on hold.	"The job is on hold. Resume it first."
Proforma and Invoice	From approval on, until every line is invoiced. Invoicing work still in hand finishes it: the screen asks "Finish the work and invoice?".	"Every line of this job is already invoiced."
Receipt	A live invoice with something owed.	"There is no invoice yet. Take an advance instead." or "Nothing is owed on this job."
Cancel job	Before the work is finished and before any live invoice.	"This job is invoiced. Open the invoice and press Correct this invoice."
Credit note / refund	Any state once an invoice stands, even after delivery.	"There is no invoice on this job to credit yet."
Release the car	Any submitted job that has not been released.	"The car has already been released."

THE STATE FOLLOWS THE DOCUMENTS

Accounting and workflow agree one to one. A job still at Check-in or Non Approved that has approved work is judged as Approved, so an approval recorded without moving the workflow never traps the job. A job becomes Invoiced by itself, inside the same database transaction that posts the invoice. Its history says "Invoiced on INV-00001" with no user as actor, while the job card's last updater stays the person who posted the invoice.

Hold, lock and warranty jobs

- **Hold.** The hold note starts with one of the standard reasons: "Waiting for parts", "Waiting for customer approval", "Waiting for insurer", or free text under Other, optionally followed by more words after a colon. Reports can group by reason.
- **Job lock.** Under `Settings ▸ Workshop ▸ Job lock` the choices are "Lock after Work Completed" (recommended) and "Lock only once invoiced". An invoiced or delivered job is always locked. A manager with the release-override right can reopen it with a reason. The reopen is a history row that stays in the current state, so the audit trail is the job's own timeline.
- **Warranty job.** When the garage pays (a comeback), the job is zero-bill by rule: invoice, proforma and advance are refused, the parts it used are issued as materials and booked to warranty expense, and the finish step reads "Close

warranty job". The register shows who bears the cost: the garage, the supplier of the part, or the insurer.

> Source: `src/Zeyto.Edge/Data/GarageSeeder.cs`, `src/Zeyto.Edge/Domain/Garage/JobActionRules.cs`, `src/Zeyto.Edge/Domain/Garage/GarageJobEditLock.cs`, `src/Zeyto.Edge/Domain/Garage/GarageHoldReasons.cs`, `src/Zeyto.Edge/Domain/Garage/JobComeback.cs`, `src/Zeyto.Web/src/screens/garage/statusWords.ts`, `src/Zeyto.Web/src/screens/garage/hub/cardTabs.ts`, `src/Zeyto.Web/src/screens/garage/hub/JobCenter.tsx`, `src/Zeyto.Web/src/screens/garage/workshop/WorkshopSettingsCard.tsx`

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4. Estimates, customer approval and proof

Garage Pro separates three things that many shops mix up: the **work lines** you type, the **estimate** you freeze and show the customer, and the **approval** the customer gives. Each has its own record, and none of them posts anything to the books.

Work lines, estimate revisions and extra quotes

- **Work lines** sit on the job card. A line is a labour item (an hour-based service) or a part. Each line has a stable key that survives every amendment of the job card, so a decision made about a line follows the line.
- **Estimate** means the lines are frozen in a numbered revision. Revision 0 is called S0 and is the "Original estimate". Revisions 1 and up are S1, S2 and so on, shown as "Extra quote 1", "Extra quote 2". A revision copies every figure from the server at the moment of issue (taxable, VAT, total including VAT, the running total) and is append-only, so a printed estimate can always be reproduced.
- **Additional Work voucher** (document type AWV, numbered `AWV-00001`) is extra work found during the job. It carries a required consent note saying who approved the extra work and how, so the voucher is itself the customer's approval of that work. It is allowed from Check-in on, with no limit on how many you add.

The owner's order on the Work tab

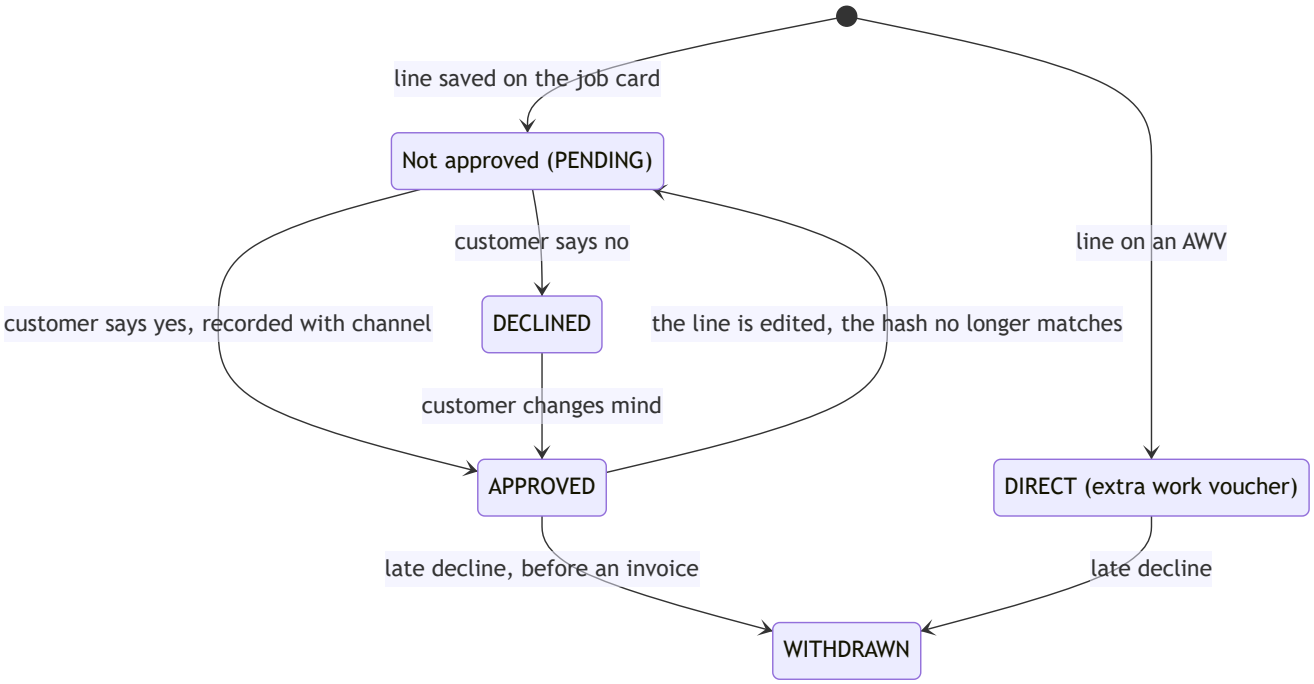
The Work tab guides you in one order, and the header button follows it.

1. **Add work.** Open the **Work** tab and use the Add work bar. Typing a service or part code adds a line. For a service the rate is per hour, so a line at its standard time prices itself.
2. **Save work lines.** The header button reads `Save work lines` while the form holds unsaved changes.
3. **Save estimate.** With saved lines and no estimate yet, the button reads `Save estimate`. It freezes the lines as S0 and opens the share options. The estimate chip then reads, for example, "Estimate 1 · JC-00012 · AED 1,260 · valid to 27-Oct".
4. **Get the answer.** Press `Customer approved` when the customer said yes to you, or `Send link` so the customer answers on a phone.
5. **Start work.** Once a line is approved the button becomes `Start work`.

If you change a line after saving the estimate, the status reads "Out of date" and the approval buttons dim with the sentence "The estimate is out of date. Save the estimate again first." The estimate status words are: Not saved yet, Out of date, Awaiting answer, Expired, Approved, Declined.

How a line is approved

The approval state of every line is derived from two append-only record sets: the frozen estimate lines and the customer's decisions. A decision records who answered, how (in person, phone, WhatsApp, email, signature, direct, migrated), the line's commercial-terms hash at that moment and the time. The latest decision wins, but only while the line still has the same hash. Change the quantity, rate, discount, description or tax code of an approved line and the approval no longer counts: the line goes back to waiting.



The line approval states. Only APPROVED and DIRECT lines are billable. WITHDRAWN is sticky: whatever the hash says, a withdrawn line stays withdrawn. The ordering key is the server clock, never the time the advisor typed. When a job is invoiced, a line that nobody approved is simply not on the invoice.

APPROVE ONCE

One press of `Customer approved` approves every line of the job that is not approved yet: lines added later, a line changed after its approval (the list shows "Changed from A to B"), and lines never sent (the server issues the estimate silently in the same call). A declined line is never approved by it. The same sheet opens early if you start the work, mark it finished or make the invoice while lines are still not approved, so the refusal never arrives late. Per-line answers (decline, approve one line, ask again) are behind "More".

Proof that the customer really said yes

Under `Settings ▸ Sharing ▸ Customer approval links` and the proof card, the shop chooses how sure it wants to be. A preset applies to each way of answering.

PRESET	WHAT THE ADVISOR MUST COLLECT
Just record it	Nothing extra: a name, how, and a note.
Customer signs on the tablet	A signature, or a photo of the signed paper.
Customer reads back a code	A 4-digit one-time code the customer reads back, or a signature, or a photo.
Strict (signature or code, plus photo for WhatsApp)	Always. For WhatsApp or email the code and a photo or screenshot of the reply. For in person or phone, a signature or the code.

The recommended default is: In person = signature, Phone = code, WhatsApp = code, with the threshold line "Work of AED 500 or more always needs proof". Below the amount the answer is just recorded and the proof is only offered. Type 0 to ask every time. A code is stored as a salted hash bound to exactly the lines it was issued for, is valid for 30 minutes and allows 5 wrong tries. A customer's own signature on an approval link is the strongest proof and always passes.

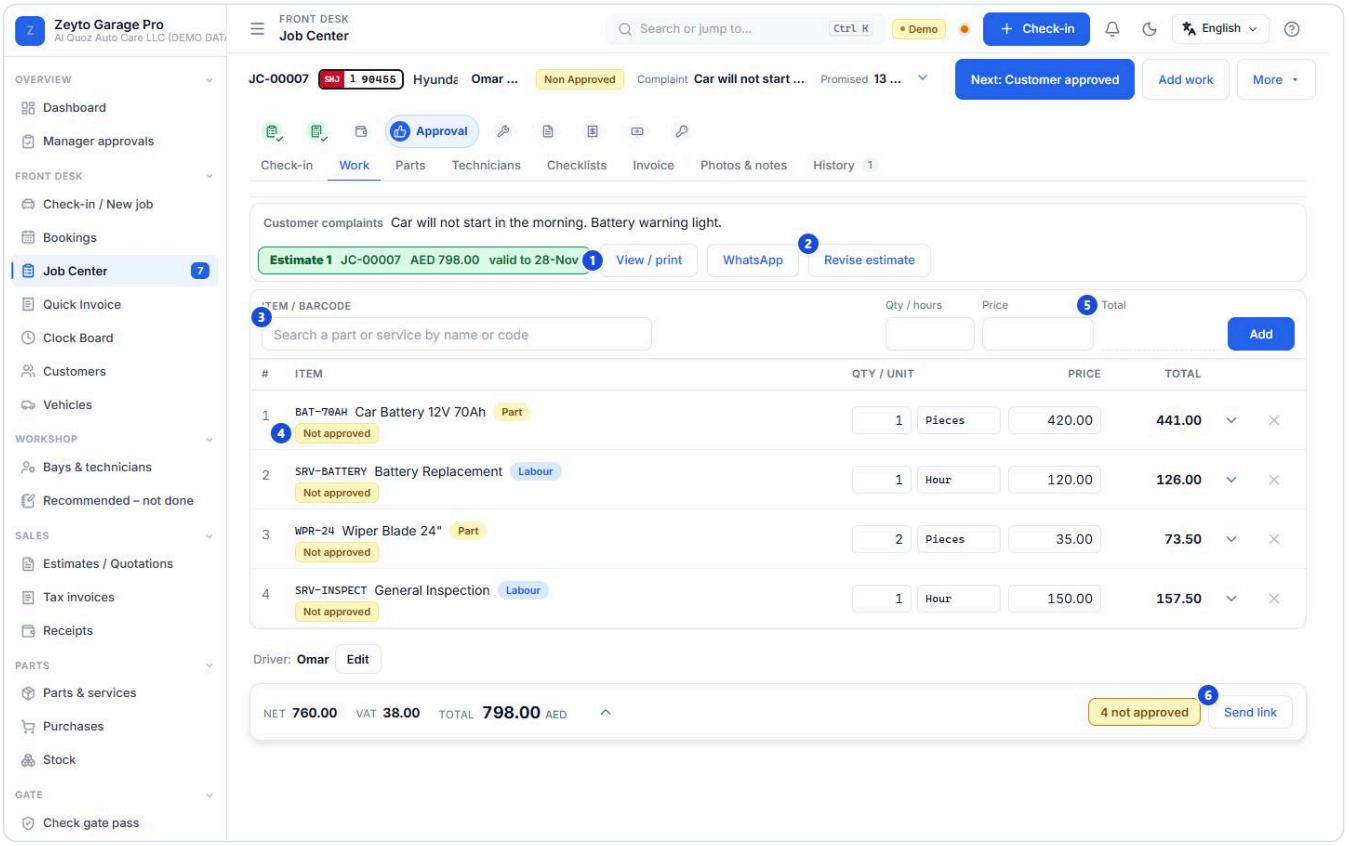
REAL EXAMPLE

When proof is required, with the JC-1023 estimate figures

The shop uses the recommended policy: in person = signature, threshold 500.00. The job card from the product's golden test (section 7) has two estimate lines.

LINE	TAXABLE	VAT 5%	TOTAL INCL. VAT
LAB-HR Labour per hour, 2 × 150.00	300.00	15.00	315.00
OIL-5W30 Engine oil 1 L, 4 × 30.00	120.00	6.00	126.00
Estimate S0	**420.00**	**21.00**	**441.00**

The proof rule compares the sum of the line totals being approved (441.00) with the threshold (500.00). 441.00 is below 500.00, so approving S0 in person needs no signature: the answer is recorded with the name and the channel. Later the advisor presses `Customer approved` for S0 and the extra brake line together (441.00 + 399.00 = 840.00). 840.00 is at or above 500.00, so the sheet asks for the signature.



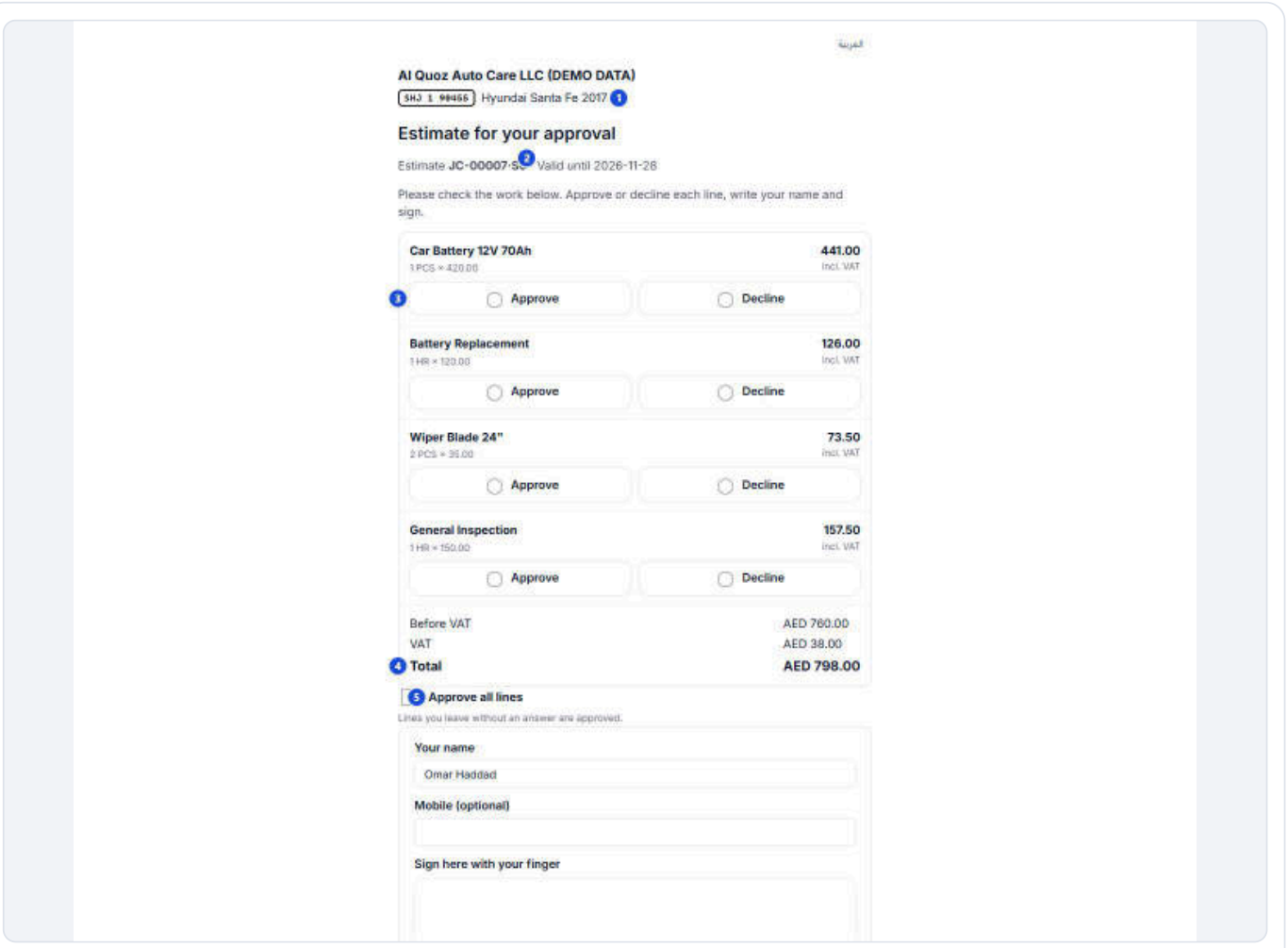
The estimate on the Work tab. JC-00007 is a Non Approved battery job: four lines, each still marked Not approved, net 760.00, VAT 38.00, total 798.00 AED. The header button reads "Next: Customer approved".

1. The estimate chip: Estimate 1, the job number, the amount and "valid to 28-Nov".
2. View / print, WhatsApp and Revise estimate act on the estimate.
3. Search a part or service by name or code, then give quantity and price and press Add.
4. The approval state of each line. All four read Not approved here.
5. The line total with VAT (441.00 for the battery).

6 The totals bar, the badge "4 not approved" and the Send link button for the customer.

Sending the estimate to the customer's phone

1. **Open the link sheet.** On the Work tab press `Send link` (or `Send estimate for approval` from the estimate chip).
2. **Choose how to send it.** The sheet offers WhatsApp, email, `Copy link` and a QR code. It says "Works until" a date and "It can be answered once".
3. **The customer opens it.** On a phone, with no login, the customer approves or declines each item, writes a name and signs with a finger.
4. **The answer arrives.** The job card shows "Approved by link, signature", the line approvals and two evidence attachments: the signature PNG and an evidence file recording the snapshot the customer saw.



The page the customer opens. It needs no sign-in. The text says "Please check the work below. Approve or decline each line, write your name and sign." Below the totals the customer types a name, may add a mobile number and signs "with your finger". The date on this public page is written 2026-11-28, not DD/MM/YYYY.

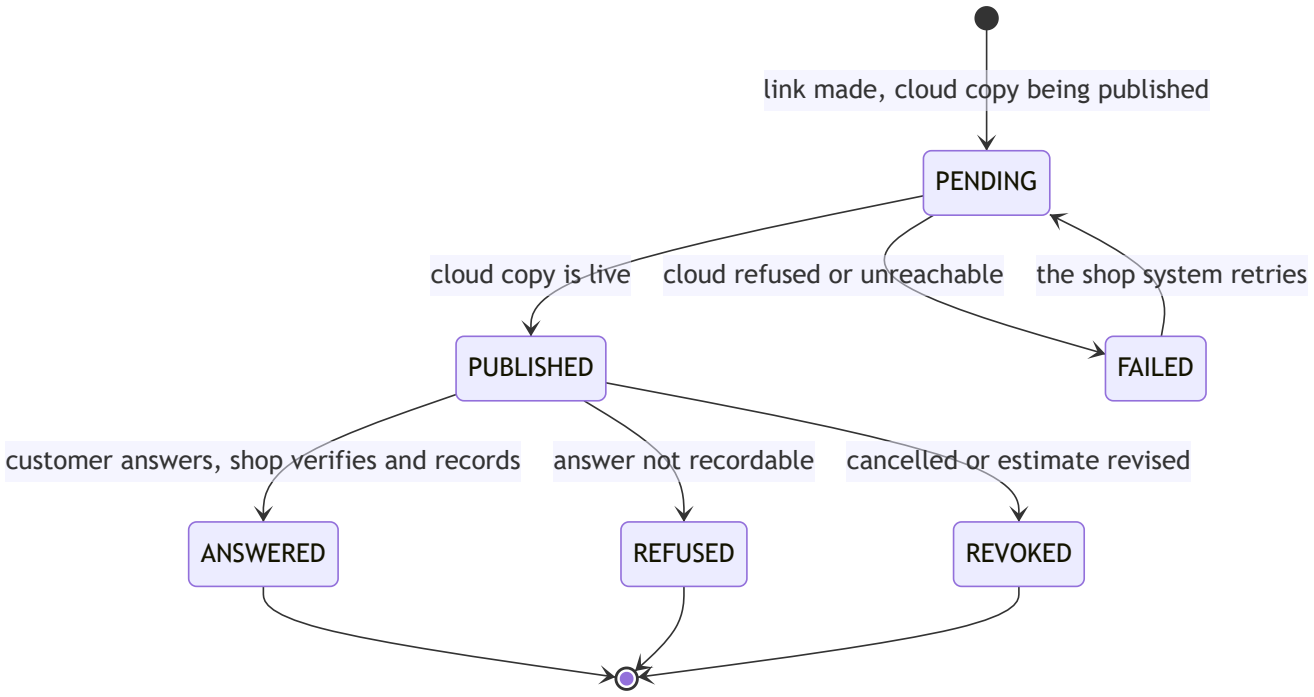
1 The workshop name, the plate and the car.

2 The estimate title, the estimate number (JC-00007 and the revision) and "Valid until".

3. An Approve and a Decline choice for every line, with the price including VAT.
4. The totals: before VAT 760.00, VAT 38.00, total 798.00 AED.
5. The Approve all lines tick. The small text under it says "Lines you leave without an answer are approved."

The cloud approval page

A link normally works on the shop's own network (Wi-Fi or the QR at the counter). The **cloud approval page** makes the same link work from anywhere, including mobile data, even when the shop PC is switched off. It is controlled by `Settings ▸ Sharing & approval links` with the switch "Approval links that work from anywhere" and a `Test the connection` button. The customer's page lives on the Zeyto cloud address configured for the shop, and it shows the shop name and logo, the estimate label, the car make, model and year, a masked plate, the lines with prices and VAT, the totals and the consent sentence. It must not show a customer name, phone, job number, VIN, cost or notes.



Cloud state of one approval link. The link itself also has a status (Active, Used, Revoked, Expired). The sheet says it in words: "Cloud link ready", "Publishing...", "Waiting for internet, will send when online", "Using shop-network link only (cloud off)", "Answered", "Answer not recorded", "Link expired", "Replaced by a newer estimate", "Cancelled".

- An answer is recorded only if it can be verified: the message authentication code, the line hashes, the expiry and the state of the job must all be valid. If not, the answer is not recorded, the advisor sees the reason on the job card (for example "answered after the link had expired") and the cloud is told to delete the customer's personal data.
- The shop looks for answers every 30 seconds while a cloud link is open, and every 5 minutes otherwise. An answer waits at the cloud for up to 60 days if the shop PC is off.
- Issuing a revised estimate revokes the old cloud link. A link for an older revision can never be answered.
- A shop that refuses any cloud can set its own public address with a Cloudflare Tunnel limited to the approval path. The shop's own address wins over the cloud address.

NOT VERIFIED LIVE

The cloud approval feature ships off by default on every install. It needs the garage licence, an online activation, the cloud service enabled by the Zeyto operator, and a saved address plus the switch on the shop's settings. The repository's go-live checklist lists the live checks (phone on mobile data, second answer refused, expiry, offline shop) as a pass to run with a pilot garage. This chapter did not confirm that they have been run.

> Source: `src/Zeyto.Edge/Domain/Garage/ServiceLineStateResolver.cs`, `src/Zeyto.Edge/Data/migrations/9001-garage-foundation.sql`, `src/Zeyto.Edge/Api/Garage/GarageApprovalProof.cs`, `src/Zeyto.Web/src/screens/garage/hub/estimateStep.ts`, `src/Zeyto.Web/src/screens/garage/estimates/CustomerApproved.tsx`, `src/Zeyto.Web/src/screens/garage/estimates/approvalProof.ts`, `src/Zeyto.Web/src/screens/garage/estimates/ApprovalLinkSheet.tsx`, `src/Zeyto.Web/src/screens/garage/estimates/approvalLinks.ts`, `docs/garage-cloud-approval-go-live.md`, `docs/garage-approval-tunnel-howto.md`

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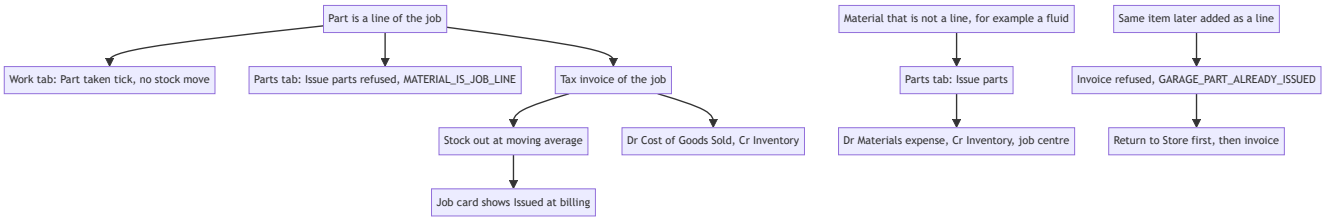
5. Parts, stock and purchases: issued exactly once

The most common garage accounting error is taking the same part out of stock twice: once when the mechanic fits it and once when the invoice is made. Garage Pro is built so that a part of a job leaves the store in exactly one place.

THE INVOICE IS THE ISSUE

A stock part that is a line of the job reaches the books in exactly one place: the job's sales invoice. The posting engine moves every stock line of the invoice at the moving-average cost and posts Dr Cost of Goods Sold, Cr Inventory, with each row tagged with the job's centre. The "Part taken" tick on the Work tab is only a work-log mark and moves nothing.

STEP	MOVES STOCK?	POSTS COST?
"Part taken" tick on the Work tab	No	No
Parts tab ▸ Issue parts (stock adjustment out) for a material that is not a job line	Yes	Yes, to the Materials account in Settings ▸ Workshop
Proforma invoice	No	No
The job's sales invoice	**Yes**	**Yes, Dr Cost of Goods Sold, Cr Inventory**
Credit note that restocks	Yes, back in at the cost it left	Yes, reverses the cost
Credit note that scraps	No	No
Cancel or amend the invoice	Reversal rows, then new rows	Same

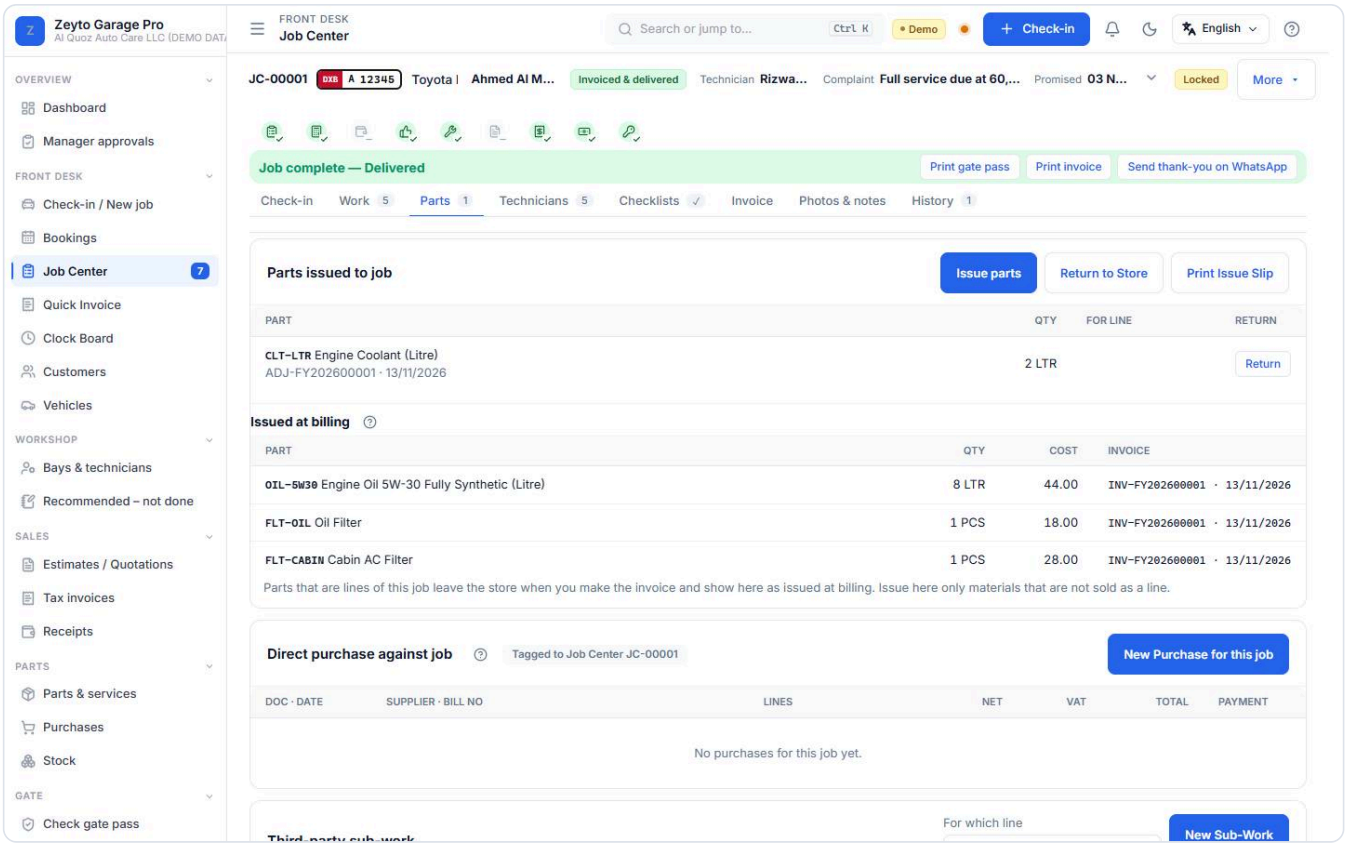


One movement per physical part. The job card does not issue a second time. It reads the movement the invoice made and shows it. In the Work tab the Part column says "Issued at billing" with the invoice number, or "3 issued at billing" for a part-billed line. The Parts tab has an "Issued at billing" list with item, quantity, cost, invoice and date.

What you do on the Parts tab

1. **Open the tab.** On the job card open **Parts**. The card is called "Parts issued to job".
2. **Issue a material.** Press `Issue parts`. Pick the Item (typed code or name), the Qty and, if the part belongs to a line, the line under "For which line". Serial numbers (one per unit) or Batch No and Expiry date are asked only for items that track them.
3. **Return what you did not use.** Press `Return to Store`. A return goes back at today's average cost.
4. **Print the slip.** `Print Issue Slip` prints the last issue.

The help text on the screen says it plainly: "Parts that are lines of this job leave the store when you make the invoice. Issue here only materials that are not sold as a line." On a warranty job it says the opposite: issue here every part you used, because the cost is booked as warranty expense.



The Parts tab of JC-00001. The first card, Parts issued to job, holds only a material that is not a line of the job (2 litres of coolant, issued through an adjustment). The second card, Issued at billing, lists the oil and filters that left the store when the invoice INV-FY202600001 was made, with their cost. Below sit the cards for a direct purchase and for third-party sub-work.

Stock never blocks a sale, unless you set it to

One company setting decides what happens when a sale, a job invoice or a part issue takes more than is in stock. It lives under `Settings ▸ Costing & stock rules` and is called **When a sale is more than the stock**.

CHOICE	WHAT THE SCREEN SAYS	WHAT HAPPENS
Allow it (default of a garage install)	A sale or a part issue is never stopped for quantity. The stock may go below zero; the dashboard shows it.	Always posts, no warning.
Allow it, but warn	The sale or issue goes through and a line says which part is more than the stock.	Posts, and the answer carries a line such as "Engine oil 1 L: 4 sold are more than the stock (−4 on hand)".
Block it	A sale or a part issue that takes more than is there, or parts reserved for approved jobs, is refused.	Refuses with STOCK_RESERVED or NEGATIVE_STOCK.

A second tick, **Count parts reserved for approved jobs**, decides whether the parts that approved but not yet invoiced jobs hold are subtracted from the Available figure. It never blocks anything by itself. It feeds the Block refusal, the warning and the "available" figures. The stored setting is `garage.stock` with `mode` and `countReserved`.

REAL EXAMPLE

A part sold with no stock is still costed

With the policy on Allow, the shop sells 3 spark plugs it has not received yet, at 60.00 each, for cash. The item has a standard cost of 28.00 and has never been purchased. The product's test FA_C4_01 asserts this posting.

ACCOUNT	DR	CR
Cash in Hand (1000)	189.00	
Sales (4000)		180.00
VAT Output (2200)		9.00
Cost of Goods Sold (5000)	84.00	
Inventory (1300)		84.00
Total	**273.00**	**273.00**

The stock on hand becomes −3. The cost 84.00 is 3 × 28.00, the item's standard cost. Before this rule was added, the cost posted as 0.00 and the margin was overstated. The order of fallbacks is: the last receipt cost, then the standard cost, then 0 with the stock row flagged "cost missing". When the purchase arrives later, the moving average absorbs the difference. The report "Parts sold with unknown cost" lists the sales that posted at cost 0.

Buying a part for one job, and sub-work

- **Buy for this job.** A purchase invoice made from the job carries the job's centre. The stock goes into the main store, never a special warehouse, and the invoice later issues it. In the JC-1023 story, a brake pad set bought for the job at 210.00 plus 10.50 VAT is received into the main store and later leaves it on the job's invoice at the same 210.00.
- **Sub-work.** Work done by an outside shop is an item in the "Sub-work" group (`GRP-GAR-SUBLET`), or an expense line carrying the job's centre. It adds a cost to the job without moving stock.
- **Late supplier bill.** A supplier's bill may arrive after the invoice. The system allows it with a warning "Cost added after invoicing."
- **Shop supplies.** Waste cloth, gloves and cleaner (item `Shop supplies`) are recorded on the job as consumables. They need no customer approval and are open while the job can change. The report "Consumables used" shows them per job, technician, item or month.

> Source: `docs/garage-job-parts-issue.md` , `docs/garage-negative-stock-costing.md` , `src/Zeyto.Edge/Domain/Garage/JobPartsIssue.cs` , `src/Zeyto.Edge/Domain/Garage/GarageStockGuard.cs` , `src/Zeyto.Edge/Domain/Garage/GarageLineGuard.cs` , `src/Zeyto.Web/src/screens/settings/CostingSettings.tsx` , `src/Zeyto.Web/src/screens/garage/workshop/MaterialsCard.tsx` , `tests/Zeyto.Tests/GarageFaAccountingTests.cs` , `tests/Zeyto.Tests/GarageStoryKit.cs`

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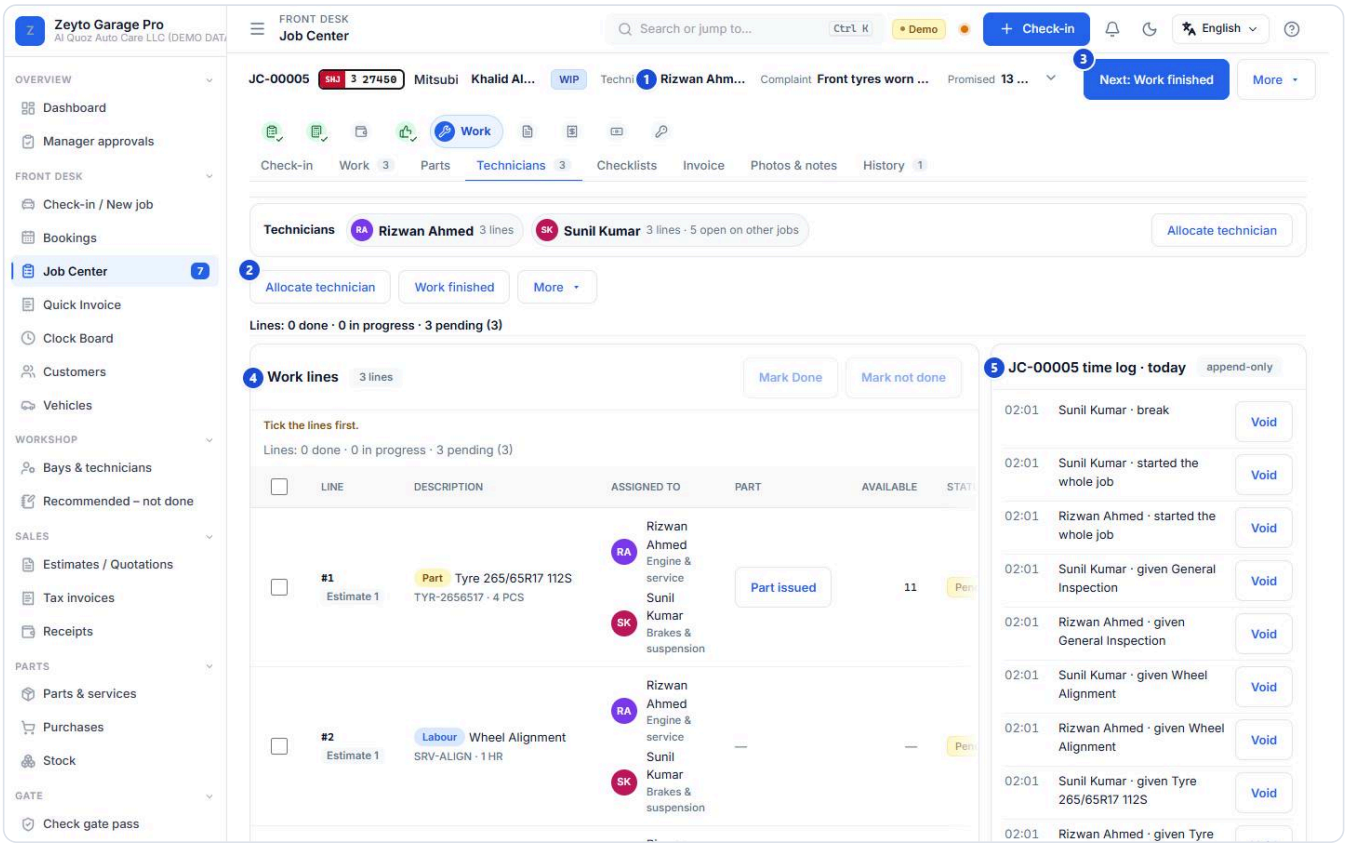
6. Labour, technicians, checklists and quality control

Technicians and the clock

A technician is an employee flagged as working on jobs. The record (`garage_technician`) holds an optional skill word and an optional cost per clocked hour. Everything a technician does is one row in an append-only log (`garage_work_event`): assign, unassign, clock in, break, resume, clock out, line done, line reopen, part taken, part returned, sub-work sent, sub-work back, and void. A mistake is corrected by a void, never by editing a row.

1. **Assign.** On the job card open **Technicians** and assign a technician to a line, with optional planned hours.
2. **Clock in.** The technician opens `Front desk ▸ Clock Board` (or My work) and presses `Clock In`, choosing the job and line. The card shows "Clocked in", "Break" or "Idle" and the running time.
3. **Break and resume.** `Break` and `Resume` pause and restart the time. `Clock Out` ends the session.
4. **Mark the line done.** The line is marked done on the job card. In Full workshop mode, Work finished waits until every line is done.

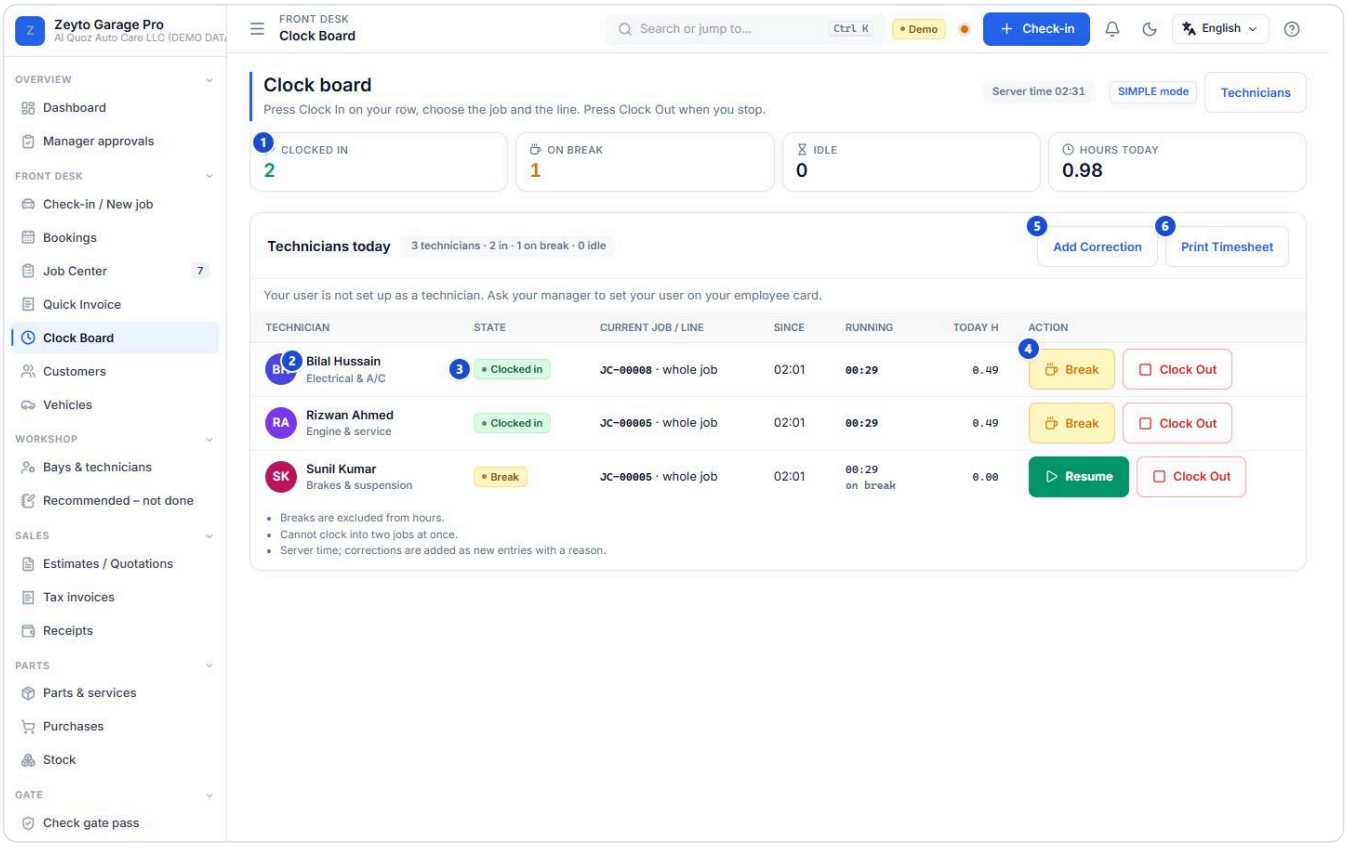
- A technician clocks himself. A manager with the workshop-manage right can act for anyone and can add a correction.
- Each tap carries an idempotency key, so a quick double tap cannot clock twice.
- The running time ticks from the server's own clock, not from the tablet's.
- **Technicians see no money at all**: no price, no cost, no payment status and no override reason. A blocked release reads "This car can't leave yet. Ask the cashier."
- Under `Settings ▸ Workshop` (inside Advanced) the **Workshop mode** is Simple ("Lines and Mark done. Assign, clock and stock issue are under More") or Full ("Assign technicians, clock in and out, stock issue. Completion Of Job waits until every line is done").



The Technicians tab of JC-00005. Two technicians work on three lines. The time log on the right is labelled append-only, and each entry has a Void button instead of an edit.

1. The technicians on this job, with the number of lines each has.
2. Allocate technician assigns a person to lines.
3. Work finished (and the header button of the same name) moves the job on.

4. Work lines: the line, who it is assigned to, the part and whether it is issued, and the line status. Tick lines first, then Mark Done or Mark not done.
5. The time log of the job for today. A wrong entry is voided, never deleted.



The Clock Board. The page says "Press Clock In on your row, choose the job and line. Press Clock Out when you stop." The notes under the table read "Breaks are excluded from hours", "Cannot clock into two jobs at once" and "Server time; corrections are added as new entries with a reason". The badge SIMPLE mode shows the workshop mode.

1. Counters: clocked in, on break, idle and hours today.
2. One row for each technician with the job and line, the start time, the running time and the hours today.
3. The state: Clocked in or Break.
4. Break and Clock Out for a working technician, Resume and Clock Out for one on a break.
5. Add Correction makes a new entry with a reason.
6. Print Timesheet.

What labour costs the job

Labour cost is a reporting estimate. It is never posted. The rule, in order:

1. Clocked time: each technician's hours multiplied by his own cost per hour, else by the **Standard labour cost** per hour in Settings ▸ Workshop, rounded once per technician.
2. A labour line with no clocked time is estimated from its planned hours, else from its quantity when the unit is hours, else from the item's standard time multiplied by the quantity, shared equally between the assignees.
3. When nothing can be costed, the job cost view says so (basis Before labour) and the margin is shown before labour.

ILLUSTRATIVE FIGURES

Labour cost of an oil change from the demo items

The demo item "Oil Change Service" (SRV-OIL) has a standard time of 0.5 hours and a rate of 120.00 per hour, so one line prices itself at 0.5 × 120.00 = 60.00. Assume the shop set a standard labour cost of 45.00 per hour and the technician Imran clocked 0.5 hours.

ITEM	FIGURE
Sold hours	0.50 h
Labour revenue (before VAT)	60.00
Clocked hours	0.50 h
Labour cost (0.50 × 45.00)	22.50
Labour margin	37.50

The standard labour cost of 45.00 and the technician are assumptions for this illustration. The rule and the rate 120.00 are the product's.

Checklists and quality control

The **Checklists** tab of the job card holds three kinds of checklist: PRE_WORK (inspection at the door), QC (final inspection) and DELIVERY (handover). The Checklist Master under `Settings ▸ Workshop ▸ Checklist Master` keeps the templates. Five are seeded in English and Arabic:

CODE	TEMPLATE	TYPE
CHK-T01	Pre-work inspection – Passenger car	PRE_WORK
CHK-T02	Body shop intake	PRE_WORK
CHK-T03	Pre-work inspection – SUV / 4×4	PRE_WORK
CHK-T04	QC final inspection	QC
CHK-T05	Delivery handover	DELIVERY

Each item answers OK / Attention / N/A, Yes / No, a number with a unit (odometer, road-test distance), or text, and may carry photos. The QC template covers "Work done", "Road test" and "Handover readiness". Saving a template creates an immutable version, so a checklist already filled keeps the items it was filled with.

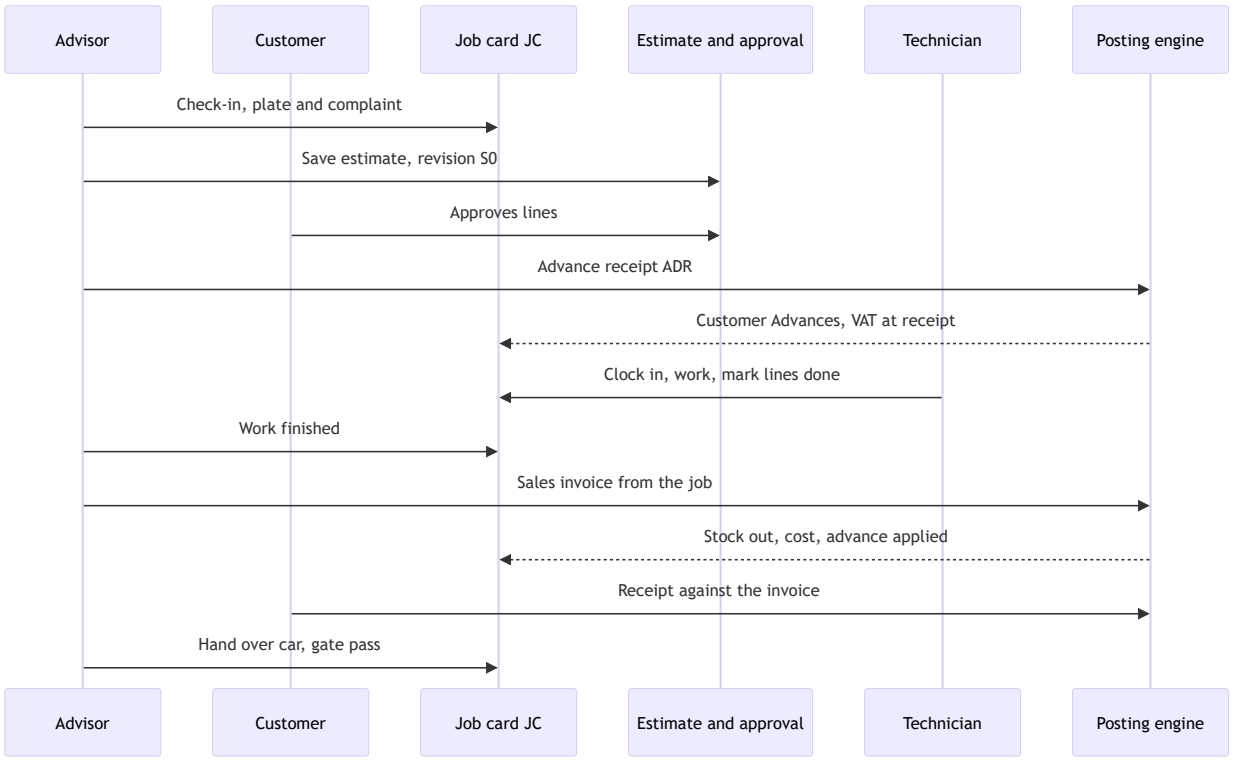
CHECKLISTS NEVER BLOCK ANYTHING

No column in the checklist tables means required or mandatory, and no posting, workflow, billing or release code reads them. A garage can skip a checklist and the job still invoices and releases.

> Source: `src/Zeyto.Edge/Data/migrations/9008-garage-workshop.sql`, `src/Zeyto.Edge/Data/migrations/9007-garage-checklists.sql`, `src/Zeyto.Edge/Data/GarageChecklistSeeder.cs`, `src/Zeyto.Edge/Domain/Garage/JobLabourCost.cs`, `src/Zeyto.Edge/Domain/Garage/GarageClock.cs`, `src/Zeyto.Web/src/screens/garage/workshop/ClockBoard.tsx`, `src/Zeyto.Web/src/screens/garage/workshop/WorkshopSettingsCard.tsx`, `src/Zeyto.Edge/Data/migrations/9010-garage-demo-masters.demo.sql`

7. Advance, invoice, payment and hand over

Everything you have done so far posted nothing. The books are touched by four kinds of document made from the job card: an **advance receipt** (ADR), a **proforma** (PFI, no posting), the job's **sales invoice** (SI) and a **receipt** (RV). The job card itself and the extra work vouchers never post.



From check-in to hand over. Only the three posting steps (advance, invoice, receipt) write to the ledgers. Moving the job to Invoiced is done by the system inside the invoice's own transaction, with the history note "Invoiced on INV-00001".

The Invoice tab

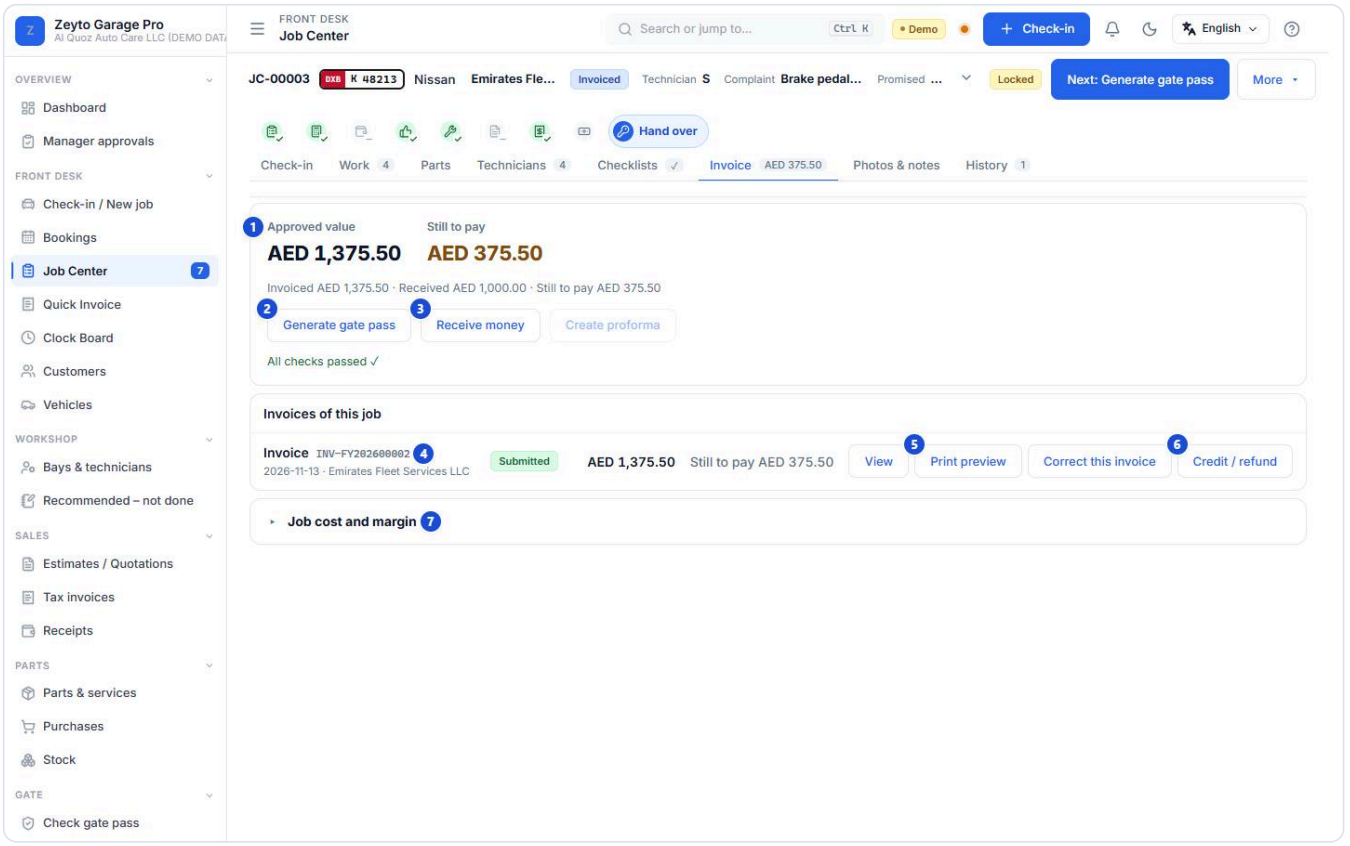
Job card JC-1023 ▸ Invoice [Receive money] [Create proforma]

Approved value	887.25
Still to pay	362.25

Invoiced 887.25 · Received 525.00 · Still to pay 362.25

Advance ADR-00001 (525.00) will be taken off the invoice.

The tab is called **Invoice**. It shows two tiles, **Approved value** and **Still to pay**, one plain sentence that spells out Invoiced, Received and Still to pay, a one-line check for the books ("All checks passed"), and the list "Invoices of this job". Each invoice row has `Print preview`, `Correct this invoice` and `Credit / refund`. A warranty or goodwill job shows no invoice, proforma or advance at all: "Warranty job: nothing is billed."



The Invoice tab of JC-00003. A brake job for a fleet customer, invoiced for 1,375.50 AED with 1,000.00 received and 375.50 still to pay. The header button already reads "Next: Generate gate pass". The invoice carries the number INV-FY202600002 and the status Submitted.

1. Approved value and Still to pay, with a sentence that spells out Invoiced, Received and Still to pay.
2. Generate gate pass starts the hand over.
3. Receive money makes a receipt against the invoice. Create proforma is dimmed on this invoiced job.
4. The invoice of this job: number, date, customer, status and amount.
5. Print preview shows the invoice as the customer gets it. View opens the document.
6. Correct this invoice, or Credit / refund.
7. Job cost and margin, a section that opens to show what the job cost.

Taking an advance

An advance is allowed at any time until a live invoice exists. After that, the same money is a receipt against the invoice, and the screen says so: "Take a receipt against the invoice instead." The rule has no check on the job state before the invoice, so an advance is also allowed at Work Completed, as long as no invoice has been made yet.

1. **Open the Invoice tab.** Before the invoice exists the page offers `Take an advance`.
2. **Enter the amount and the way of payment.** The advance is a receipt linked to the job card, to its car and to the job's centre.
3. **Save it.** It posts Dr Cash (or Bank), Cr Customer Advances, Cr VAT Output. The VAT inside the money (5/105) is declared on the day you receive it.
4. **Print it.** When VAT was charged it prints as **TAX INVOICE (ADVANCE)** with the line "advance against Job Card JC-nnnn" and the plate.

Making the invoice

1. **Finish the work.** In Full workshop mode every line must be done. Pressing the invoice button while work is still in hand asks first and then moves the job to Work Completed.
2. **Press `Create invoice and take payment`.** The server builds a draft sales invoice from every approved line not yet invoiced, plus every Additional Work voucher line. Declined, withdrawn and unapproved lines are skipped and the Invoice tab names them: "It will not be invoiced."
3. **Check the draft.** The draft carries the job's centre, the car, a link back to the job card and the advance applications. `Refresh from job` rebuilds it. `Open full invoice` opens the normal invoice form.
4. **Submit.** Taking payment at this moment is part of the same screen.

You may invoice in parts: lines are consumed as they are billed (the line's consumed quantity), so a part-billed line is not billed twice. Once every line is billed the job reads "Invoiced", even when a declined line was never billed.

REAL EXAMPLE

The JC-1023 story, document by document

The product's golden test GS_GAR_01 runs one full job and asserts every row. The company is a UAE test company with VAT 5%. The car is a Corolla with 84,210 km at check-in.

STEP	DOCUMENT	WHAT IT IS	AMOUNT (AED)
1	PINV-00001	General stock bought, no job: 20 engine oil at 12.00, 5 wipers at 25.00, 10 clip kits at 15.00	515.00 + 25.75 VAT
2	JC-1023	Job card, estimate S0: Labour 2 h at 150.00, Engine oil 4 at 30.00. Opens centre JC-1023	420.00 + 21.00 VAT
3	S0 approved	Both lines approved	441.00
4	ADR-00001	Advance receipt from the job	525.00 (500.00 + 25.00 VAT)
5	JC-1023/A1	Job card amended, revision S1 adds Front brake pads 1 at 380.00 and Wiper 1 at 60.00. Line keys stay the same	399.00 and 63.00
6	S1 answers	Brake pads approved on WhatsApp, wiper declined	
7	PINV-00002	Brake pad set bought for this job, into the main store	210.00 + 10.50 VAT
8	PINV-00003	Sub-work on credit, expense 6900, centre JC-1023	100.00 + 5.00 VAT
9	EXP-00001	Cash sub-work, expense 6900, centre JC-1023	40.00 + 2.00 VAT
10	AWV-0031	Additional Work voucher: clip kit 1 at 45.00. State DIRECT	47.25
11	Invoice draft	4 lines: labour, oil, brake pads, clip kit. The wiper is skipped	845.00 + 42.25 = 887.25
12	INV-00001	Invoice submitted on credit, advance applied	see journal
13	RCT-00001	Customer pays the balance	362.25

The invoice (step 12) posts the journal below. Every row carries the job centre JC-1023.

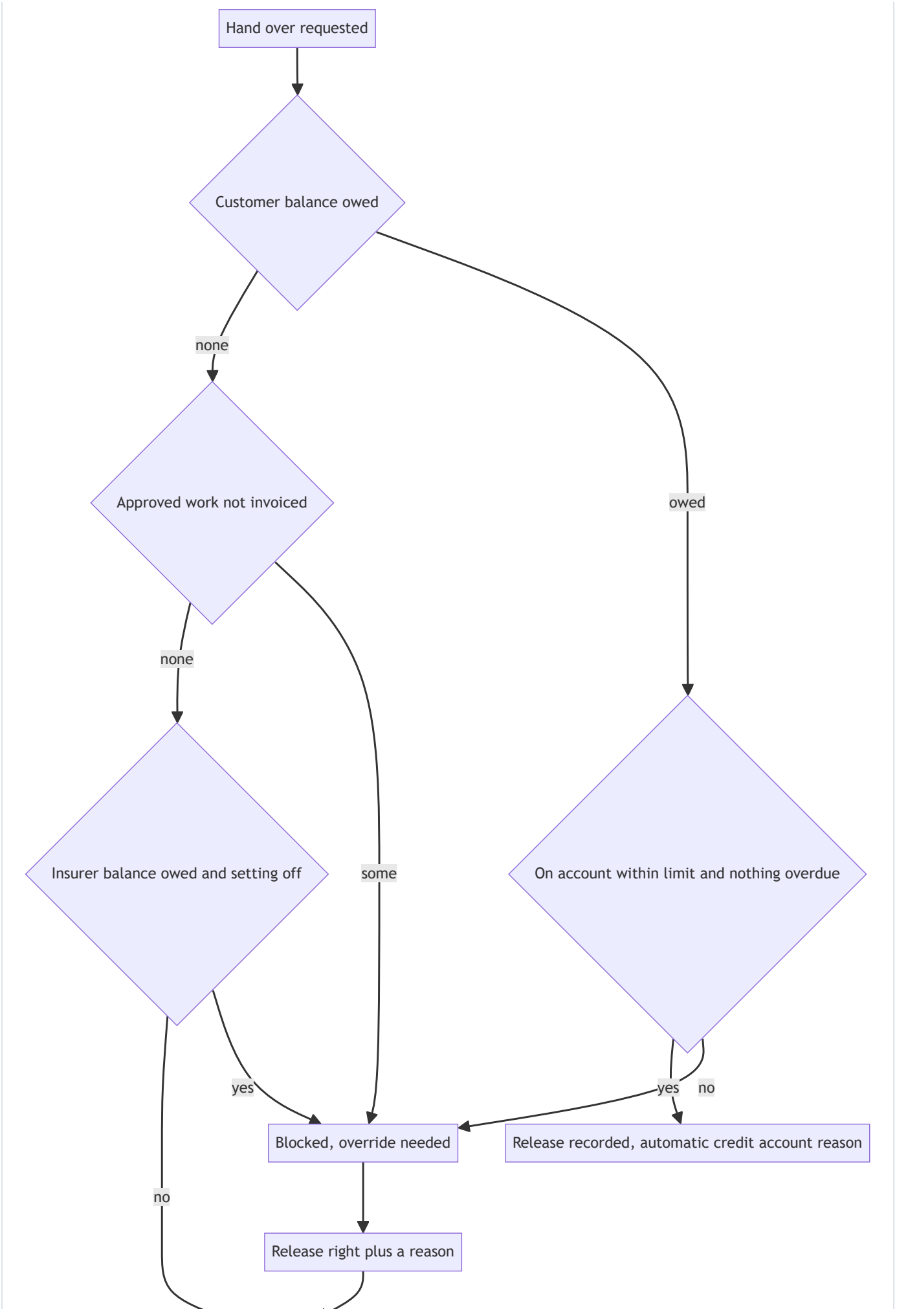
ACCOUNT	DR	CR
Customer Advances (2300)	500.00	
VAT Output (2200), advance VAT reversed	25.00	
Trade Receivables (1200)	362.25	
Sales (4000)		845.00
VAT Output (2200)		42.25

Cost of Goods Sold (5000)	273.00	
Inventory (1300)		273.00
Total	**1,160.25**	**1,160.25**

- **Receivable** is the invoice 887.25 less the advance 525.00 = 362.25, and the receipt RCT-00001 brings it to 0.00.
- **Cost** is 273.00: oil 4 × 12.00 = 48.00, brake pads 1 × 210.00 and clip kit 1 × 15.00, each at the moving average. The labour line has no cost.
- **Stock** after the invoice: oil 16, brake pads 0, wipers 5 (the declined wiper was never touched), clip kits 9.
- **VAT return** box 1 shows taxable 845.00 and VAT 42.25. The advance was declared in the same box when it was received (500.00 and 25.00) and reversed on the invoice (minus 500.00 and minus 25.00), so the supply is taxed once. Box 9 shows inputs of 865.00 taxable and 43.25 VAT.
- **Job profit** from the centre JC-1023: Sales 845.00 less cost of goods 273.00 less sub-work 140.00 = **432.00**.

Receiving money, handing over the car

1. **Receive money.** After the invoice, press `Receive money` on the Invoice tab. It makes a receipt against the invoice. The Still to pay tile falls and the row shows "Paid ✓" at zero.
2. **Generate the gate pass.** Press `Generate gate pass` (the card is called **Hand over car**). The sheet asks who is collecting the car, the odometer out and the fuel level, and offers a checklist that is empty by default: Keys, Mulkiya (registration card), Spare wheel, Jack and tools, Personal items returned, Old parts.
3. **Print or save.** `Print gate pass` and `Download PDF` appear once the car is released. The pass number looks like GP-00001 in the demo company and the pass has no money on it at all.


Hand over requested
Customer balance owed
none
owed
Approved work not invoiced
none
some
Insurer balance owed and setting off
On account within limit and nothing overdue
yes
yes
no
no
Blocked, override needed
Release recorded, automatic credit account reason
Release right plus a reason

Released, gate pass made, job Delivered

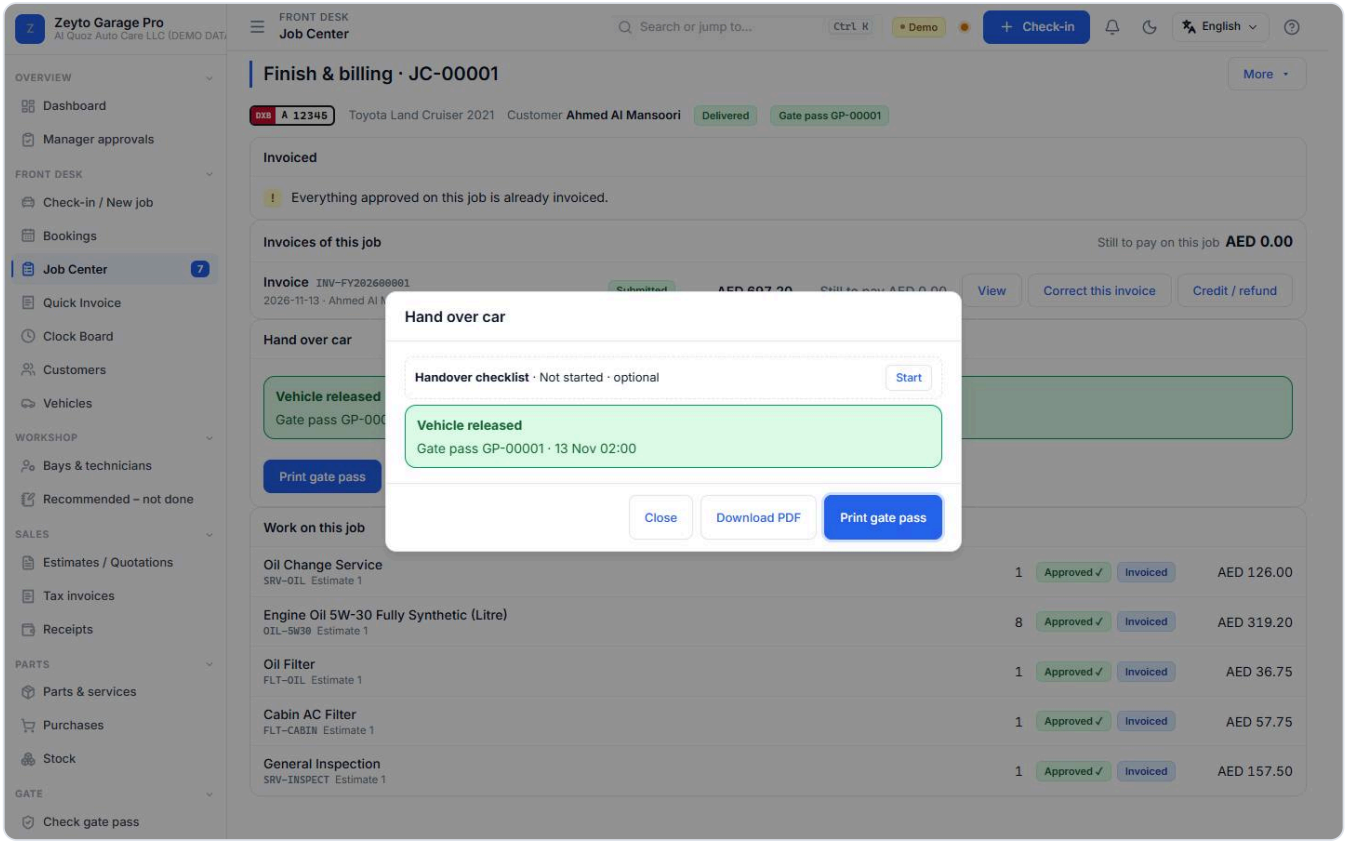
What can stop a car. The three blockers are the customer's unpaid balance, approved work that is not invoiced, and (only when the company setting "insurer share exempt from release" is switched off, its default being on) the insurer's balance. An override needs the right `garage.release.override` and one reason: "Fleet / corporate account on credit", "Owner approved: pay on next visit", "Insurer guarantee letter on file" or "Other: type the reason" (at least 5 characters). The release is an append-only record, it posts nothing, and a release with a balance must carry its reason (the database refuses otherwise).

PAYMENT BEFORE HAND OVER IS A COMPANY SETTING

Under `Settings ▸ Workshop` the company decides whether an unpaid balance stops the car. With the setting off, Receive money is an optional step beside the hand over and Generate gate pass leads. A person without the prices right sees only "This car can't leave yet. Ask the cashier." instead of any amount.

Not verified in code: the default value of the hand-over payment setting on a fresh install. The screen follows whatever the server reports in its list of release blockers.

Source: `src/Zeyto.Edge/Domain/Garage/JobActionRules.cs`, `src/Zeyto.Edge/Domain/Garage/GarageRelease.cs`, `src/Zeyto.Web/src/screens/garage/hub/MoneyTab.tsx`, `src/Zeyto.Web/src/screens/garage/hub/flowRail.ts`, `src/Zeyto.Web/src/screens/garage/release/release.ts`, `docs/garage-advance-tax-invoice.md`, `tests/Zeyto.Tests/GoldenGarageJobTests.cs`, `src/Zeyto.Edge/Data/migrations/0009-seed-core.sql`



The Hand over car sheet after release. The page is called "Finish & billing" and the job is JC-00001. The sheet offers an optional Handover checklist (Not started), shows "Vehicle released" with the gate pass number GP-00001, and offers Print gate pass and Download PDF.

8. Insurance claims

When an insurance company pays for the repair, the customer still pays an **excess** (the deductible). Garage Pro splits one job into two invoices: one to the customer for the excess and one to the insurer for the rest. Both together equal the job to the fil, and VAT is counted once.

Setting up a claim

1. **Make the insurer a customer.** In `Customers` open the insurance company and tick **Insurer**. The claim picker lists only insurers.
2. **Open the Insurance tab.** It appears on the job card strip after History. Tick **Insurance claiming**.
3. **Fill the claim.** Choose the insurance company, then the policy number, **Claim No**, **LPO No** and date, police report number and accident date. A claim number already used on another job of the same insurer asks for confirmation.
4. **Type the excess.** Type an amount such as 500.00 and choose **Excess VAT**: **Excess incl. VAT** or **Excess + VAT**. The line under the field tells you at once: "Customer pays AED 500.00 (476.19 + VAT 23.81)" and "Insurer invoice less AED 476.19".
5. **Press** `Save claim`. The job allows one claim. After either invoice exists the claim is locked ("Locked by INV-00002. Cancel it to change.").
6. **Make the two invoices.** The customer's excess invoice has one line for the excess item. The insurer's invoice shows the covered lines with the excess taken off as a document discount, labelled "Less: insurance excess (paid by insured)".

> **SPLIT BY WHO PAYS**
>
> With a claim on the job, covered lines go to the insurance company and additional work goes to the customer. Insurance jobs appear in **Insurance jobs** and in the claims register.

REAL EXAMPLE

GS_INS_19: a 1,260.00 job with a 500.00 inclusive excess

The job has Body labour 4 × 150.00 = 600.00 and Body parts 2 × 300.00 = 600.00, taxable 1,200.00, VAT 60.00, total 1,260.00. The excess is 500.00 including VAT. The product's rules, in `InsuranceExcessMath`, give: net = round(500 × 100 / 105) = 476.19, VAT = round(476.19 × 5 / 100) = 23.81, total 500.00 exactly.

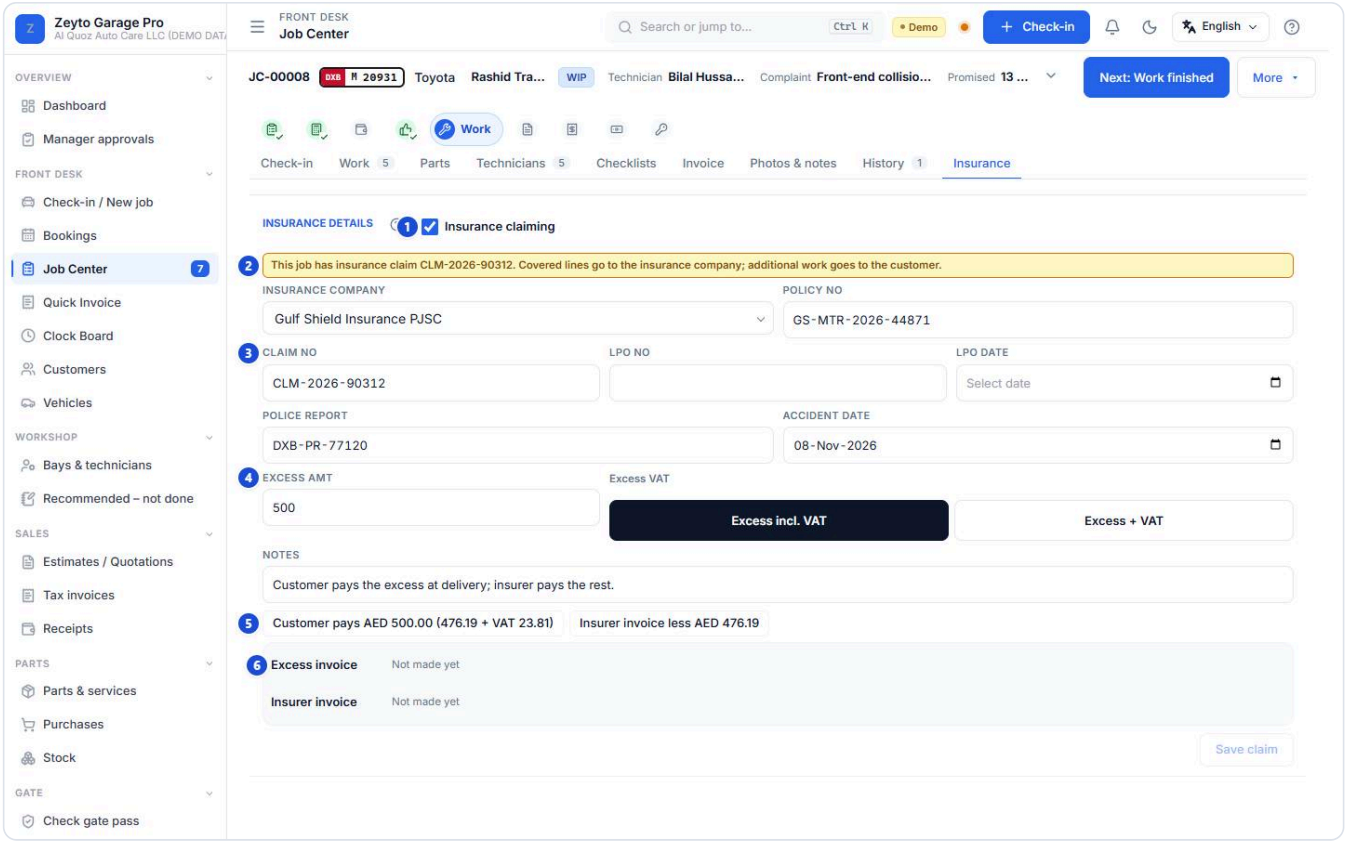
CUSTOMER'S EXCESS INVOICE	DR	CR
Trade Receivables (1200)	500.00	
Sales (4000)		476.19
VAT Output (2200)		23.81
Total	**500.00**	**500.00**

The insurer's invoice deducts 476.19 from the taxable 1,200.00, leaving 723.81. The deduction is shared in whole fils across the two equal lines, with the largest line taking the remainder, so the lines are 361.91 and 361.90, each with VAT 18.10. VAT is 36.20, and the half fil lost in per-line rounding goes to the document rounding of minus 0.01.

INSURER'S INVOICE	DR	CR
Trade Receivables (1200)	760.00	
Rounding Difference (4920)	0.01	
Sales (4000)		723.81
VAT Output (2200)		36.20
Total	**760.01**	**760.01**

Customer 500.00 plus insurer 760.00 equals 1,260.00, and Trade Receivables nets to 1,260.00. The VAT return shows box 1 taxable 1,200.00 and VAT 60.01 (23.81 plus 36.20). Before this was fixed the insurer was billed 760.01.

The exclusive twin, GS_INS_19b, has an excess of 500.00 plus 25.00 VAT. The customer pays 525.00, the insurer's invoice is 700.00 plus 35.00 VAT = 735.00, and 525.00 plus 735.00 = 1,260.00 with no rounding row at all.



The Insurance tab of JC-00008. The tab appears after History, only on a job that is an insurance claim. The yellow line reads "This job has insurance claim CLM-2026-90312. Covered lines go to the insurance company; additional work goes to the customer."

1. Insurance claiming switch.
2. The insurer (Gulf Shield Insurance PJSC) and the policy number.
3. Claim no, LPO no and date, police report and accident date.
4. Excess amount (500) and whether it includes VAT. Excess incl. VAT is selected here.
5. The split: "Customer pays AED 500.00 (476.19 + VAT 23.81)" and "Insurer invoice less AED 476.19".
6. Excess invoice and Insurer invoice, both "Not made yet" until the invoices are made.

Claim states and the register

- The **Claims** register (`Reports ▸ Insurance`) lists Claim No, LPO No, insurer, job number, plate, customer, Claim status, Claim amount, Excess, Insurer invoice, Insurer owes and Age (days). It filters by insurer, status and "Open only", and exports to PDF, XLSX and CSV.
- The claim state is derived, never typed. With no live insurer invoice it reads `NO_INSURER_INVOICE` . Once there is one, it follows the payment status of the insurer's balance.
- The excess flag checks the pair of invoices: `EXCESS_NOT_INVOICED` (an excess exists and the customer invoice does not), `NO_INSURER_INVOICE` (the excess is billed and the insurer's is not), `CUSTOMER_OWES` (the excess is still unpaid) or `OK` .
- The reports **Insurer ageing** (what each insurer owes, by age) and **Excess invoices** complete the family.

> Source: `src/Zeyto.Edge/Domain/Garage/InsuranceExcessMath.cs` , `src/Zeyto.Edge/Domain/Garage/GarageInsuranceAgeing.cs` , `src/Zeyto.Edge/Data/migrations/9006-garage-insurance.sql` , `src/Zeyto.Web/src/screens/garage/insurance/InsuranceBlock.tsx` , `src/Zeyto.Web/src/screens/garage/insurance/ClaimsRegister.tsx` , `src/Zeyto.Web/src/screens/garage/insurance/DocFormInsurance.tsx` , `tests/Zeyto.Tests/GoldenGarageInsuranceTests.cs`

9. Vehicle history, dashboards, the daily digest and reports

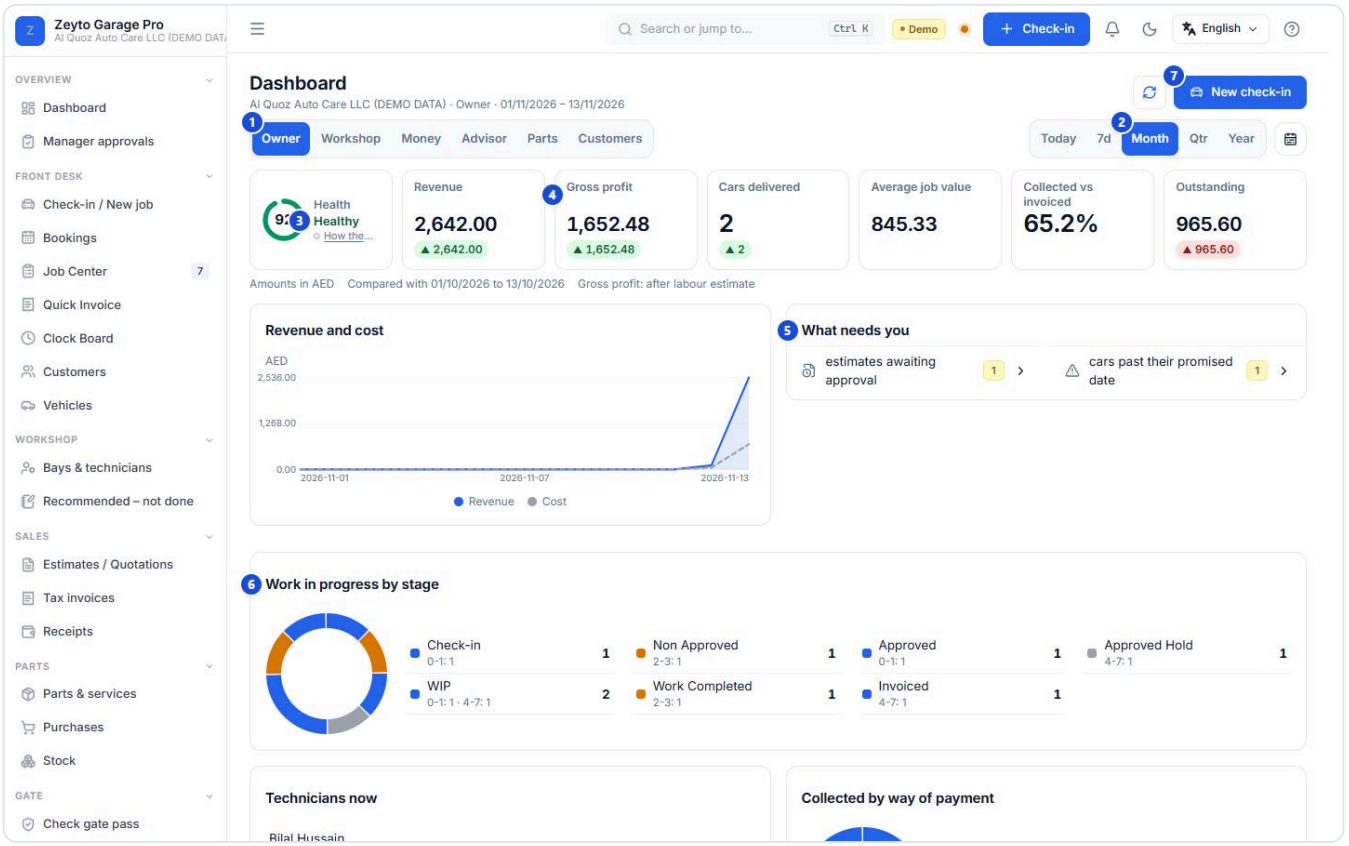
The car file

Open `Reports ▸ Cars ▸ Car file` (route `/garage/vehicles`) and pick a car. The panel shows the car, its colour, owner and VIN, and the figures **Visits**, **Last odometer**, **First visit**, **Last visit**, **Billed** and **Cost**. Under them, every visit is a block: the complaints, the odometer, the advisor, the lines with quantity and hours, the labour cost (marked "estimated" when not clocked), the parts with their warranty and supplier ("Bought for this job" or "Last bought from"), and totals. Money fields show only to users with the prices right and cost fields only with cost access. History typed from an old system is tagged "Old system" and is shown on this page only, reports do not include it.

The dashboards

The home page has a switcher of six views. You see only the views your rights allow, and you land on the one that fits your role.

VIEW	WHO MAY OPEN IT
Owner	Prices right (`garage.prices.view`). The settings-amend owner lands here.
Workshop	Any garage user (counts and quantities only).
Money	Prices right or accounting right. The accountant lands here.
Advisor	The right to create garage documents (the front desk).
Parts	Any garage user.
Customers	Prices right.



The Owner dashboard. It is the first screen. Revenue is shown without VAT (2,642.00 AED for the month in the demo), and the note under the figures reads "Gross profit: after labour estimate".

1. The six views: Owner, Workshop, Money, Advisor, Parts and Customers.
2. Period buttons: Today, 7d, Month, Qtr and Year, with a calendar button beside them.
3. The health score of the workshop.
4. Key figures: revenue, gross profit, cars delivered, average job value, collected against invoiced, and outstanding.
5. What needs you: estimates awaiting approval and cars past their promised date.
6. Work in progress by stage, with the count in each state.
7. New check-in.

Day close

The cashier's **Day close** counts the day's takings by mode: Cash, Card, Bank and Cheque. Expected cash is the opening float plus cash taken, less cash paid back and cash paid out. A post-dated cheque and "on account" are not money yet and are left out. A cash short or over posts through the ordinary journal path.

The owner's daily report and the digest

The **Owner's daily report** (route `/garage/daily-report`, shown to a user with the settings-amend or accounting right) puts the day on one page. The same figures can be sent to owners every day. Configure it under `Settings ▸ Workshop ▸ Daily report`.

- **Default.** Off, time 21:00, all seven days, all sections on, no recipients.
- **Sections.** Headline (always), then money, workshop, people, stock, tomorrow and attention.
- **Attention list.** Day not closed, money problems, late cars, waiting answers, stock short and unlinked bookings.

- **Channels.** E-mail, WhatsApp automatic (through a cloud provider or a webhook) and WhatsApp link (a ready message you send). At most 10 recipients. The two provider tokens are kept in a separate secret store, never in the settings row.
- **Safety.** The digest only reads. Every figure comes from the same reader its dashboard or report uses, so it cannot disagree with the screen. Without the prices right the amounts are blank, and costs also need cost access.

Not verified in code: whether the WhatsApp automatic channel has been connected to a live provider on garage.zeyto.app. The code and settings exist.

The reports, by family

`Reports` opens a hub grouped by the question an owner asks. Every report is listed once and every family reads the same books.

FAMILY	THE QUESTION	EXAMPLES (REAL NAMES)
Services	What the workshop sells	Service sales, Top services, Service mix, Service hours
Parts	What sold, cost and shelf	Part sales, Consumed items, Parts sold with unknown cost, Consumables used, Dead parts, Item movements
Labour	Technician hours and bays	Labour hours, Technician performance, Timesheet, Bay utilisation
Customers	Who buys, owes, returns	Customer sales, Repeat customers, Lapsed customers, Service due, Declined work
Cars	Makes, models, history	Car sales, Car file, Fleet statement, In garage, Gate passes
Jobs	Job cards and profit	Job profitability (Job Analysis), Garage analytics, Comebacks, Not invoiced, Approval conversion, Supplement variance
Money	Takings, owed, VAT	Daily sales and collections, Receivables, Owner's daily report, Released with balance, VAT return, VAT Ledger
Insurance	Claims and insurers	Claims, Insurer ageing, Excess invoices, Insurance jobs

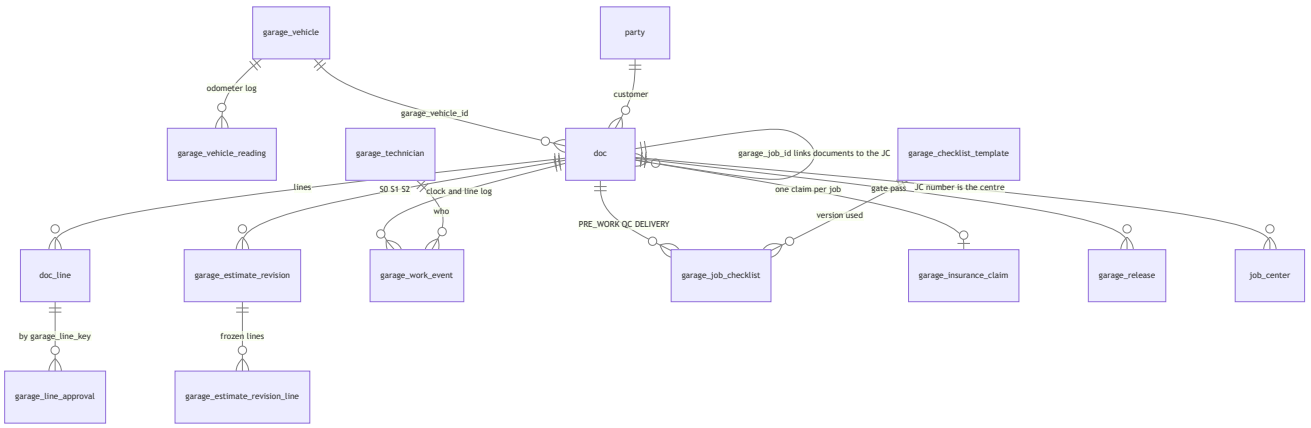
The twelve tiles on the first paint are, in order: Service sales, Part sales, Job profitability, Daily sales and collections, Receivables, Garage analytics, Consumed items, Labour hours, Car file, Comebacks, VAT return, Performance report. Reports belonging to a hidden module (section 10) disappear from the hub and from Ctrl+K.

> Source: `src/Zeyto.Web/src/screens/garage/reports/reportFamilies.ts`, `src/Zeyto.Edge/Domain/Garage/GarageDashboardViews.cs`, `src/Zeyto.Edge/Domain/Garage/GarageDayClose.cs`, `src/Zeyto.Edge/Domain/Garage/GarageDailyDigest.cs`, `src/Zeyto.Edge/Domain/Garage/GarageDigestSettings.cs`, `src/Zeyto.Web/src/screens/garage/vehicles/VehicleHistoryPanel.tsx`, `src/Zeyto.Web/src/screens/garage/dailyreport/DailyReportPage.tsx`

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10. How it is stored, hidden modules and roles

Garage Pro reuses the ERP's `doc` and `doc_line` tables. A job card is a `doc` of type JC, and a handful of `garage_` tables add what a garage needs. Two columns on `doc` tie any document to its car and its job: `garage_vehicle_id` and `garage_job_id`. Two columns on `doc_line` give a line its stable identity: `garage_line_key` and `garage_line_hash`.



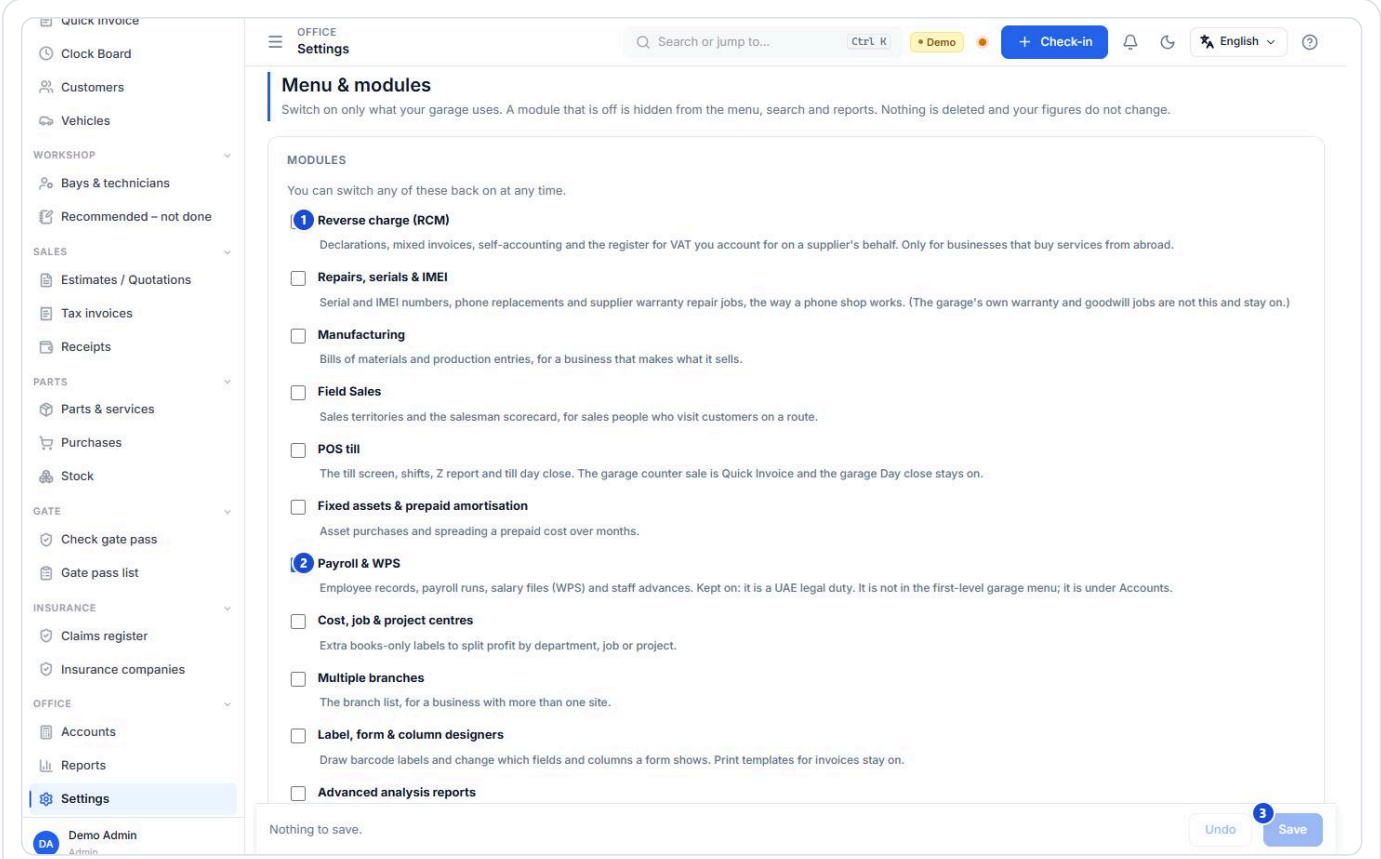
The garage tables around a job card. The ledgers (`gl_entry` , stock and VAT rows) are the ERP's own and are written only by the posting engine. The logs `garage_vehicle_reading` , `garage_estimate_revision` , `garage_line_approval` , `garage_work_event` and `garage_release` are append-only: the `garage_append_only()` trigger refuses an update or delete, so a correction is always a new row. The job's centre in `job_center` carries the job number (JC-1023), so profit by job is a profit by centre.

TABLE	HOLDS	MIGRATION
`garage_vehicle`	The car register: plate, VIN, make, model, year, owner	9001, 9002
`garage_vehicle_reading`	Odometer log, phase IN or OUT	9001
`garage_estimate_revision` , `garage_estimate_revision_line`	Frozen estimates S0, S1, S2 with the line hash	9001
`garage_line_approval`	Each customer decision: line key, decision, channel, hash, time	9001
`garage_release`	Release and gate pass, override reason, balance at release	9001, 9047
`garage_insurance_claim`	Claim fields and the excess split (net + VAT + rounding = gross, enforced by a check)	9006
`garage_checklist_template` and its version, section, item tables	Checklist Master, immutable versions	9007, 9043
`garage_job_checklist` , `garage_job_checklist_item` , `garage_job_checklist_answer` , `garage_job_checklist_photo`	A checklist filled on one job	9007
`garage_technician` , `garage_work_event`	Technicians and the clock log	9008
`garage_booking`	Bookings that can be linked to a check-in	9014

Modules that can be hidden

Under `Settings ▸ Menu & modules` the company keeps a switch per optional module. A module that is off is **hidden, never deleted**: its code, routes, posting and migrations stay, so switching it back on needs no developer. Posted documents keep their figures. The screens, menu tiles, Ctrl+K entries, reports and document numbers of an off module disappear, and a direct address shows a calm "switched off" page.

MODULE	ON BY DEFAULT	WHAT IT HIDES
Reverse charge (RCM)	No	Declarations, mixed invoices, self-accounting, register
Repairs, serials and IMEI	No	Serial and IMEI numbers, phone replacements, supplier warranty repair jobs (the garage's own warranty and goodwill jobs stay on)
Manufacturing	No	Bills of materials and production
Field Sales	No	Territories and the salesman scorecard
POS till	No	The till, shifts, Z report (the garage counter sale is Quick Invoice and Day close stays on)
Fixed assets and prepaid amortisation	No	Asset purchases, amortisation
Payroll and WPS	Yes	Employees, payroll runs, salary files, staff advances (kept on, it is a UAE legal duty)
Cost, job and project centres	No	Extra books-only labels (the job's own centre is separate)
Multiple branches	No	The branch list
Label, form and column designers	No	Barcode label designer, form and column designers (invoice print templates stay on)
Advanced analysis reports	No	Matrix reports, executive dashboard, working capital, supplier intelligence, exception centre
Item variants	No	One part in several sizes or colours



Settings, Menu & modules. The page says "Switch on only what your garage uses. A module that is off is hidden from the menu, search and reports. Nothing is deleted and your figures do not change." The Payroll & WPS line adds "Kept on: it is a UAE legal duty."

1. A module that is off disappears from the menu, search and reports.
2. One tick box for each optional module, such as Reverse charge (RCM) and Payroll & WPS.
3. Save and Undo. The line beside them reads "Nothing to save." until you change a box.

Roles

Roles come from permission keys, never from an edition. The garage installs these roles beside the ERP's Admin, Sales, Cashier and Accountant: **Service Advisor**, **Technician**, **Garage Cashier** (added next to Service Advisor for the cash desk, with create and submit of receipts, expenses, purchases and stock adjustments), **Workshop Manager** and **Security Guard** (the gate pass check). Key rights you met in this chapter: `garage.create`, `garage.submit`, `garage.estimate.issue`, `garage.approval.record`, `garage.extra.direct`, `garage.job.progress`, `garage.job.hold`, `garage.job.cancel`, `garage.release`, `garage.release.override`, `garage.prices.view`, `garage.insurance.manage`, `garage.insurance.invoice` and `garage.vehicles.view`.

Not verified in code: the exact list of rights each role holds. Check `Settings ▸ Users and roles` on your own install.

> Source: `src/Zeyto.Edge/Data/migrations/9001-garage-foundation.sql`, `9006-garage-insurance.sql`, `9007-garage-checklists.sql`, `9008-garage-workshop.sql`, `9014-garage-bookings.sql`, `9024-garage-workshop-flow.sql`, `9047-garage-gate-check.sql`, `9011-garage-role-fixes.sql`, `src/Zeyto.Web/src/screens/garageModules.ts`

11. Common mistakes

SYMPTOM	CAUSE	FIX

The approval buttons are dim: "The estimate is out of date. Save the estimate again first."	A line changed after the estimate was saved.	Press `Save estimate` again, then ask for the answer.
A line that was approved is waiting again.	You edited its quantity, rate, discount, description or tax code, so the hash no longer matches.	Ask the customer again. The list shows "Changed from A to B".
Issue parts is refused with MATERIAL_IS_JOB_LINE.	The part is a line of the job, and the invoice issues it.	Do nothing. Issue here only materials that are not lines.
The invoice is refused with GARAGE_PART_ALREADY_ISSUED.	The same item was issued on the Parts tab and is also a line.	Use `Return to Store` for the issued quantity, then invoice.
A part is missing from the invoice.	The line is Not approved, Declined or Withdrawn. It is listed under the Invoice tab with "It will not be invoiced."	Get the approval, or accept that it stays unbilled.
"Take a receipt against the invoice instead."	You asked for an advance after a live invoice exists.	Use `Receive money`.
"This car can't leave yet. Ask the cashier."	A balance, unbilled approved work or an insurer balance stops the car, and your role cannot see prices.	The cashier takes payment, or a user with the release override right releases with a reason.
The margin of a job looks too high.	A part was sold with no stock and no cost, so it posted at cost 0.	Enter the item cost and open the report "Parts sold with unknown cost".
Stock shows a negative quantity.	The setting **When a sale is more than the stock** is on Allow (the default of a garage install).	Receive the purchase, or choose Allow, but warn or Block under Settings ▸ Costing & stock rules.
The claim cannot be edited.	An excess or insurer invoice exists.	Cancel that invoice, change the claim, make the invoices again.
Add work or a button is missing for a technician.	The Technician role sees no prices, and in Simple workshop mode assign and clock are under More.	Check the role and Workshop mode.
A screen has disappeared from the menu.	Its module is switched off.	`Settings ▸ Menu & modules`.
A cloud link says "Waiting for internet, will send when online".	The shop PC cannot reach the cloud right now.	Wait. It retries by itself, and an answer is kept for up to 60 days.

> Source: `src/Zeyto.Web/src/screens/garage/hub/estimateStep.ts`, `src/Zeyto.Edge/Domain/Garage/GarageLineGuard.cs`, `src/Zeyto.Edge/Domain/Garage/JobActionRules.cs`, `src/Zeyto.Edge/Domain/Garage/GarageRelease.cs`, `docs/garage-job-`

> `parts-issue.md`, `docs/garage-negative-stock-costing.md`

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12. Check yourself

1. Open a job with an approved line and a declined line, then `Reports ▸ Jobs ▸ Approval conversion`. The approved and declined counts match what the Work tab shows.
2. Invoice a job that has a stock part. Open `Reports ▸ Parts ▸ Item movements` for that part. You should see exactly one movement out, at the invoice number, and the Parts tab "Issued at billing" list shows the same quantity and cost.
3. Take an advance, then invoice. Open the invoice's ledger: Customer Advances (2300) is debited by the advance net, and the account's balance for the job returns to 0.00.
4. In the `VAT return`, box 1 for the period equals the sum of the taxable and VAT of the invoices and advances less the advance reversals, exactly as in the JC-1023 example (845.00 and 42.25).
5. Open `Reports ▸ Jobs ▸ Job profitability (Job Analysis)` for a job with sub-work. Revenue less cost of goods less sub-work equals the margin shown (432.00 for the JC-1023 story).
6. Make an insurance job with an excess. The customer's excess invoice plus the insurer's invoice equal the job total. In the Claims register the two invoices both show and Excess flag turns OK once the customer has paid.
7. Release a car with a balance owed. Without the override right the release is refused, and with it a reason is demanded. Open `Reports ▸ Cars ▸ Gate passes` and see the pass.
8. Open `Reports ▸ Parts ▸ Parts sold with unknown cost`. It should be empty. Anything listed is a sale whose margin is overstated until you enter the cost.

> Source: `tests/Zeyto.Tests/GoldenGarageJobTests.cs`, `tests/Zeyto.Tests/GoldenGarageInsuranceTests.cs`, `src/Zeyto.Web/src/screens/garage/reports/reportFamilies.ts`

OTHER PRODUCTS

Sharp: construction and contracting

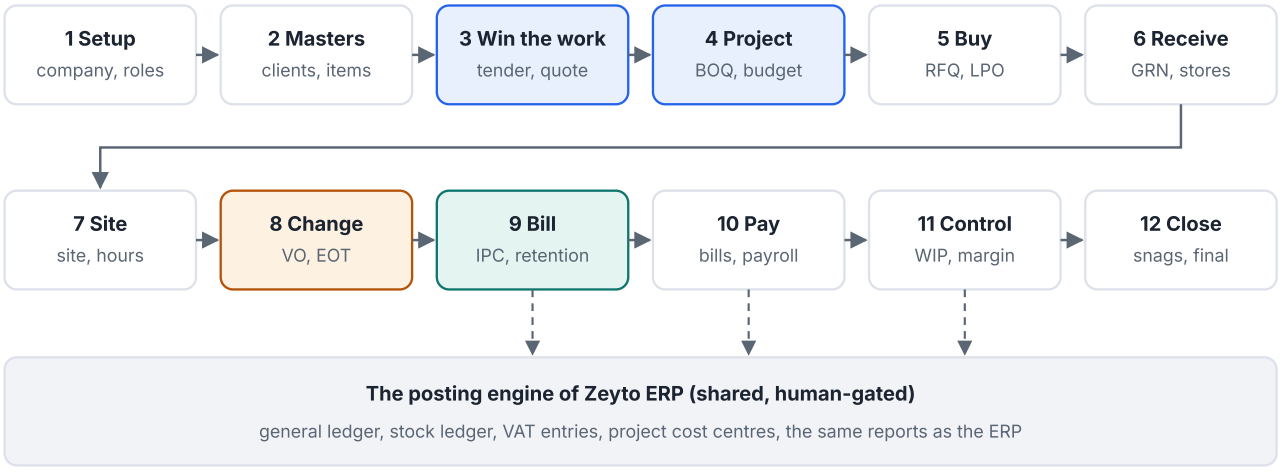
Follow one building contract through Zeyto Sharp from the first tender to the last retention release: price the work, set up the project, buy, build, change, bill the client, pay the suppliers and subcontractors, watch the margin and close the job, with the money moving exactly as the product posts it.

SCOPE AND HONESTY OF THIS CHAPTER

This chapter describes Zeyto Sharp 0.2.0 as it is built in the repository (`zeyto-sharp` , branch `sharp/main`). Sharp is a separate product built on the Zeyto ERP engine: the same ledgers, VAT and posting rules, plus a contracting layer. The figures come from three places and each example says which one it uses. Golden tests assert every ledger row. The demo company seed script gives the contract, the bill of quantities and the percentages. Where the seed does not store a posted figure, the number is derived here with the product's own billing formula and the example says so. A short section near the end separates what was checked on the live demo from what is code only.

1. The big picture: a contract that is billed in slices

A contractor does not sell a thing and get paid for it. The client signs one contract for a large price, and the contractor earns it over months. Every month the contractor measures how far each part of the work has got, asks the client to certify that, and invoices that slice. The client holds back a percentage (retention) until the building is handed over, and may have paid an advance at the start that must be paid back slice by slice. Meanwhile the contractor buys materials, hires subcontractors, pays labour, gets instructions to change the scope, and loses days to delays that are not its fault. Sharp keeps all of this under one record called the **project** and one price list called the **BOQ** (bill of quantities).



The twelve stages. They follow the stage list of the product's own workflow guide (Company setup, Masters, Win the work, Set up the project, Buy, Receive and store, Execute on site, Change, Bill and collect, Pay, Control, Close the project). Stages 3 and 4 decide the contract, 8 and 9 decide the income, and everything that costs or earns money lands in the shared ledgers underneath.

What Sharp adds to the ERP

Projects with a work breakdown, a BOQ, a budget and a schedule; tenders and estimates; requisitions, RFQs and subcontracts; progress bills, retention, advances and variations; claims for extension of time; snags; site and labour records; work-in-progress reporting. All of it posts through the ERP engine, so the trial balance, VAT return and statements stay one set of books.

What stays the same as the ERP

The sidebar, the lists and forms, the typed multi-column pickers, DD/MM/YYYY dates, UAE VAT at 5 percent, document numbers by prefix. The ERP migrations 0001 to 0108 are untouched. Sharp adds its own tables, all named `sharp_`, in migrations numbered 9001 and up.

The one idea to hold on to

The contract value is billed in slices. A slice can never be larger than the work the site engineer has recorded as done, and the client's certificate number is needed before the invoice can be issued. Most of the rules in this chapter protect that chain.

> Source: `docs/sharp/user-guide-workflow.md` (generated from `src/Zeyto.Web/src/screens/sharp/sharpGuideFlow.ts`), `docs/sharp/README.md`, `src/Zeyto.Web/src/nav.ts`

2. Setting up the company, the masters and the people

Sharp starts with the same company setup as the ERP (company, branch, chart of accounts, VAT registration) and then needs a few contracting accounts and a small set of masters. A fresh database already has the project cost accounts 5300 to 5400, Retention Receivable 1250, Retention Payable 2150, Goods Received Not Invoiced 2151 and Labour Cost Absorbed 6190, so you do not create them by hand.

The sidebar

The sidebar groups the screens by the way a project is run. These are the group and screen names as the product shows them.

GROUP	SCREENS	USE IT FOR
Home	Home, My Day, Portfolio, Approvals, Notifications	What needs you today, all projects on one board, what waits for your approval
Win the work	Leads, Tenders, Estimates, Quotations, Contracts	From the first enquiry to a signed contract
Projects	Projects, Project Dashboard, Contract Clauses, Claims and EOT, Delay Events	The project record, its clause register and the time and cost claims
Plan	Project Tasks, Schedule and Views, Map, Category Master, Rate Library	Schedule, Gantt and map views, the rate library for pricing
Build and Site	Sites, Permits to Work, Incidents, Toolbox Talks, Transfers Between Sites, Site Gate, Inspection Templates, Non-conformance Reports, Snags and Defects, Supplier Returns, Supplier Claims	Site safety, quality and defects
Bill and Cash	Finance Hub, Subcontract Final Accounts	Cash position and the closing accounts with subcontractors

GROUP	SCREENS	USE IT FOR
Assets	Assets	Plant and equipment charged to projects
Purchase	Material Requests, Requisitions, RFQ and Cost Comparison, Awards, Purchase Order, Delivery and Inspection, Goods Receipts	The buying chain from need to receipt
Sales	Progress Bills, Advance Tax Invoices, Retention, Variation Orders, Sales Invoice, Receipts	Billing the client and collecting
Accounting	Petty Cash and PC Vouchers	Site cash floats
Employees	Timesheets, Payroll, WPS	Hours, salaries and the UAE wage protection file
Settings	Approvals and Workflows, Users and Permissions	Who approves what, and who can do what

Masters to have before the first project

- **Clients and suppliers.** One party record each. Clients are the people who certify your bills; suppliers and subcontractors are the people you pay.
- **Items and categories.** Materials you stock or buy for a job, with the Category Master and the Rate Library as pricing aids for the estimate.
- **Cost centres and job centres.** The demo company uses three cost centres (CC-SITE, CC-HO, CC-PLANT) and three job centres (JC-CIVIL, JC-MEP, JC-FITOUT) so that cost can be reported by place and by trade.
- **Stores and sites.** A store holds stock (S-V24 for the Villa 24 site, S-YARD for the yard); a site is where people check in (SITE-V24, SITE-YARD).
- **Employees.** Basic salary, allowances, join date and designation. The demo has 14 employees. Gratuity at leaving is worked out from the join date and the basic (see section 9).

Dimensions: the labels that make reports possible

Every voucher in Sharp can carry the project, and the cost centre or job centre, as dimensions. A purchase invoice posted with the project **Villa 24** and the cost centre CC-SITE is found by the project cost report, the cost-centre report and the trial balance by dimension. If you skip the project on a cost voucher, the cost lands in the ledger but the project margin never sees it. That is the most common reason a project shows too good a margin, and it is why the table of common mistakes at the end starts with it.

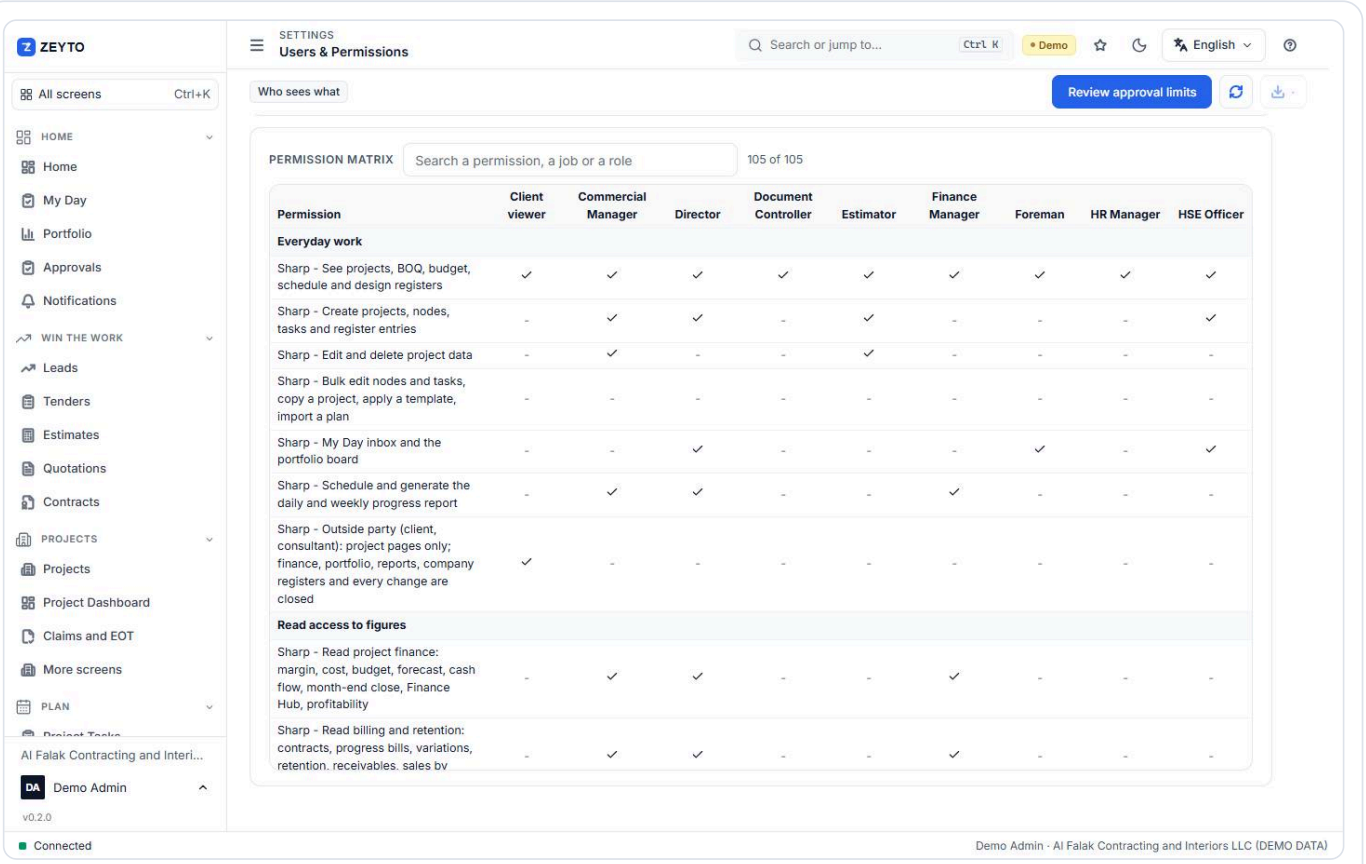
Roles and permissions

Sharp ships ready-made roles. The login page of the demo lists 23 demo users across the roles. A role is a bundle of permissions; the screens and buttons you see follow the permissions you hold.

ROLE	TYPICAL JOB	PERMISSIONS THAT MATTER MOST
Director	Owner of the company; sees everything and approves large items	Approval rights across billing, retention, claims and closing
Project Manager	Runs one or more projects	`sharp.progress.approve`, `sharp.proc.approve`, `sharp.billing.approve`

ROLE	TYPICAL JOB	PERMISSIONS THAT MATTER MOST
QS / Estimator	Prices tenders, builds the BOQ, prepares bills	`sharp.tender.price`, `sharp.boq.approve`, `sharp.billing.invoice`
Site Engineer, Foreman	Record progress, snags and hours on site	`sharp.view`, `sharp.create`, `sharp.snag.*`
Storekeeper	Receives, stores and issues material	Goods receipt and stock permissions
Procurement Officer	Runs RFQs and purchase orders	`sharp.proc.approve` where granted
Accountant	Posts, collects, pays	`sharp.finance.post`
HSE Officer	Permits, incidents, toolbox talks	Site safety screens
Client viewer	An outside party who may see a project	`sharp.external` only

The second role set adds Document Controller, Commercial Manager, Finance Manager, Subcontract Administrator, Estimator, Planner, Quality Engineer, Plant Manager, Procurement Manager, HR Manager and Payroll Officer. Other permission families in the code are `sharp.retention.approve`, `sharp.claims.*`, `sharp.timesheet.approve`, `sharp.labour.allocate` and `sharp.project.close`.



Who sees what. The permission matrix lists 105 permissions against the roles, with groups such as Everyday work and Read access to figures. A tick means the role holds that permission. The button Review approval limits sits above it.

Approval rules

DEFAULT APPROVAL THRESHOLDS

A new database approves by value: a requisition above AED 25,000, a purchase order from AED 25,000, a subcontract from AED 50,000, and every variation, advance invoice, progress bill, liquidated-damages charge and final account. The demo company adds two extra rules (a variation above 10,000 and a requisition above 25,000). In a new database the person who raised a document cannot approve it; the demo turns that self-approval setting on so one demo user can walk a whole story. You change all of this under `Settings ▸ Approvals and Workflows` .

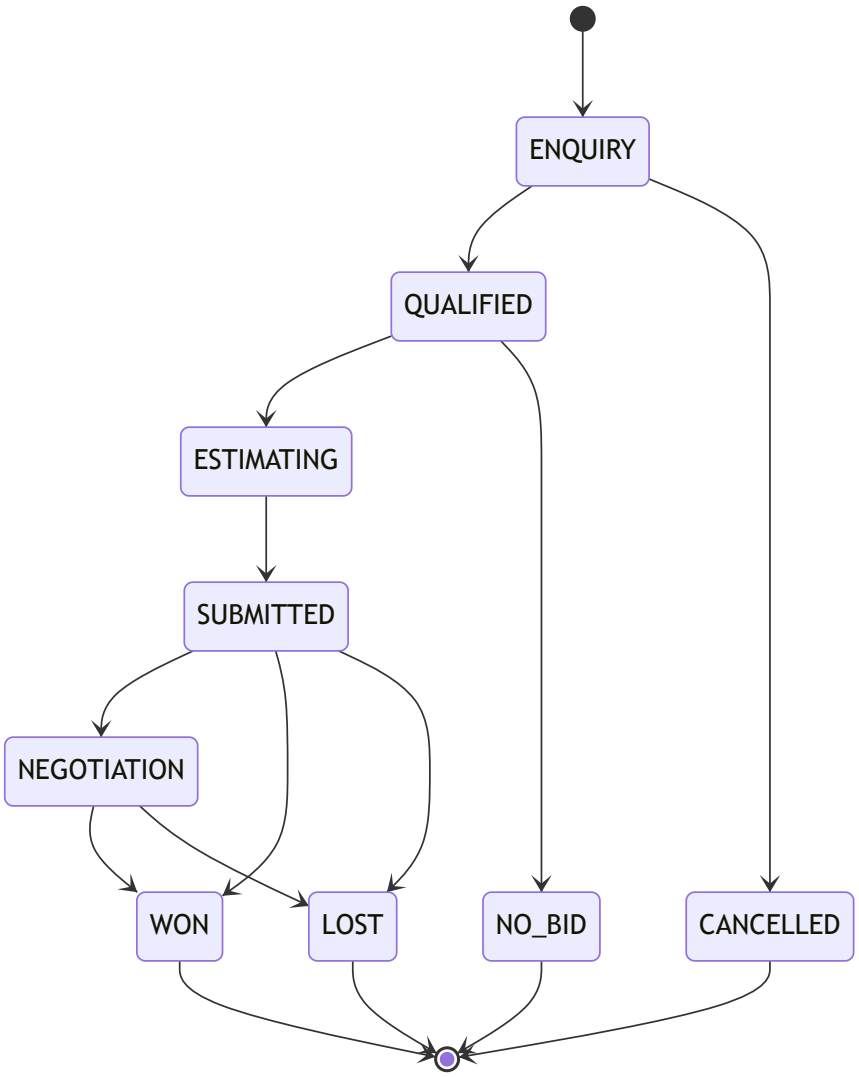
This chapter names the permissions that its screens need but does not tabulate every grant. The full mapping is the permission matrix under `Settings ▸ Users & Permissions` (the Who sees what view, 105 permissions in the demo build), and the role definitions live in migrations `9971-sharp-default-roles.sql` and `9999ha-sharp-roles-v2.sql` .

> Source: `src/Zeyto.Web/src/nav.ts` , `docs/sharp/user-guide-workflow.md` , `9971-sharp-default-roles.sql` , `9999ha-sharp-roles-v2.sql` , `tools/demo-seed/lib/masters.mjs`

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3. Winning the work: lead, tender, estimate, quotation, contract

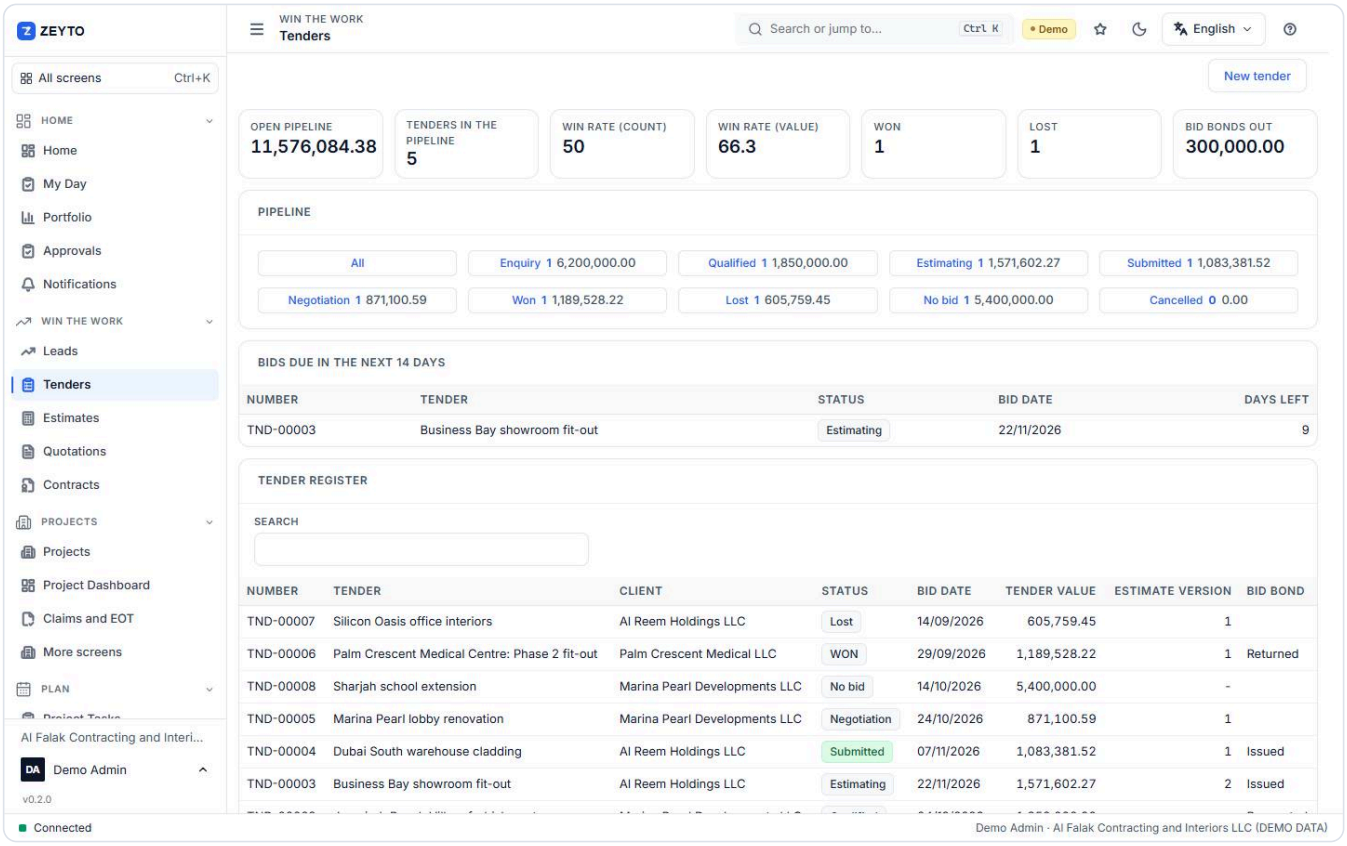
Before a project exists, you spend money pricing it. Sharp keeps that effort separate from delivery so that a lost tender never pollutes a live project, and so the estimate that won the job becomes the project budget.



Tender states. The nine states are the values the database accepts for a tender (ENQUIRY, QUALIFIED, ESTIMATING, SUBMITTED, NEGOTIATION, WON, LOST, NO_BID, CANCELLED). The arrows show the normal order; the database restricts the set of values and the screens decide which move you may make next. The demo company holds eight tenders, TND-00001 to TND-00008, one in each state except Cancelled (the pipeline strip shows Cancelled 0).

1. **Record the enquiry.** Open `Win the work ▸ Leads` for a first contact, or go straight to `Win the work ▸ Tenders` when a client has sent you a tender pack. The tender gets a number such as TND-00001.
2. **Price it.** Open `Win the work ▸ Estimates`. An estimate holds items with quantities and unit rates, and can use the Rate Library. Pricing is a separate permission (`sharp.tender.price`) and awarding is another (`sharp.tender.award`).
3. **Quote it.** Open `Win the work ▸ Quotations` to send the client a price. Keep the tender and the quotation consistent by hand: the product does not link a lead quotation to a tender quotation.
4. **Award.** When the client says yes, move the tender to WON. The demo company's TND-00006 was won and became the project P-00004 Palm Crescent Medical Centre Phase 2.
5. **Sign the contract.** Open `Win the work ▸ Contracts`. A contract carries lines, the advance percentage, the retention percentage and cap, the release terms, the defects liability period, the payment days, the liquidated-damages rate and the revenue method (A to D,

see section 8). A contract moves through DRAFT, AWARDED, ACTIVE, COMPLETE, CLOSED and TERMINATED.



The Tenders page. The strip counts the pipeline by state: Enquiry 1, Qualified 1, Estimating 1, Submitted 1, Negotiation 1, Won 1, Lost 1, No bid 1, Cancelled 0. Below it, "Bids due in the next 14 days" and the register with value, estimate version and bid bond. TND-00006, Palm Crescent Medical Centre: Phase 2 fit-out, is Won at 1,189,528.22.

> **TIP**
>
> Fill in the contract terms before the first bill, not after. Retention, advance and the revenue method are read every time a bill is calculated. If you change them after bill 1, bill 1 keeps its old numbers and bill 2 uses the new ones.

> Source: `docs/sharp/user-guide-workflow.md` (stage 3), `9001-sharp-*.sql` and later Sharp migrations (the `status` check constraints), `tools/demo-seed/lib/projects.mjs`

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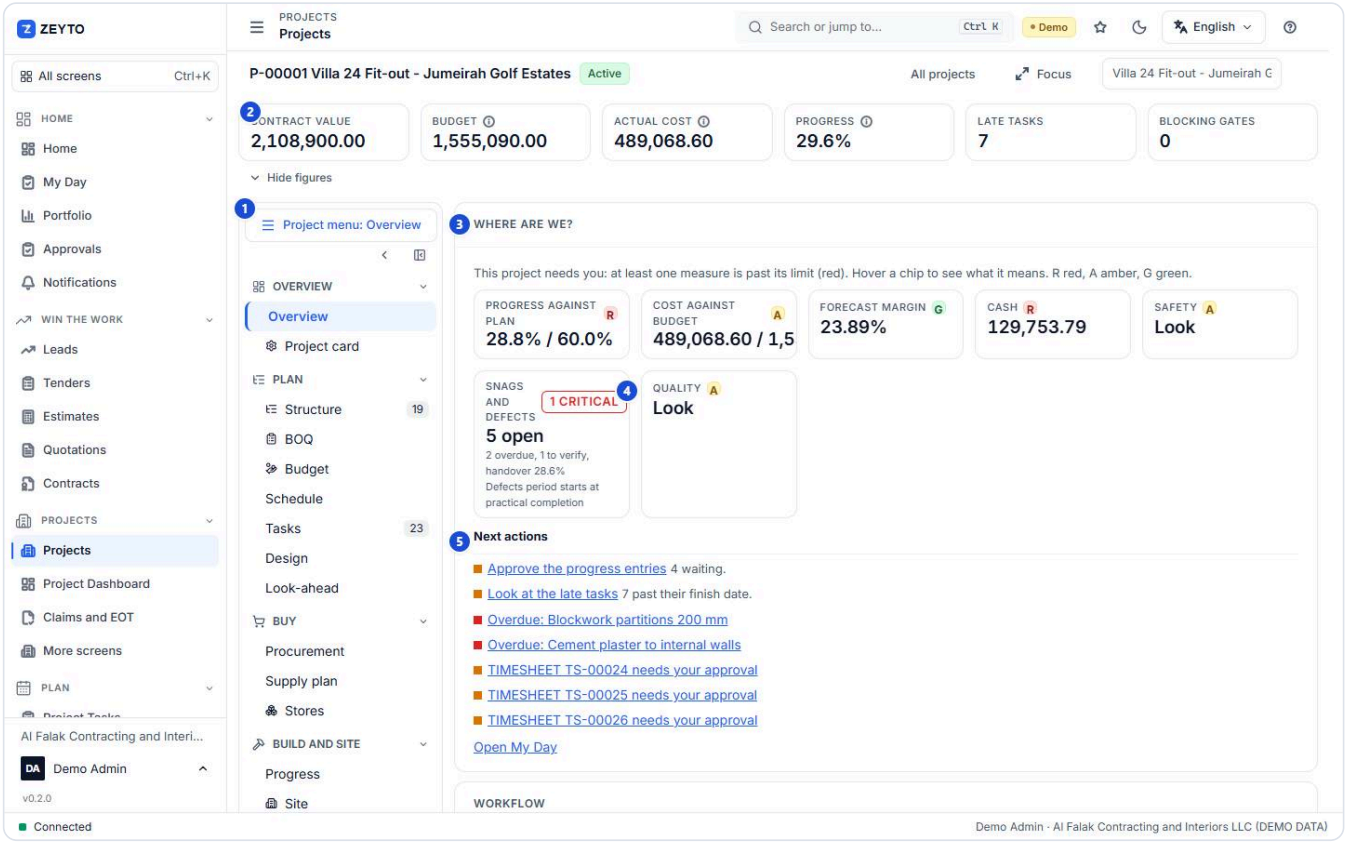
4. Setting up the project: structure, BOQ, budget and schedule

A project is the container for everything that follows. You create it from the won tender or contract, give it a work breakdown, a priced BOQ, a budget and a schedule, and from then on every cost and every bill carries its name.

The project hub

Open `Projects ▸ Projects` and open a project. The hub groups its tabs by the question you are asking. The tab keys in the code are shown in brackets.

TAB GROUP	TABS INSIDE	QUESTION IT ANSWERS
Overview	overview, card	Where does this project stand today?
Plan	structure, boq, budget, schedule, tasks, design, lookahead	What are we building, at what price and cost, and when?
Buy	procurement, supply, stores	What have we asked for, ordered and received?
Build and Site	progress, site, production	How much of each item of work is done?
Bill and Cash	billing, finance	What have we billed, collected and held back?
People	people	Who works on it?
Reports	reports, tools	Margin, WIP and the other project reports
Close-out	closeout	What stops us closing the project?

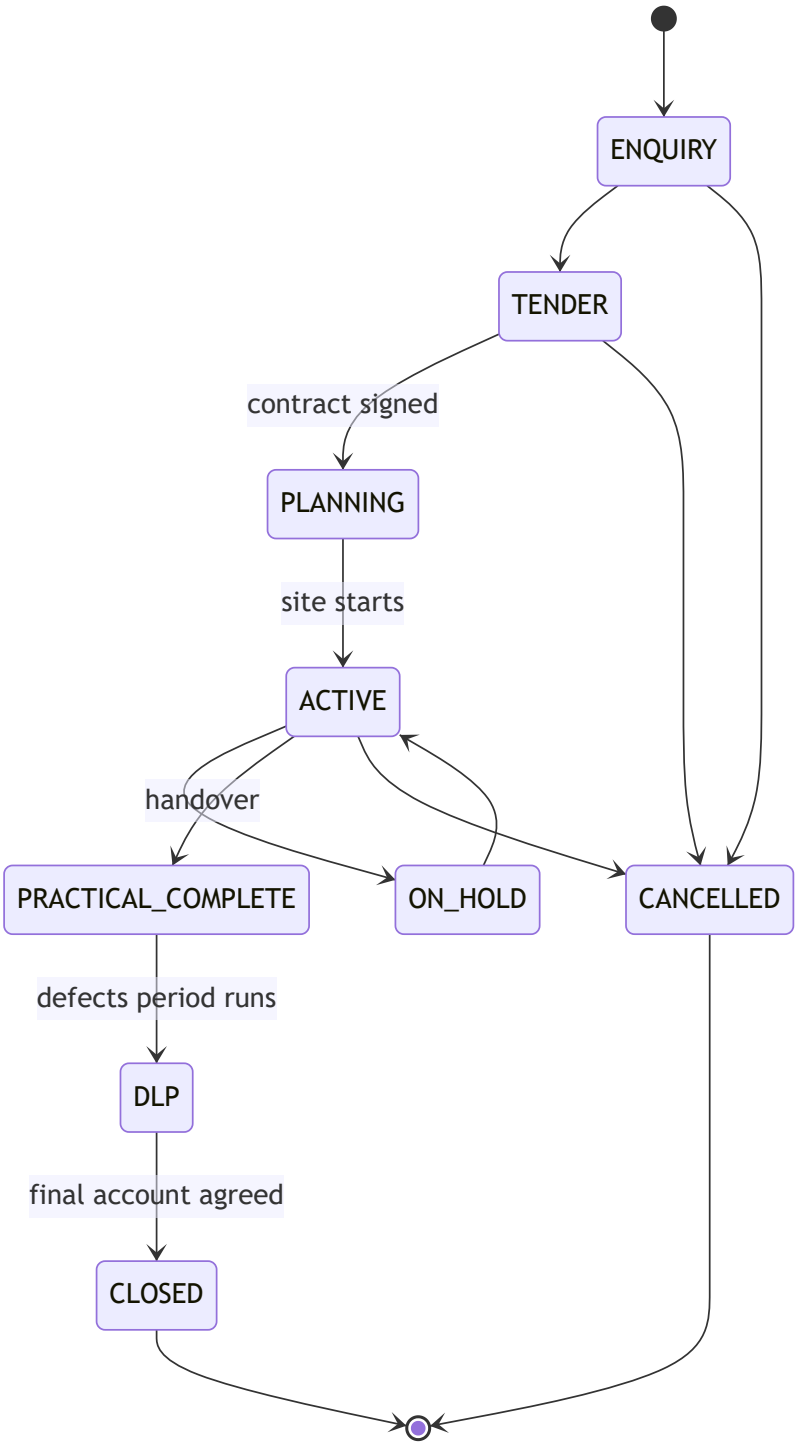


The project Overview. Villa 24 shows Active, contract 2,108,900.00, budget 1,555,090.00, actual cost 489,068.60, progress 29.6 percent, 7 late tasks and 0 blocking gates.

1. The project menu: Overview, Project card, Plan, Buy, Build and Site, and the rest of the tab groups.
2. Key figures: contract value, budget, actual cost, progress, late tasks and blocking gates.
3. Where are we: progress against plan (28.8 percent against 60.0, red), cost against budget (amber), forecast margin (23.89 percent, green), cash (red), safety and quality. Hover a chip to see what it means.

4. Snags and defects: 5 open, 2 overdue, 1 to verify, with a red "1 CRITICAL" chip.
5. Next actions, each a link: approve the progress entries, look at the late tasks, overdue items and timesheets that need approval.

The project lifecycle



Project states. The nine values the database allows are ENQUIRY, TENDER, PLANNING, ACTIVE, ON_HOLD, PRACTICAL_COMPLETE, DLP, CLOSED and CANCELLED. PRACTICAL_COMPLETE is the day the client takes the building; DLP is the defects liability period (12 months in the Villa 24 contract) during which you fix snags and the client still holds part of the retention. The demo company keeps projects in several of these states, including one closed and archived project, so you can open each one.

The database only restricts the set of values. Which move a user may make, and who may make it, is decided by the screen and by the permissions, so treat the arrows as the normal order and not as a list of every allowed jump.

Structure, BOQ and budget

- **Structure (WBS).** The work breakdown is a tree of nodes (`sharp_wbs_node`). Groups hold leaves; the leaves are the items of work that carry quantity, unit and rate.
- **BOQ.** The bill of quantities is the priced list of the leaves. It has versions (`sharp_boq_version`) and snapshots (`sharp_boq_snapshot`), and approving it needs `sharp.boq.approve` . The contract value is the sum of the BOQ amounts as you agreed them with the client. On the BOQ tab the first version, V1 Tender BOQ, shows as Locked and a New version button starts the next one.
- **Budget.** Your own expected cost per node (`sharp_budget_version` , `sharp_node_budget`). The difference between the BOQ price and the budget is the planned margin. The Budget tab splits it by cost nature (Material, Labour, Machines, Subcontract, Third-party, Other) and says "An approved budget is never edited: start a revision."
- **Schedule.** Tasks (`sharp_task`) with dates and dependencies, plus a baseline (`sharp_baseline`) you can compare against. `Plan ▸ Schedule and Views` shows the Gantt chart and `Plan ▸ Map` shows projects on a map. The schedule page offers the views Gantt, Network diagram, Structure chart, Resource load, S-curve, Calendar, Board and Look-ahead.

REAL EXAMPLE

Villa 24: the contract and its fourteen items of work

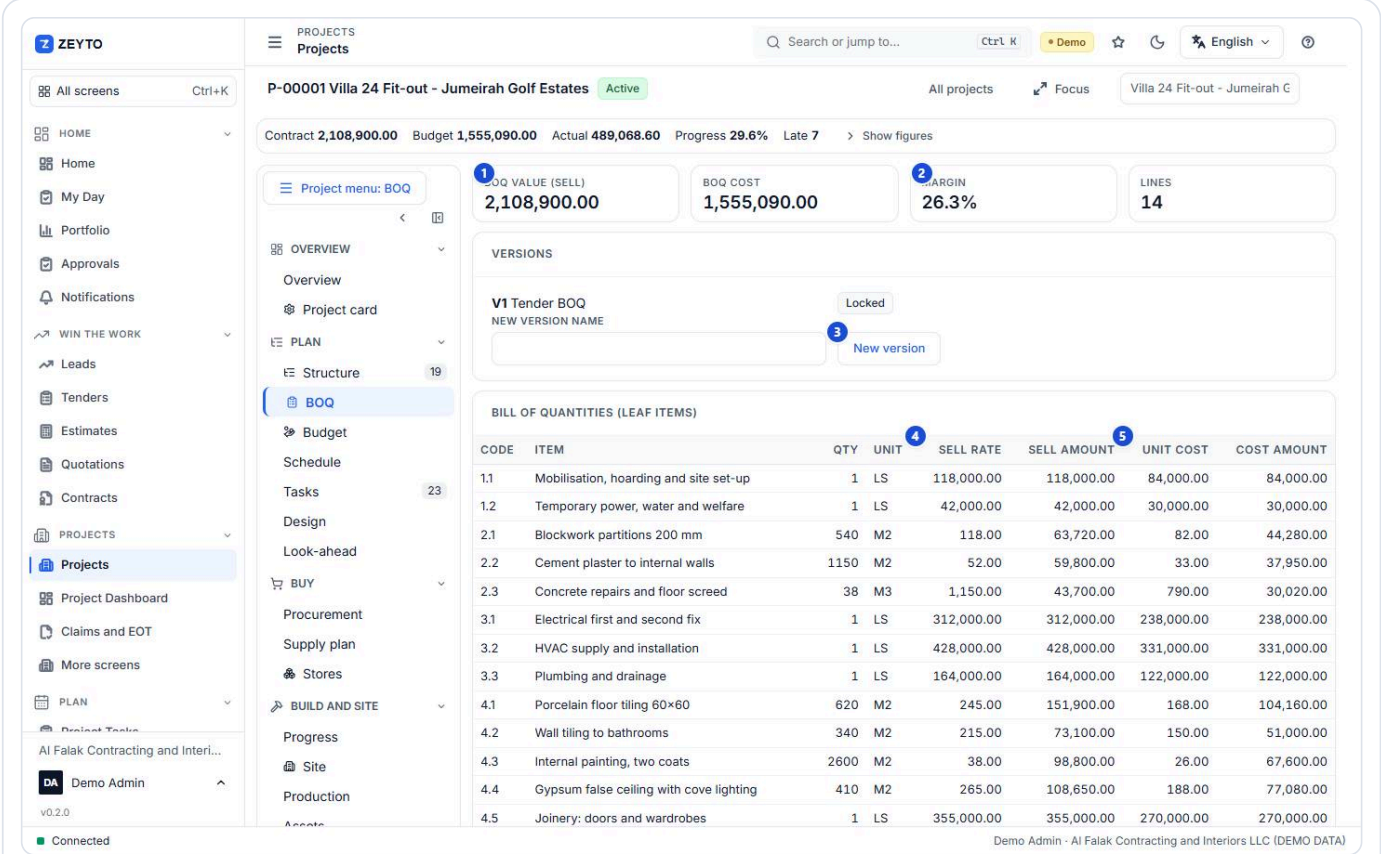
The demo company is **Al Falak Contracting and Interiors LLC (DEMO DATA)**. Its first project, Villa 24 (P-00001), has a contract of **AED 2,108,900.00** split into five groups and fourteen leaves. These are the seed script's own quantities and rates, and the item names and unit costs below are the ones the BOQ tab shows (figure further down). Sell amount minus cost amount gives the BOQ margin of 553,810.00, which the tab shows as 26.3 percent.

LEAF	ITEM OF WORK	UNIT	QUANTITY	SELL RATE	SELL AMOUNT	UNIT COST	COST AMOUNT
1.1	Mobilisation, hoarding and site set-up	LS	1	118,000.00	118,000.00	84,000.00	84,000.00
1.2	Temporary power, water and welfare	LS	1	42,000.00	42,000.00	30,000.00	30,000.00
2.1	Blockwork partitions 200 mm	M2	540	118.00	63,720.00	82.00	44,280.00
2.2	Cement plaster to internal walls	M2	1,150	52.00	59,800.00	33.00	37,950.00
2.3	Concrete repairs and floor screed	M3	38	1,150.00	43,700.00	790.00	30,020.00
3.1	Electrical first and second fix	LS	1	312,000.00	312,000.00	238,000.00	238,000.00
3.2	HVAC supply and installation	LS	1	428,000.00	428,000.00	331,000.00	331,000.00
3.3	Plumbing and drainage	LS	1	164,000.00	164,000.00	122,000.00	122,000.00
4.1	Porcelain floor tiling 60×60	M2	620	245.00	151,900.00	168.00	104,160.00
4.2	Wall tiling to bathrooms	M2	340	215.00	73,100.00	150.00	51,000.00
4.3	Internal painting, two coats	M2	2,600	38.00	98,800.00	26.00	67,600.00

LEAF	ITEM OF WORK	UNIT	QUANTITY	SELL RATE	SELL AMOUNT	UNIT COST	COST AMOUNT
4.4	Gypsum false ceiling with cove lighting	M2	410	265.00	108,650.00	188.00	77,080.00
4.5	Joinery: doors and wardrobes	LS	1	355,000.00	355,000.00	270,000.00	270,000.00
5.1	External works, landscaping and handover	LS	1	90,230.00	90,230.00	68,000.00	68,000.00
	Contract value and BOQ cost				**2,108,900.00**		**1,555,090.00**

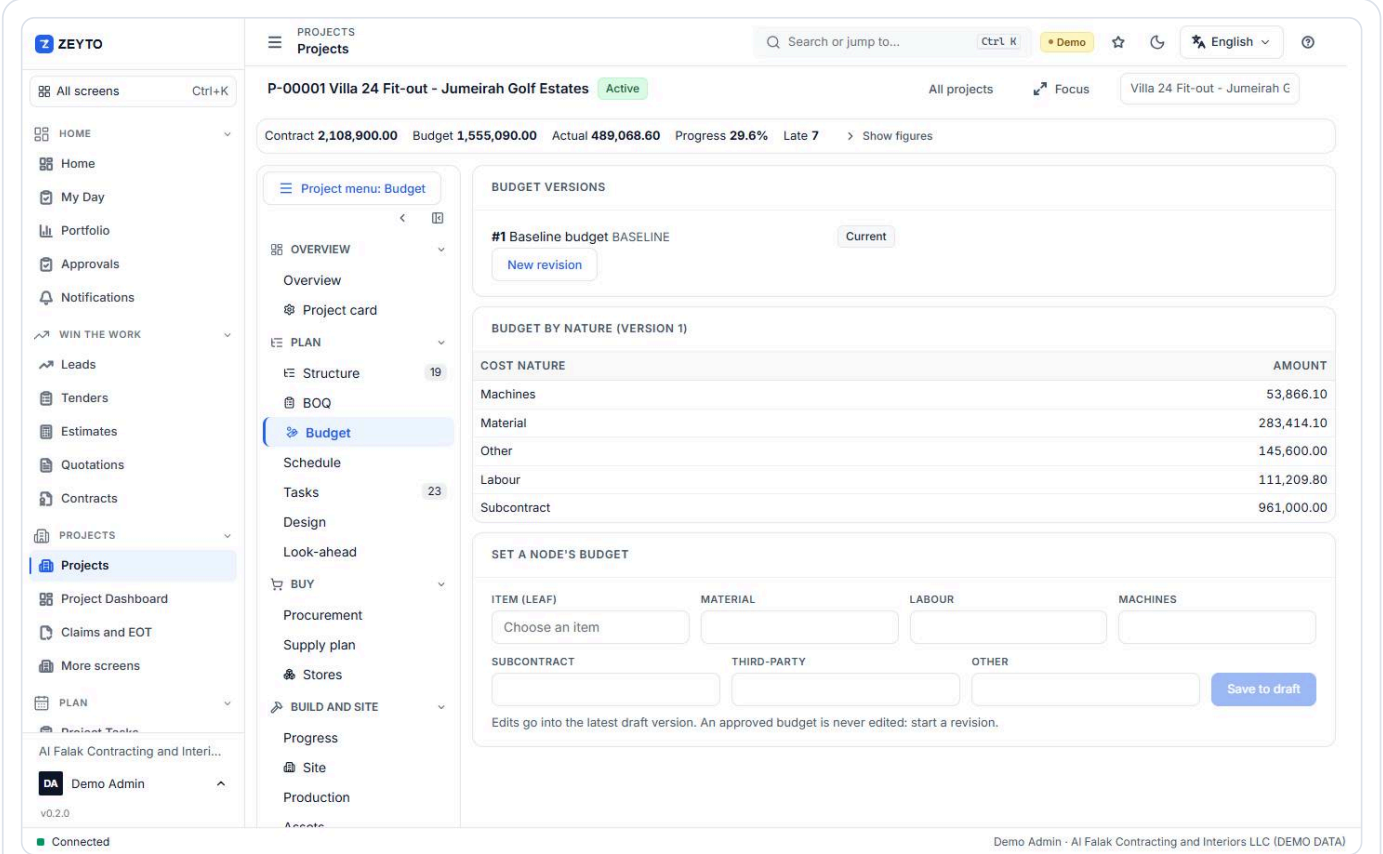
Cost by group is not shown here. The sell totals by group are 160,000.00 (group 1), 167,220.00 (group 2), 904,000.00 (group 3), 787,450.00 (group 4) and 90,230.00 (group 5), and they add up to the contract value. The contract terms are in the next table.

TERM	VILLA 24 VALUE	WHAT IT DOES
Advance	10 percent, on the GROSS basis	Recovered from each bill as 10 percent of the bill's gross amount
Retention	5 percent, capped at 5 percent of the contract value	Held back from each bill until release
Release	50 percent at practical completion, defects period 12 months	Half of the retention comes back at handover, the rest after the defects period
Payment	30 days	Due date of each invoice
Liquidated damages	0.05 percent per day, capped at 10 percent	Charge for late completion
Client reference	AR-V24-2026	The client's own contract number
Revenue method	B	Billings go to Contract Billings 2310; revenue is recognised by the month-end revenue run



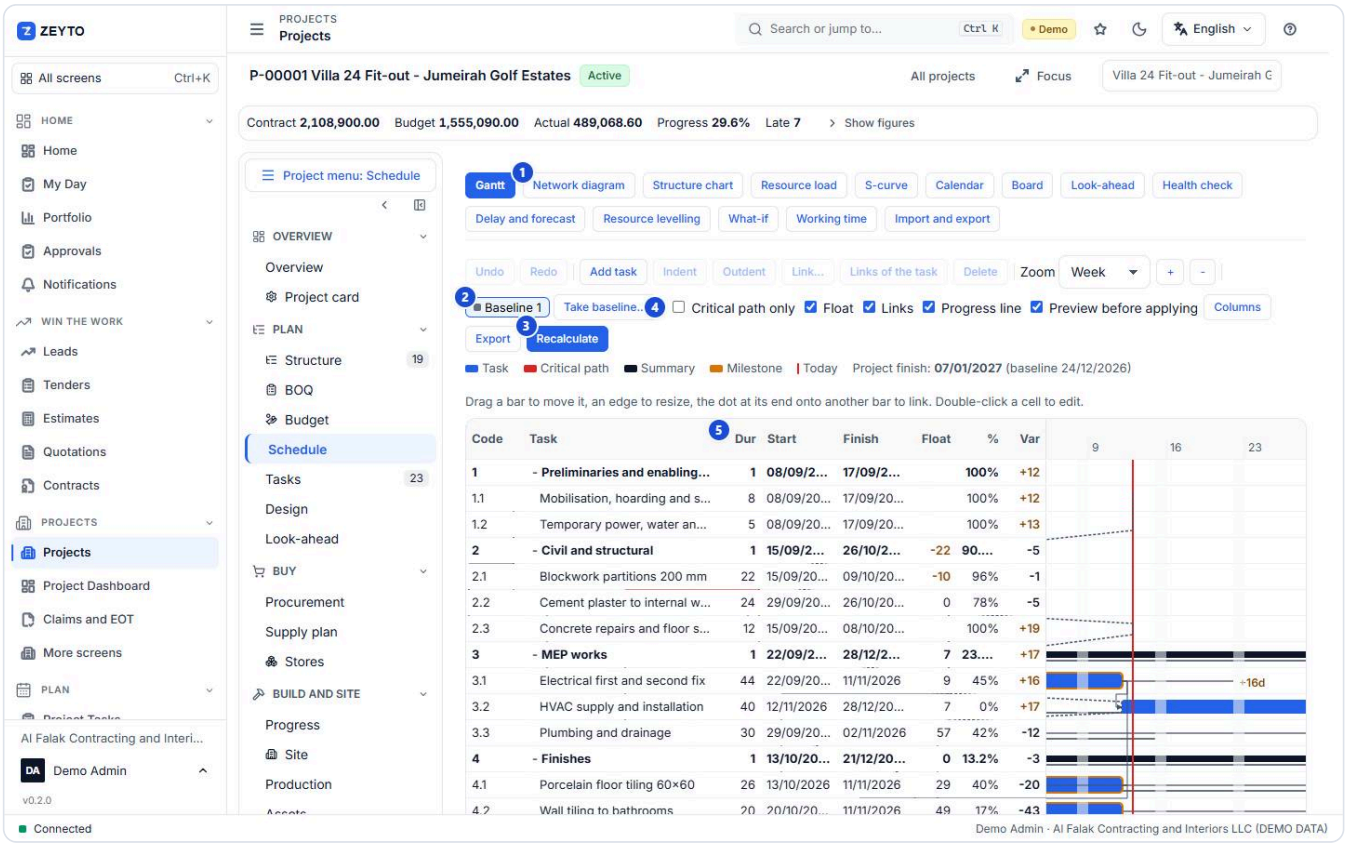
The BOQ tab. BOQ value (sell) 2,108,900.00, BOQ cost 1,555,090.00, margin 26.3 percent, 14 lines. Version V1 Tender BOQ is Locked.

1. BOQ value (sell): the price the client pays for the whole bill of quantities.
2. Margin: sell value against the cost of the BOQ.
3. Versions: V1 is locked and a new version is started with the name box and the New version button.
4. Item lines: code, item, quantity, unit and sell rate.
5. Cost columns: unit cost and cost amount, the base for the margin.



The Budget tab. Budget version #1 "Baseline budget" is Current. By cost nature it holds Machines 53,866.10, Material 283,414.10, Other 145,600.00, Labour 111,209.80 and Subcontract 961,000.00. Those five add up to 1,555,090.00, the same as the BOQ cost. The form below sets a node's budget under Material, Labour, Machines, Subcontract, Third-party and Other.

1. **Create the project.** Open `Projects ▸ Projects` and start a new project. Pick the client, the project manager and the contract. The project carries a project centre so that every voucher can be tagged with it.
2. **Build the structure.** In the Plan group, add the groups and leaves of the work breakdown. Give each leaf a unit, quantity and rate.
3. **Approve the BOQ.** A user with `sharp.boq.approve` approves the BOQ version so that the contract lines and the BOQ agree.
4. **Enter the budget.** Add your expected cost per node. This is what the margin report compares real cost against.
5. **Plan the work.** Add tasks and dependencies under Schedule and Tasks, and save a baseline so that later slippage shows.
6. **Move the project to ACTIVE** when the site starts. Before that, the project is in PLANNING.



The Gantt chart. The page says "Project finish: 07/01/2027 (baseline 24/12/2026)", which is 14 days later than the baseline. The Var column shows each task's variance against it.

1. The schedule views: Gantt, Network diagram, Structure chart, Resource load, S-curve, Calendar, Board, Look-ahead, Health check and more.
2. Baseline: "Baseline 1" is the saved plan that progress is compared with. Take baseline saves a new one.
3. Recalculate works out dates and the critical path again.
4. Critical path only, with Float, Links and Progress line ticks.
5. The task table: duration, start, finish, float, percent done and variance.

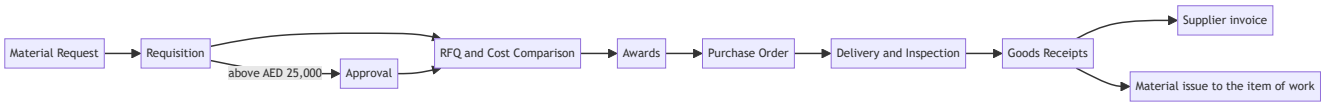
CHECK THIS BY EYE

The product does not compare the BOQ total with the contract value. If someone edits a rate after the contract is signed, the two can drift apart and nothing stops it. After any BOQ change, open the contract and the BOQ side by side and confirm that both read AED 2,108,900.00 (or your own contract value).

> Source: `src/Zeyto.Web/src/screens/sharp/SharpProjectHub.tsx`, `tools/demo-seed/lib/projects.mjs`, `tools/demo-seed/lib/story.mjs`, the `status` check constraint of `sharp_project` in the `9*sharp*.sql` migrations, `docs/sharp/user-guide-workflow.md` (stage 4)

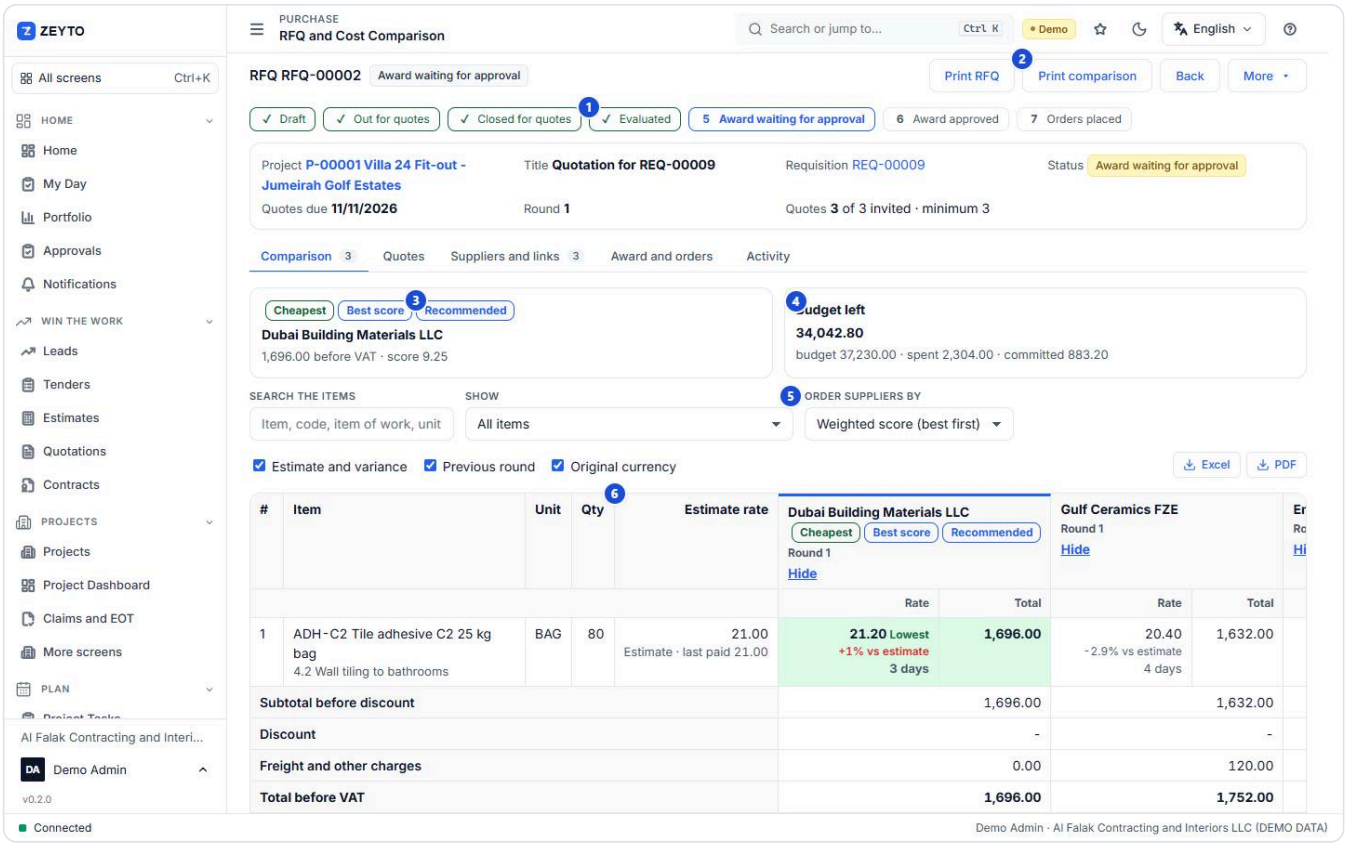
5. Buying: from a site need to a supplier invoice

A construction purchase starts with a need on site and ends with a supplier bill that has been matched to what was actually delivered. In between, Sharp makes you ask for competing prices, record the choice, order, inspect on arrival, receive into a store, and issue to the item of work that will use it.



The buying chain. The menu names are the ones under the Purchase group. A requisition above AED 25,000 waits for approval before it can go to RFQ. A purchase order from AED 25,000 is approved too. The goods receipt is the controlled path: it takes the counted, inspected quantity. A receipt typed straight into Goods Receipts skips the count and the inspection, so use it only for the exceptions.

1. **Raise the need.** Open `Purchase ▸ Material Requests` and record what the site needs, for which project and item of work. The demo company holds nine material requests (MR-00001 to MR-00009).
2. **Convert to a requisition.** Open `Purchase ▸ Requisitions`. Above AED 25,000 the approval rule holds it for a user with the right to approve.
3. **Ask for prices.** Open `Purchase ▸ RFQ and Cost Comparison`. An RFQ goes to several vendors (`sharp_rfq_vendor`), each answers with a quote (`sharp_quote`), and the screen lays the quotes side by side. In the demo RFQ-00001 has been ordered and RFQ-00002 has its award waiting for approval.
4. **Record the award.** Open `Purchase ▸ Awards` and pick the winning vendor (`sharp_rfq_award`). The award is the record of why you chose that vendor.
5. **Order.** Open `Purchase ▸ Purchase Order`. The seeded demo company holds sixteen purchase orders, PO-FY202600001 to PO-FY202600016, all Submitted. The list also has an LPO date column.
6. **Inspect the delivery.** Open `Purchase ▸ Delivery and Inspection` (`sharp_delivery`) and record what arrived, what you accepted and what you reject.
7. **Receive.** Open `Purchase ▸ Goods Receipts` and receive the accepted goods from the decided inspection.
8. **Enter the supplier invoice.** When the supplier's bill arrives, the Purchase Invoice is matched to the order lines and cleared against the receipts that are not yet billed.



An RFQ with its comparison. RFQ-00002 is for requisition REQ-00009 on Villa 24, with 3 of 3 invited suppliers answered, and its award waits for approval. The step strip reads Draft, Out for quotes, Closed for quotes, Evaluated, Award waiting for approval, Award approved, Orders placed. Other tabs: Quotes, Suppliers and links, Award and orders, Activity.

1. The seven steps of the RFQ. The first four are ticked and step 5, Award waiting for approval, is current.
2. Print RFQ and Print comparison hand the paper to a supplier or a manager.
3. The best supplier: Dubai Building Materials LLC is Cheapest, Best score and Recommended, at 1,696.00 before VAT with a score of 9.25.
4. Budget left on the project for this material: 34,042.80, from a budget of 37,230.00, spent 2,304.00 and committed 883.20.
5. Order the suppliers by weighted score or by price.
6. The comparison: each supplier's rate and total against the estimate rate, with the percent above or below the estimate and the delivery days.

ILLUSTRATIVE FIGURES

One purchase from receipt to site issue

A supplier delivers cement for AED 20,000.00 plus 5 percent VAT. You issue AED 12,000.00 of it to an item of work. The accounts below follow the posting map in the product's workflow guide: Goods Received Not Invoiced (2151) is the bridge between the receipt and the bill.

STEP AND ACCOUNT	DR	CR
Goods receipt. 1300 Inventory	20,000.00	
2151 Goods Received Not Invoiced		20,000.00
Supplier invoice. 2151 Goods Received Not Invoiced	20,000.00	
1400 VAT Input	1,000.00	
2100 Trade Payables		21,000.00
Material issue (MI-). 5300 project material cost	12,000.00	
1300 Inventory		12,000.00
Total of the three entries	**53,000.00**	**53,000.00**

After the three entries, 8,000.00 of cement is still in stock, 21,000.00 is owed to the supplier, Goods Received Not Invoiced is back to zero, and the project carries 12,000.00 of material cost against the item of work that used it. If the invoice arrives before the goods, the cost cannot be recognised twice: the bill clears what the receipt raised.

Subcontracts

Work you do not do yourself goes to a subcontractor under a subcontract (`sharp_subcontract`) with its own items (`sharp_sc_item`). A subcontract moves through DRAFT, ACTIVE, COMPLETE, CLOSED and TERMINATED, and the approval rule applies from AED 50,000. The demo company's Villa 24 has three, all priced under your own BOQ line so you can see the margin you keep.

SUBCONTRACT	SCOPE	BOQ LEAF AND PRICE TO THE CLIENT	SUBCONTRACT VALUE	MARGIN KEPT	STATE IN THE DEMO
SUBC-00001	HVAC	3.2 at 428,000.00	331,000.00	97,000.00	Draft
SUBC-00002	Electrical	3.1 at 312,000.00	238,000.00	74,000.00	Active, two certificates billed
SUBC-00003	Plumbing	3.3 at 164,000.00	122,000.00	42,000.00	Active, two certificates billed

The margin column is the BOQ price minus the subcontract value. It is a planning figure; the product reports the real margin from posted cost. Retention on the demo subcontracts is 10 percent with a 5 percent cap. How a subcontractor is certified and paid is in section 9.

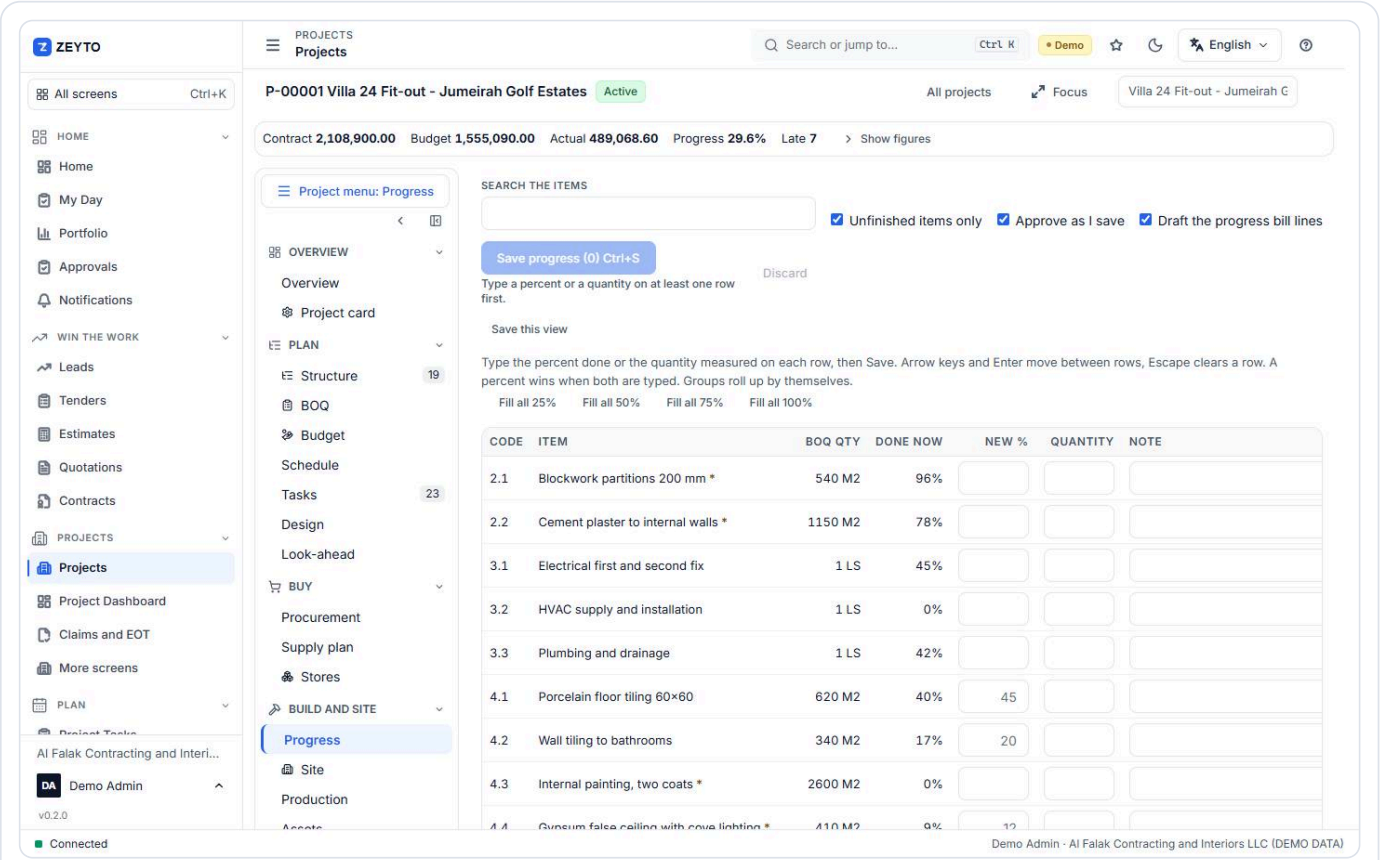
> Source: `docs/sharp/user-guide-workflow.md` (stages 5 and 6 and the posting table), `src/Zeyto.Web/src/nav.ts` , `tools/demo-seed/lib/story-kit.mjs` , `tools/demo-seed/lib/story.mjs` , the `sharp_rfq` , `sharp_quote` , `sharp_delivery` , `sharp_subcontract` tables in the `9*sharp*.sql` migrations

6. On site: progress, labour, hours and equipment

The site records the facts that the office then bills and costs. The most important of them is physical progress: how many percent of each item of work is done. Billing is capped by it, so site discipline protects cash flow.

Progress

The site engineer enters the percentage complete per leaf in the Build and Site group of the project hub (Progress). On the Progress tab you type a percent or a quantity on each row and save. Three ticks sit beside the search box: Unfinished items only, Approve as I save and Draft the progress bill lines. A project manager with `sharp.progress.approve` approves it. When the QS later prepares a progress bill, the product refuses a bill whose percentages go beyond the approved progress and answers `BILL_EXCEEDS_PROGRESS`. The fix is never to override the bill; it is to get the progress recorded and approved first.



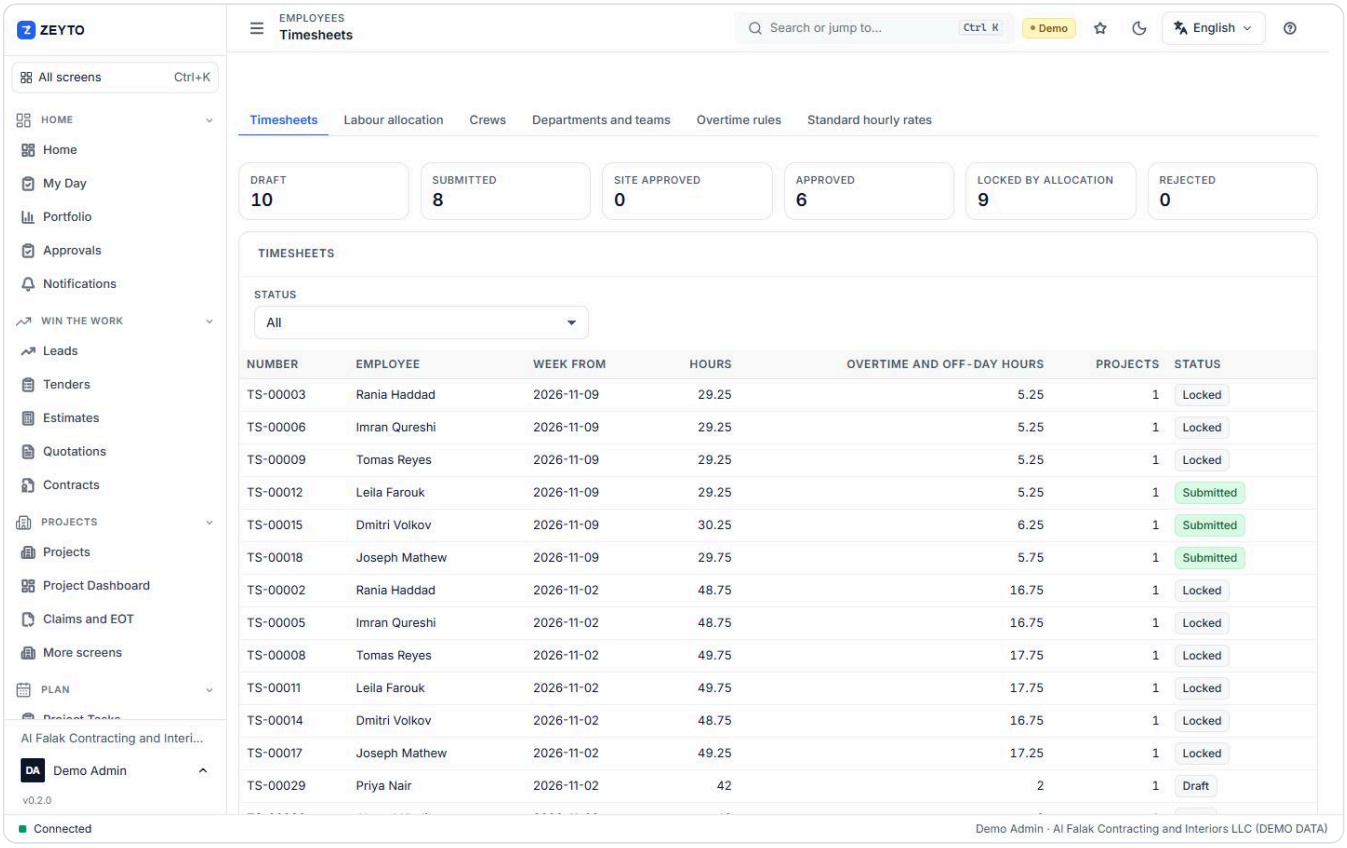
The Progress tab. The page says "Type the percent done or the quantity measured on each row, then Save." Done now shows the approved progress of each item (2.1 at 96 percent, 2.2 at 78 percent, 3.1 at 45 percent). The three ticks are Unfinished items only, Approve as I save and Draft the progress bill lines.

Sites, check-in, timesheets and labour

- **Sites.** `Build and Site ▸ Sites` lists the places people work. People check in at a site (`sharp_checkin`). The demo company has SITE-V24 and SITE-YARD.
- **Timesheets.** `Employees ▸ Timesheets` holds hours per employee per day, split across projects and items of work (`sharp_timesheet`, `sharp_timesheet_line`). A timesheet is approved by a user with `sharp.timesheet.approve`. The demo company has 33 timesheets: 10 Draft, 8 Submitted, 6 Approved and 9 Locked by allocation (the screen also counts Site approved and Rejected, both 0). Around the Timesheets tab sit the tabs Labour allocation, Crews, Departments and teams, Overtime rules and Standard hourly rates.
- **Labour allocation.** A user with `sharp.labour.allocate` runs the allocation (`sharp_labour_alloc_run`, `sharp_labour_alloc_line`). It prices the approved hours at the approved payroll rate, or at a standard rate where no

payroll exists yet, and moves the cost to the projects: debit 5310 Project Direct Labour, credit 6190 Labour Cost Absorbed.

- **Plant and equipment.** `Assets ▸ Assets` holds the plant register (AST-00001 and up in the demo). Use is charged to the project as plant cost; the seed books it to account 5340.
- **Other site records.** Permits to Work, Incidents, Toolbox Talks, Transfers Between Sites, Site Gate, Inspection Templates, Non-conformance Reports, Supplier Returns and Supplier Claims sit under the Build and Site group and keep the safety and quality trail.



Timesheets. The counters read Draft 10, Submitted 8, Site approved 0, Approved 6, Locked by allocation 9, Rejected 0. Each row is one employee and one week, with hours, overtime and off-day hours, and the number of projects. Dates on this page are written 2026-11-09.

REAL EXAMPLE

Own labour and plant booked to Villa 24 in the demo company

The demo seed books the cost of the company's own crews, plant and site overheads as manual journals that carry the project centre and the item of work. Each journal debits the cost account and credits 2400 (the seed's accrual account). In a live company the timesheet allocation and the plant charge-out do the same job automatically; the seed uses journals because it has no real hours to allocate. The amounts below are the seed's.

JOURNAL	ITEM OF WORK	ACCOUNT	NARRATION	AMOUNT
V24-PRE	1.1 Mobilisation	5360	Site supervision, hoarding and welfare set-up	67,200.00
V24-PRE	1.1 Mobilisation	5340	Crane, hoist and site vehicles charge-out	16,800.00
V24-TMP	1.2 Temporary power	5360	Temporary power, water and welfare running cost	22,500.00
V24-BLK	2.1 Blockwork	5310	Blockwork crew, hours allocated	14,800.00
V24-BLK	2.1 Blockwork	5340	Scaffold and mixer charge-out	6,000.00
V24-PLS	2.2 Plaster	5310	Plaster crew, hours allocated	20,500.00
V24-PLS	2.2 Plaster	5340	Mixer and scaffold charge-out	5,400.00
V24-SCR	2.3 Concrete repairs	5310	Repair and screed crew, hours allocated	22,000.00
V24-SCR	2.3 Concrete repairs	5340	Floor grinder and mixer charge-out	5,700.00
V24-TIL	4.1 Floor tiling	5310	Tiling crew, hours allocated	22,000.00
V24-TIL	4.1 Floor tiling	5340	Tile saws and mixer charge-out	3,500.00
V24-TIL	4.1 Floor tiling	5360	Spacers, levelling clips and consumables	5,000.00
V24-WTL	4.2 Wall tiling	5310	Tiling crew, bathrooms, hours allocated	5,200.00
Total debited to Villa 24 (credited to 2400)				**216,600.00**

The totals by item of work are 84,000.00 for 1.1, 22,500.00 for 1.2, 20,800.00 for 2.1, 25,900.00 for 2.2, 27,700.00 for 2.3, 30,500.00 for 4.1 and 5,200.00 for 4.2. Compare each against the BOQ price from section 4: blockwork was priced at 63,720.00 and its own labour and plant cost 20,800.00, before any material.

ILLUSTRATIVE FIGURES

A labour allocation for one week

Four approved timesheets for a plaster crew add up to 160 hours on Villa 24 item 2.2, and the standard rate is AED 15.00 an hour. The allocation posts as below. Nothing is paid to anyone by this entry: it moves wage cost that payroll books elsewhere onto the project.

ACCOUNT	DR	CR
5310 Project Direct Labour (Villa 24, item 2.2)	2,400.00	
6190 Labour Cost Absorbed		2,400.00
Total	**2,400.00**	**2,400.00**

160 hours at 15.00 is 2,400.00. The product's own message describes this entry as moving the project share of payroll from 6190 to 5310. If an employee has no pay rate row, the standard-rate allocation skips that person with the reason NO_STANDARD_RATE, so add the pay rate first.

TIP

Approve timesheets before you run the allocation, which works from the approved hours. Until payroll is allocated nothing reaches the project's accounts, so a project can look better than it is. The demo company has ten draft timesheets to practise on, and a timesheet that an allocation has used shows as Locked by allocation.

Not verified in code: the exact on-screen button labels of the progress entry and allocation screens. The section describes the permissions and the posting from the API and the guide.

> Source: `docs/sharp/user-guide-workflow.md` (stages 7 and 11), `src/Zeyto.Edge/Api/Sharp/SharpBillingApi.cs` (progress cap), `tools/demo-seed/lib/story.mjs`, `tools/demo-seed/lib/story-kit.mjs` (`bookCost`), the `sharp_timesheet`, `sharp_labour_alloc_run` and `sharp_checkin` tables in the `9*sharp*.sql` migrations

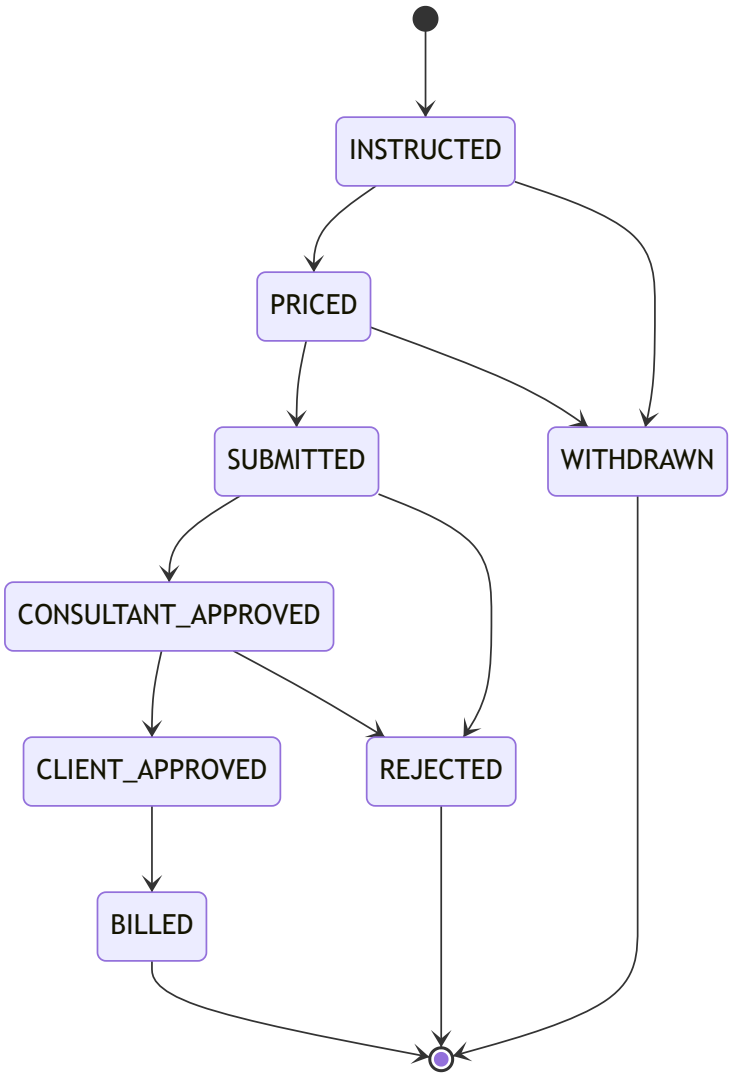
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7. Change: variations, delay events and claims for extension of time

No building is built to the drawing it was priced from. The client adds a pantry, the approvals arrive late, the lift permit is delayed. Sharp separates two kinds of change so that each gets its own record and its own bill: a **variation** changes what you build and what it costs, and a **claim** asks the client for more time and sometimes for the cost of the delay.

Variation orders

A variation order (`Sales ▸ Variation Orders`, table `sharp_variation`, lines in `sharp_variation_line`) records an instructed change with its priced lines and the days it adds. Every variation goes through the approval rule. The demo company's extra rule holds any variation above AED 10,000.



Variation states. The eight values are INSTRUCTED, PRICED, SUBMITTED, CONSULTANT_APPROVED, CLIENT_APPROVED, REJECTED, WITHDRAWN and BILLED. Money that is not yet CLIENT_APPROVED is shown as pending, not as contract value, in the work-in-progress report. BILLED marks a variation that has been billed.

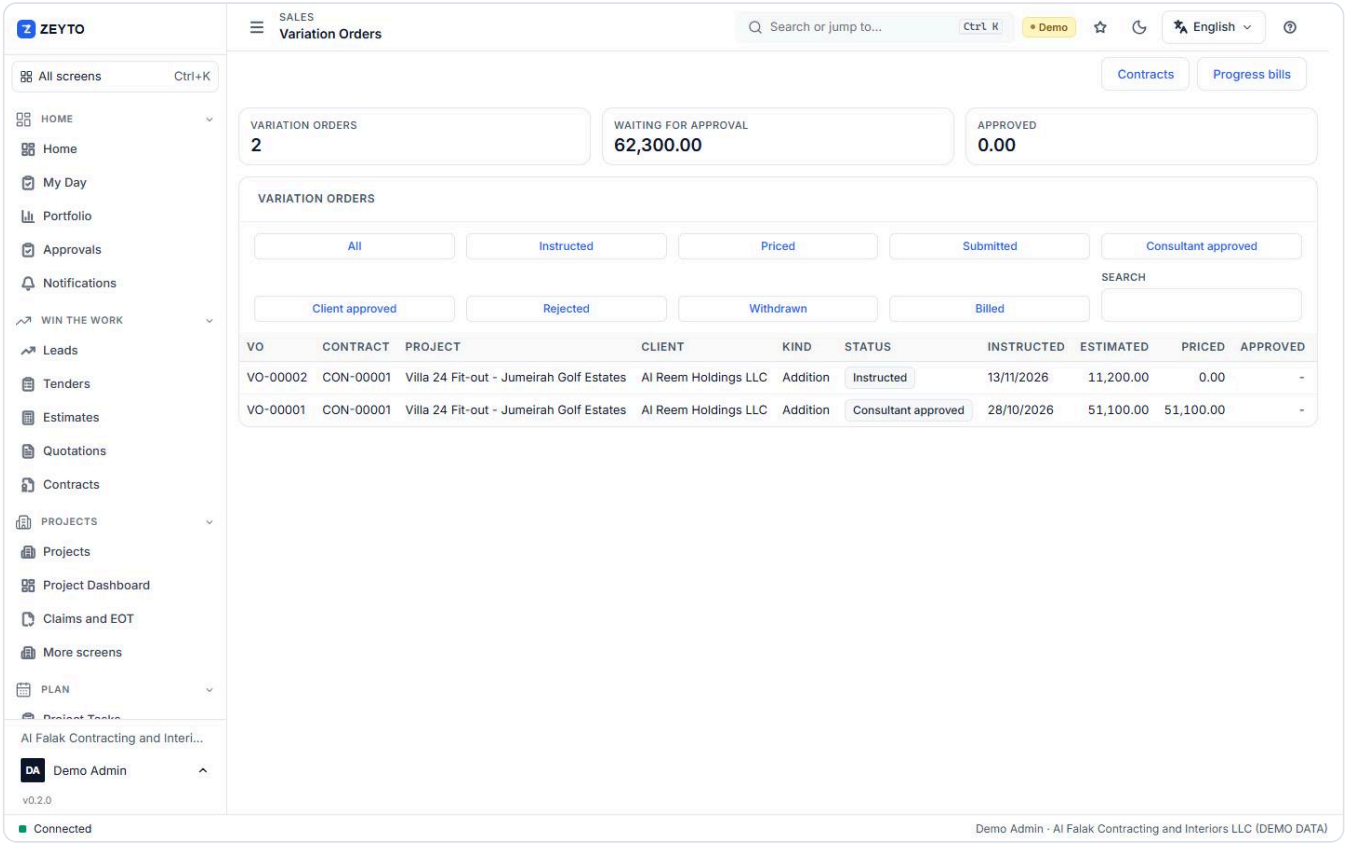
REAL EXAMPLE

VO-00001 on Villa 24: waiting for the client

The demo seed raises VO-00001 as an **ADDITION** with two priced lines and five extra days. It sits at CONSULTANT_APPROVED: the consultant has agreed, the client has not. A second variation, VO-00002, is an Addition of 11,200.00 at INSTRUCTED; it is the one raised from the claim in the next part. The Variation Orders page shows both and the strip "Waiting for approval 62,300.00", which is 51,100.00 plus 11,200.00.

LINE	AMOUNT (AED)
First priced line	38,500.00
Second priced line	12,600.00
Variation value	**51,100.00**

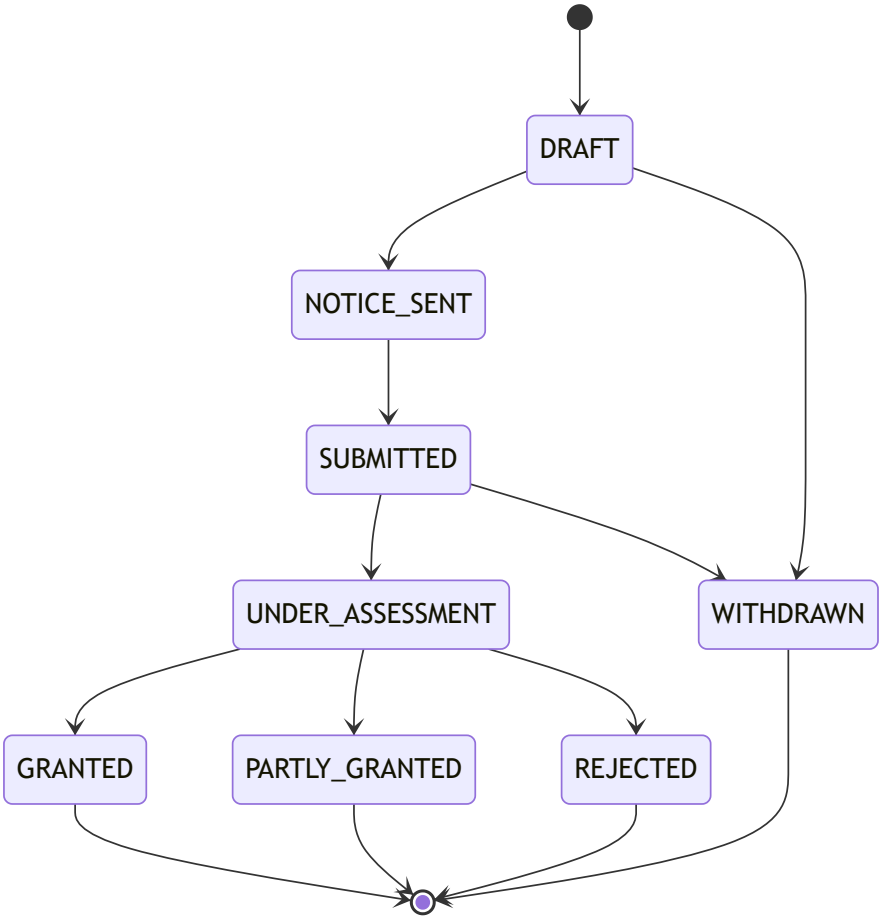
The value is above the demo's 10,000 variation rule, so it needed an approver. The contract value stays AED 2,108,900.00 until the client approves. Once the client approves and the variation is added to the current contract value, the revised value is 2,108,900.00 plus 51,100.00, which is 2,160,000.00. The retention cap is a percentage of the current contract value, so at 5 percent it would move from 105,445.00 to 108,000.00.



Variation Orders. The filter buttons are the eight states: Instructed, Priced, Submitted, Consultant approved, Client approved, Rejected, Withdrawn and Billed. VO-00001 (Addition, Consultant approved, estimated and priced 51,100.00) and VO-00002 (Addition, Instructed, estimated 11,200.00) are both on contract CON-00001.

Delay events, the clause register and claims

- **Contract Clauses** (`Projects ▸ Contract Clauses` , tables `sharp_clause` and `sharp_clause_register`) is the list of the contract's time-bar and notice clauses. Each entry has a clause reference, a category and a number of days. The demo's Villa 24 register includes clause 20.2.1 (notice of claim, category TIME_BAR, 28 days), clause 8.5 (extension of time, 28 days) and clause 13.3 (variation procedure, 14 days).
- **Delay Events** (`Projects ▸ Delay Events` , `sharp_claim_event`) records what happened and on which dates.
- **Claims and EOT** (`Projects ▸ Claims and EOT` , `sharp_client_claim`) is the formal request to the client, built on one delay event.



Claim states. The eight values are DRAFT, NOTICE_SENT, SUBMITTED, UNDER_ASSESSMENT, PARTLY_GRANTED, GRANTED, REJECTED and WITHDRAWN. NOTICE_SENT is the step that protects you: many contracts bar a claim if the notice goes out after the clause's days. That is why the clause register counts days.

1. **Record the event the day it happens.** Open `Projects ▸ Delay Events` and add the event with its dates and a short cause.
2. **Find the clause.** Open `Projects ▸ Contract Clauses` and look up the clause that governs this kind of delay. Note its notice days and count from the date you learned of the event.
3. **Open the claim.** In `Projects ▸ Claims and EOT` , start a claim on the event. Choose the claim type (the demo uses EOT_AND_COST), the days claimed, the amount claimed, a title and the clause it rests on.
4. **Send the notice and submit.** Move the claim to NOTICE_SENT, then to SUBMITTED when the full claim goes to the client. The permission family for these screens is

`sharp.claims.*`.

5. **Record the answer.** When the client or consultant replies, move the claim to GRANTED, PARTLY_GRANTED or REJECTED and enter the days and amount granted and the reference of the reply letter.

6. **Carry the result forward.** If a cost was agreed, raise a variation from the claim so it can be billed. For the time, update the programme yourself (see the warning below).

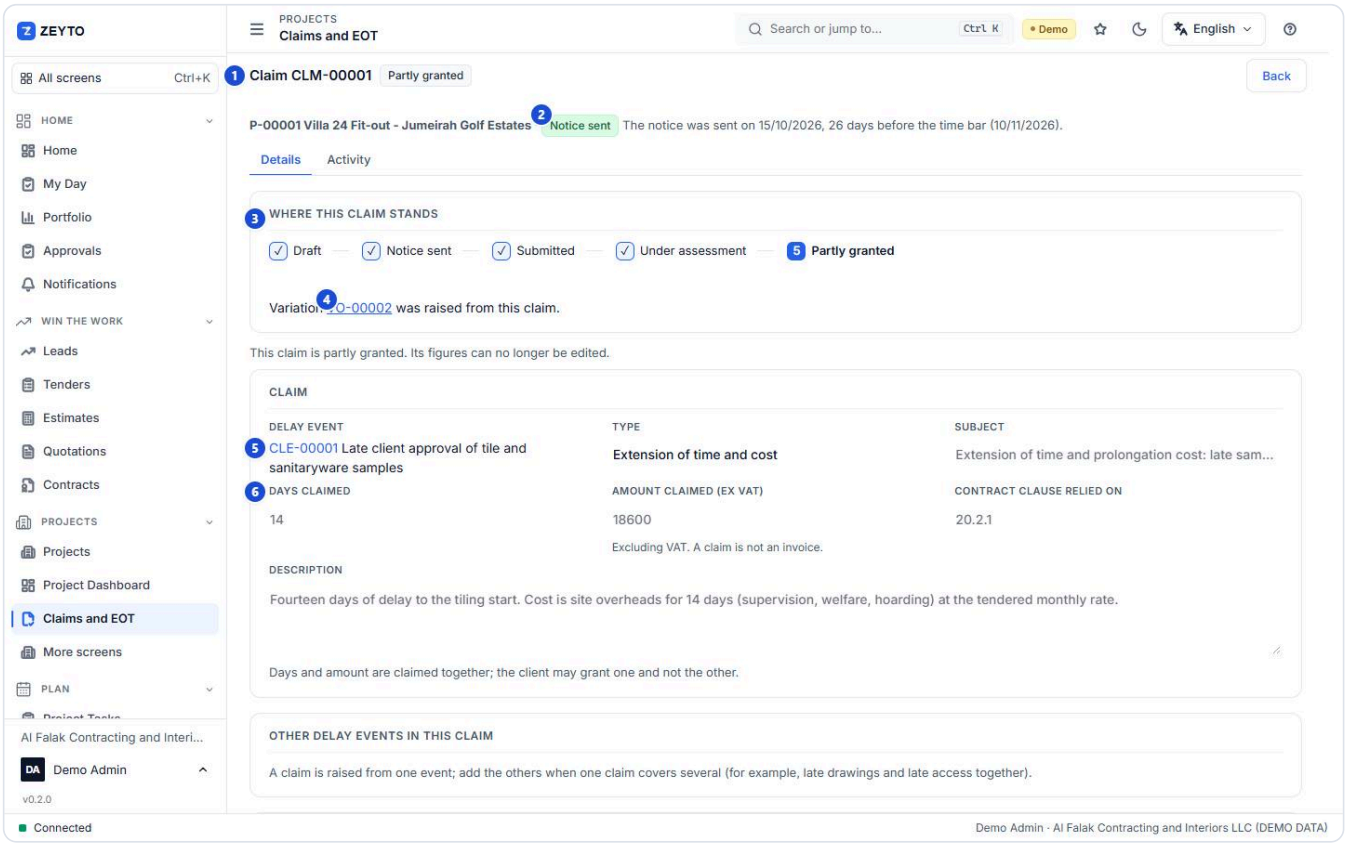
REAL EXAMPLE

Late approval of tile and sanitaryware samples

The demo seed records this story on Villa 24. The client approved the tile and sanitaryware samples 13 days late. The seed raises a delay event, then an EOT_AND_COST claim based on clause 20.2.1, and finally records the client's answer.

	DAYS	COST (AED)
Claimed	14	18,600.00
Granted (PARTLY_GRANTED, letter ENG/IE/0412)	9	11,200.00
Not granted	**5**	**7,400.00**

The shortfall is 14 minus 9 and 18,600.00 minus 11,200.00. The claim page links to the variation raised from it, VO-00002, so that the agreed cost can be billed. On that page the notice banner reads "The notice was sent on 15/10/2026, 26 days before the time bar (10/11/2026)", the amount is shown "Excluding VAT. A claim is not an invoice", and the page says "Days and amount are claimed together; the client may grant one and not the other." The demo's verification script checks this story: it requires a claim granted for 9 days and AED 11,200.00.



Claim CLM-00001. State Partly granted. The page says "This claim is partly granted. Its figures can no longer be edited."

1. Claim number and state.
2. The notice banner: "The notice was sent on 15/10/2026, 26 days before the time bar (10/11/2026)."
3. Where this claim stands: Draft, Notice sent, Submitted, Under assessment, then the client decision (here Partly granted).
4. The variation raised from the granted part: VO-00002.
5. The delay event behind the claim: CLE-00001, Late client approval of tile and sanitaryware samples.
6. Days claimed (14) and amount claimed ex VAT (18,600), with the clause relied on (20.2.1).

A GRANTED EXTENSION DOES NOT MOVE THE BASELINE

In the product as built, granting an extension of time does not change the saved schedule baseline or the task dates. After a claim is granted, move the contract completion date and the affected tasks yourself, or the Gantt chart will keep showing the project as late by the days the client has already forgiven. The demo's baseline runs about 14 days behind the plan, which is why the delay story is there.

> Source: `9999ka-sharp-claims-eot.sql`, `tools/demo-seed/lib/story.mjs`, `tools/demo-seed/verify.mjs`, `docs/sharp/user-guide-workflow.md` (stage 8), `src/Zeyto.Web/src/nav.ts`

8. Billing the client: advance, progress bills, retention and release

This is the heart of the product and the part with the most money in it. Read the rules once, then follow Villa 24 through its first bill with every number visible.

Four ways to recognise revenue

The contract carries a revenue method, set once on the contract.

METHOD	WHERE THE INVOICE CREDIT GOES	HOW REVENUE IS RECOGNISED
A	Sales 4000	Revenue equals billing. The simple case.
B	Contract Billings 2310	Month-end revenue run (`sharp_rr_run` , parameters in `sharp_rr_param`) books the revenue earned and moves it out of 2310
C	Sales 4000	Same posting as A
D	Contract Billings 2310	Same posting as B

The demo's Villa 24 uses method B, so its invoices credit 2310. The golden tests use 4000, so they exercise method A. The VAT, retention and advance logic is identical in both.

The advance

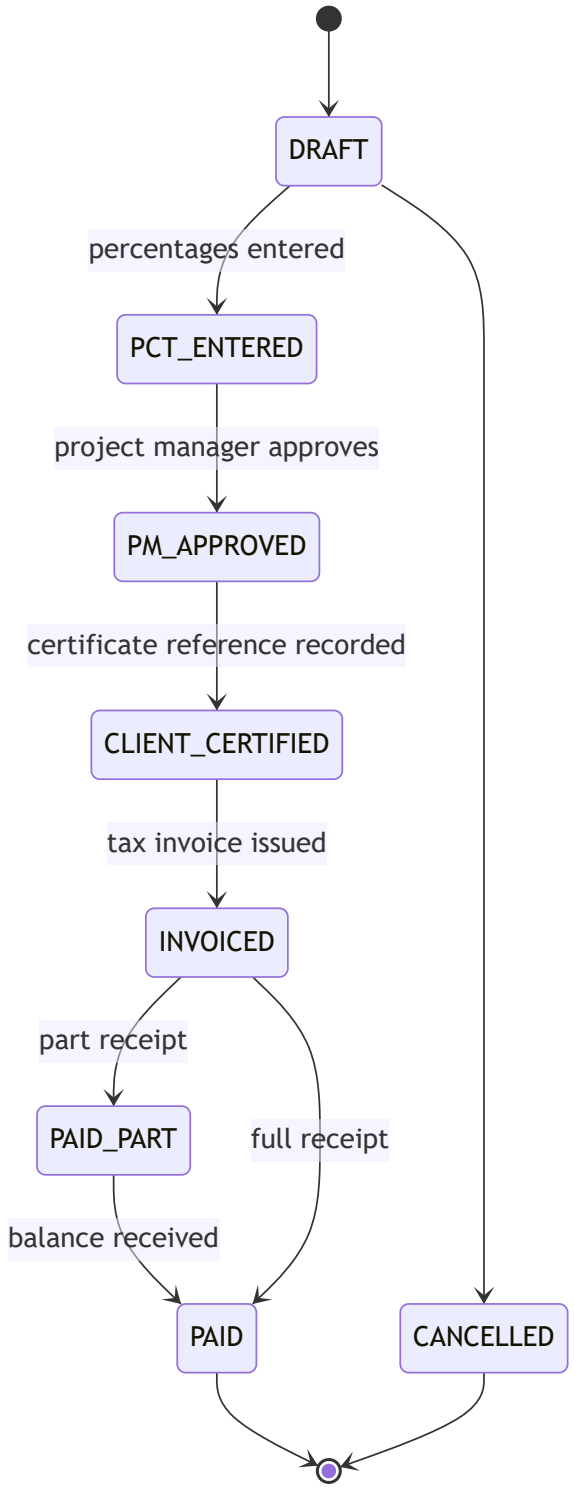
Many clients pay an advance at signing. Sharp issues an **advance tax invoice** (prefix ADV-, `Sales ▸ Advance Tax Invoices`) because UAE VAT is due when an advance is received. The advance sits in Customer Advances 2300, and every progress bill pays back a slice of it and reverses the matching slice of VAT.

REAL EXAMPLE

Villa 24 advance invoice

The advance is 10 percent of the contract value: 2,108,900.00 times 10 percent is 210,890.00. Add 5 percent VAT of 10,544.50 and the advance invoice (document ADR-FY202600001 in the demo) is 221,434.50. The advance leaves 210,890.00 in 2300 Customer Advances and 10,544.50 in 2200 VAT Output to be recovered over the bills.

The progress bill



Progress bill states. The product's status set is DRAFT, PCT_ENTERED, PM_APPROVED, CLIENT_CERTIFIED, INVOICED, PAID_PART, PAID, CANCELLED and DISPUTED. The drawing shows the normal flow; CANCELLED and DISPUTED are in the set but the screens that move a bill into them are not covered here. A bill cannot be invoiced before the client's certificate reference is on it, and only one bill per contract can be open at a time.

1. **Start the bill.** Open `Sales ▸ Progress Bills` and create the next bill for the project. You cannot open a second bill while one is still open.

2. **Enter the percentages.** For each leaf, enter the percentage for this bill (the This % column). The screen also shows Previous %, Progress % (the approved physical progress) and Cumulative %, and the product multiplies this bill's percent by the BOQ amount. A percentage above the approved physical progress is refused with `BILL_EXCEEDS_PROGRESS`.

3. **Approve inside the company.** A project manager approves the percentages (`sharp.billing.approve`). The approval rule for progress bills applies, so a different user may have to approve than the one who entered.

4. **Get the client's certificate.** Send the bill to the client or consultant. When it comes back certified, record the certificate reference (the demo's first bill carries IPC-001). The bill moves to CLIENT_CERTIFIED.

5. **Issue the invoice.** A user with `sharp.billing.invoice` issues the tax invoice from `Sales ▸ Sales Invoice`. This is the step that posts to the ledger.

6. **Collect.** Record the money in `Sales ▸ Receipts` and allocate it to the invoice. The bill moves to PAID_PART and then PAID.

The formulas the product uses

FIGURE	RULE
Gross	Sum over the leaves of this bill's slice
Retention	Gross times the retention percentage, rounded to 2 decimals, but never more than the cap percentage of the current contract value minus the retention already held
Advance recovery	The advance percentage times a basis. The basis is the gross (GROSS) or the gross minus retention (NET_OF_RETENTION). It cannot exceed the advance still held nor the gross minus retention, and the last bill recovers whatever balance is left
Taxable value	Gross minus retention
VAT on the bill	Each line times 5 percent, rounded, plus the negative VAT on the retention. Retention is not taxed now: VAT on it is declared when it is released
Invoice total	Taxable value plus that VAT
VAT reversed on the advance	The advance's VAT times the share of the advance recovered so far, minus what was reversed on earlier bills
Net receivable	Invoice total minus advance recovery minus VAT reversed minus any deductions

REAL EXAMPLE

Villa 24, bill 1: the inputs from the demo seed

The seed prepares bill 1 with these percentages, then gets it certified (certificate IPC-001), invoices it (the Billing tab lists it as PB-00001 in its Invoice column) and records a part payment. Everything else in this example was worked out from those inputs with the product's formulas above, and then matched against the Billing tab of a locally seeded demo (figure below): certified 323,072.00, retention 16,153.60, advance 32,307.20 and net due 288,341.76 all agree, and so do the advance balance of 178,582.80 and the retention held of 16,153.60.

LEAF	ITEM OF WORK	BOQ AMOUNT	PERCENT	THIS BILL
1.1	Mobilisation	118,000.00	100	118,000.00
1.2	Temporary power	42,000.00	100	42,000.00
2.1	Blockwork	63,720.00	60	38,232.00
2.2	Plaster	59,800.00	30	17,940.00
2.3	Concrete repairs	43,700.00	100	43,700.00
3.1	Electrical	312,000.00	15	46,800.00
3.3	Plumbing	164,000.00	10	16,400.00
	Gross of bill 1			**323,072.00**

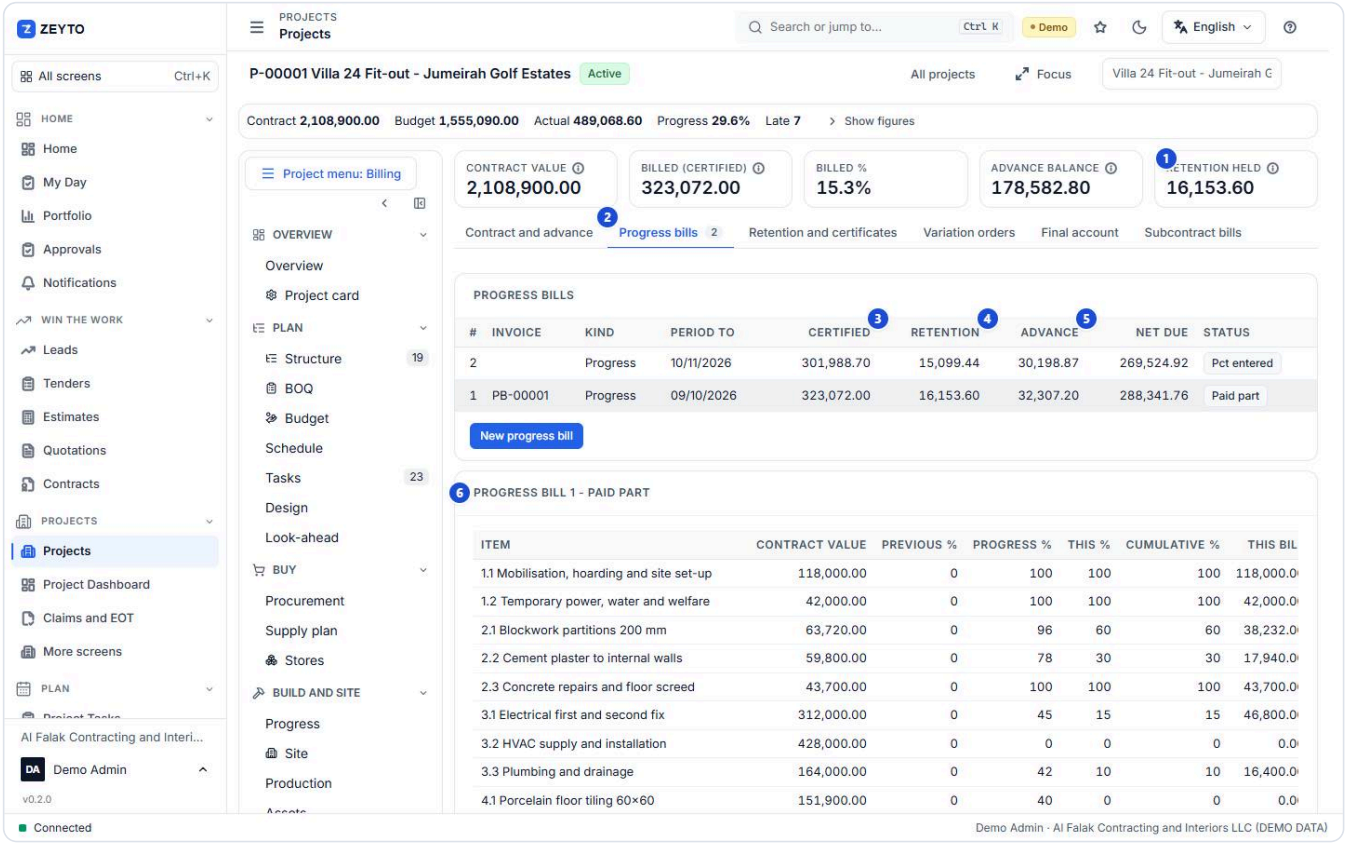
STEP	CALCULATION	AED
Retention held	5 percent of 323,072.00 (cap would be 105,445.00, not reached)	16,153.60
Taxable value	323,072.00 minus 16,153.60	306,918.40
VAT on the lines	5 percent of each line, 16,153.60 in all	16,153.60
VAT on the retention	5 percent of 16,153.60, taken off	-807.68
VAT on the bill	16,153.60 minus 807.68	15,345.92
Invoice total	306,918.40 plus 15,345.92	322,264.32
Advance recovered	10 percent of the gross 323,072.00	32,307.20
Advance VAT reversed	5 percent of 32,307.20	1,615.36
Net receivable	**322,264.32 minus 32,307.20 minus 1,615.36**	**288,341.76**

Now the journal that the invoice posts. Under revenue method B the credit goes to 2310 Contract Billings. Under method A (the golden tests) the same credit goes to 4000.

ACCOUNT	DR	CR
1200 Trade Receivables (net receivable)	288,341.76	
2300 Customer Advances (advance recovered)	32,307.20	

ACCOUNT	DR	CR
2200 VAT Output (advance VAT reversed)	1,615.36	
1250 Retention Receivable	16,153.60	
2310 Contract Billings (method B)		323,072.00
2200 VAT Output (VAT on the bill)		15,345.92
Total	**338,417.92**	**338,417.92**

Read the entry in plain words. The client now owes 288,341.76. Part of the old advance (32,307.20) has been used up. 16,153.60 is parked in Retention Receivable until release. The company has billed 323,072.00 of contract value and owes the tax office 15,345.92 less the 1,615.36 it had already declared on the advance, so the net VAT effect of this bill is 13,730.56. Debits and credits agree at 338,417.92.



The Billing tab of Villa 24. Bill 1 (PB-00001, period to 09/10/2026) is Paid part and bill 2 (period to 10/11/2026, 301,988.70 certified) is Pct entered. The lines of bill 1 show Previous %, Progress % (approved), This % and Cumulative %. Bill 2 has retention 15,099.44, advance 30,198.87 and net due 269,524.92.

1. The money position of the contract: contract value 2,108,900.00, billed (certified) 323,072.00, billed 15.3 percent, advance balance 178,582.80, retention held 16,153.60.
2. The tabs of the billing page and the list of progress bills, one line for each bill with its state.
3. Retention: 16,153.60 on bill 1, which is 5 percent of the certified 323,072.00.
4. Advance: 32,307.20 recovered on bill 1, which is 10 percent of the certified amount.
5. Net due: 288,341.76 on bill 1.

6 Bill lines: each BOQ item with the contract value and the progress before, this bill and cumulative.

REAL EXAMPLE

The same logic in a golden test (GS_SHARP_02)

The product's billing test uses a smaller contract with a 189,000 advance (180,000 net), a bill of four lines totalling 141,000, retention 7,050 and an advance recovery of 21,150 (15 percent of the gross). The test asserts every row of the posting:

ACCOUNT	DR	CR
1200 Trade Receivables	118,440.00	
2300 Customer Advances	21,150.00	
2200 VAT Output (advance VAT reversed)	1,057.50	
1250 Retention Receivable	7,050.00	
4000 Sales		141,000.00
2200 VAT Output (VAT on the bill)		6,697.50
Total	**147,697.50**	**147,697.50**

Net VAT for the bill is 6,697.50 minus 1,057.50, which is 5,640.00. The Villa 24 entry above has exactly the same shape: only the figures and the revenue account differ.

Deductions: liquidated damages and others

A bill can carry deductions (`sharp_pbill_deduction`), for example liquidated damages for late completion. A deduction reduces what the client pays and is booked as a cost, but it does not reduce the VAT base.

REAL EXAMPLE

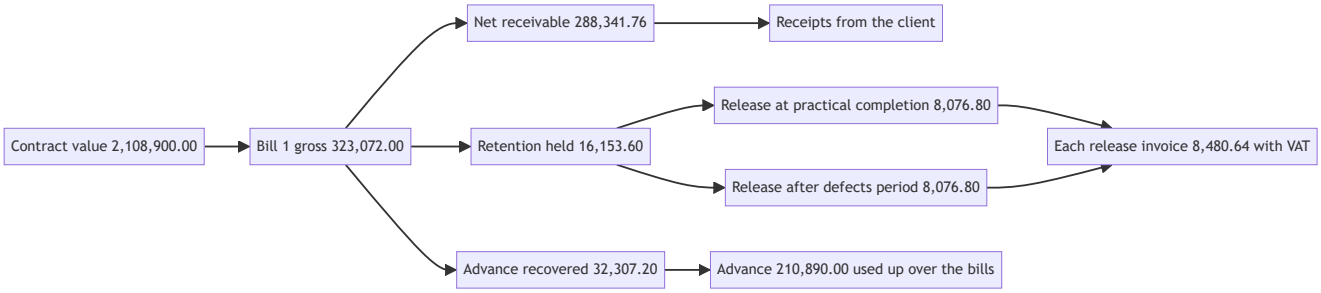
A bill with retention and liquidated damages (GS_SHARP_03)

The test bills 100,000.00 with 5,000.00 retention and a 2,000.00 deduction for liquidated damages. VAT is 5 percent of 95,000.00, which is 4,750.00. The client owes 95,000.00 plus 4,750.00 minus 2,000.00, which is 97,750.00.

ACCOUNT	DR	CR
1200 Trade Receivables	97,750.00	
5390 Liquidated damages charge	2,000.00	
1250 Retention Receivable	5,000.00	
4000 Sales		100,000.00
2200 VAT Output		4,750.00
Total	**104,750.00**	**104,750.00**

Retention: held, then released

Retention is tracked per contract in `sharp_retention_ledger`. A release is its own document (`sharp_retention_release`, prefix RR-, `Sales ▸ Retention`) that moves through DRAFT, SUBMITTED, APPROVED, INVOICED and PAID, or CANCELLED. The release is a tax invoice on account 1250 and it is the tax point for the VAT on that part of the retention.



Where the money goes. One bill of Villa 24, drawn from contract value to the two retention releases. The release invoices carry the VAT that was held back on the bill, and the two releases of this example together return the whole 16,153.60 of retention. The last box shows the advance, which is recovered a slice at a time across every bill.

REAL EXAMPLE

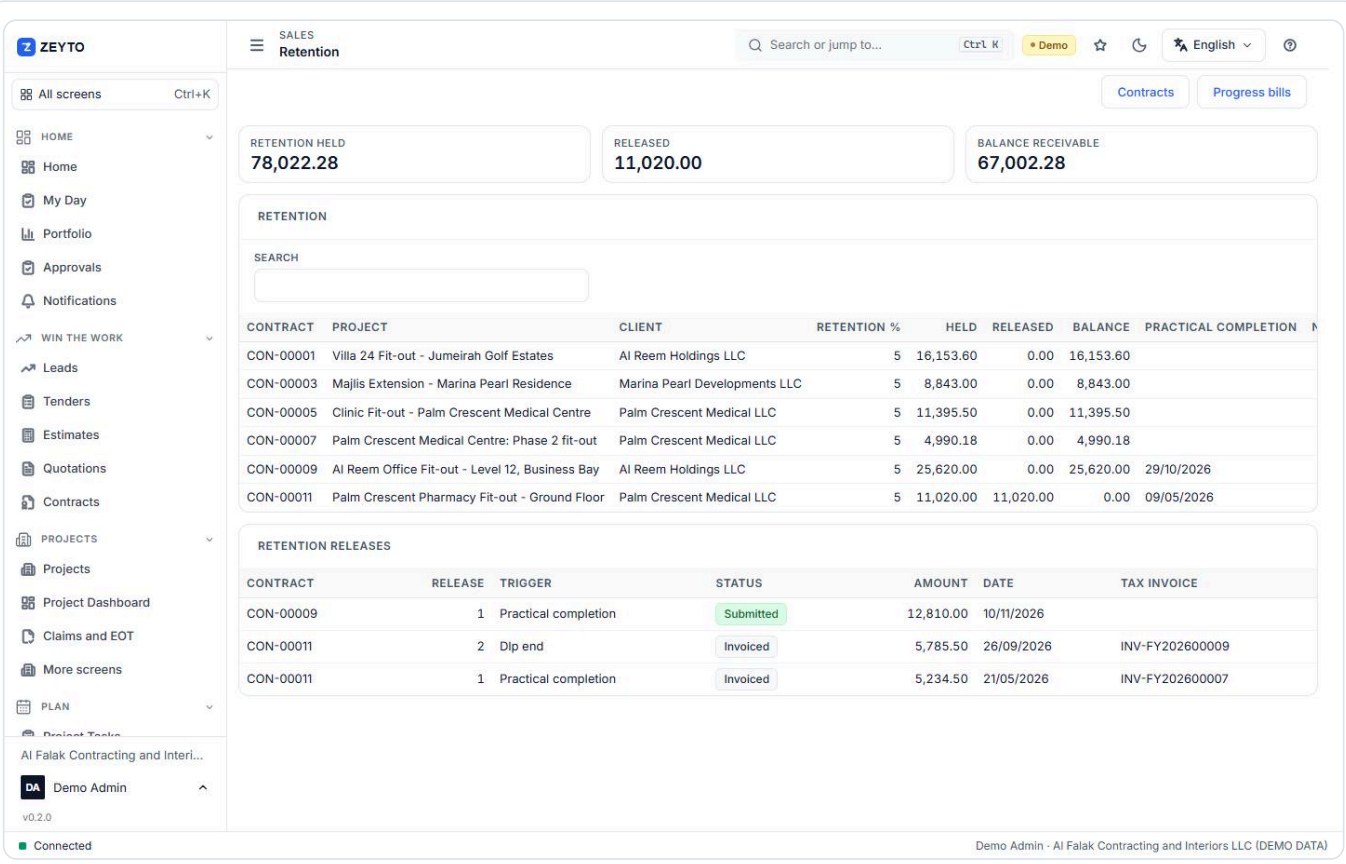
Release of retention (GS_SHARP_06) and the Villa 24 release

The golden test releases half of a 5,000.00 retention: 2,500.00. Because the release is the tax point, VAT of 125.00 is charged on it, and the client owes 2,625.00.

ACCOUNT	DR	CR
1200 Trade Receivables	2,625.00	
1250 Retention Receivable		2,500.00
2200 VAT Output		125.00
Total	**2,625.00**	**2,625.00**

The VAT on retention is declared once, on the release invoice, and never twice. The same rule applied to Villa 24's bill 1 gives, for the 50 percent release at practical completion: 50 percent of 16,153.60 is 8,076.80, VAT 5 percent is 403.84, and the client owes 8,480.64. These Villa 24 release figures are derived from the formula, not read from the live demo.

The demo company also has a closed and archived project, Palm Crescent Pharmacy, with several retention releases invoiced, so you can read what a finished retention history looks like.



The Retention page. Retention held 78,022.28, released 11,020.00, balance receivable 67,002.28 across six contracts, each at 5 percent. CON-00001 (Villa 24) holds 16,153.60. The release list shows triggers "Practical completion" and "Dlp end" and the states Submitted and Invoiced, with the tax invoice number once invoiced.

RULE THE SYSTEM ENFORCES

You cannot bill ahead of progress, you cannot invoice a bill without the client's certificate reference, and you cannot have two open bills on one contract. If one of these refusals surprises you, the data is telling you that the site, the client or the previous bill is behind.

Not verified: the debit side of the advance tax invoice (it depends on whether you invoice first and collect after, or receive cash first), the posted journal of bill 1 (the pictures show the bill, not its ledger rows), and the figures on the live host. The release figures for Villa 24 (8,076.80, VAT 403.84, 8,480.64) are derived from the formula; the Retention page confirms the 16,153.60 they start from.

> Source: `src/Zeyto.Edge/Api/Sharp/SharpBillingApi.cs` (`RecalcAsync`), `tests/Zeyto.Tests/GoldenSharpBillingTests.cs` , `tests/Zeyto.Tests/GoldenSharpContractBillTests.cs` , `tools/demo-seed/lib/projects.mjs` , `docs/sharp/user-guide-workflow.md` (stage 9 and the revenue methods), the `sharp_pbill` , `sharp_retention_ledger` and `sharp_retention_release` tables in the `9*sharp*.sql` migrations

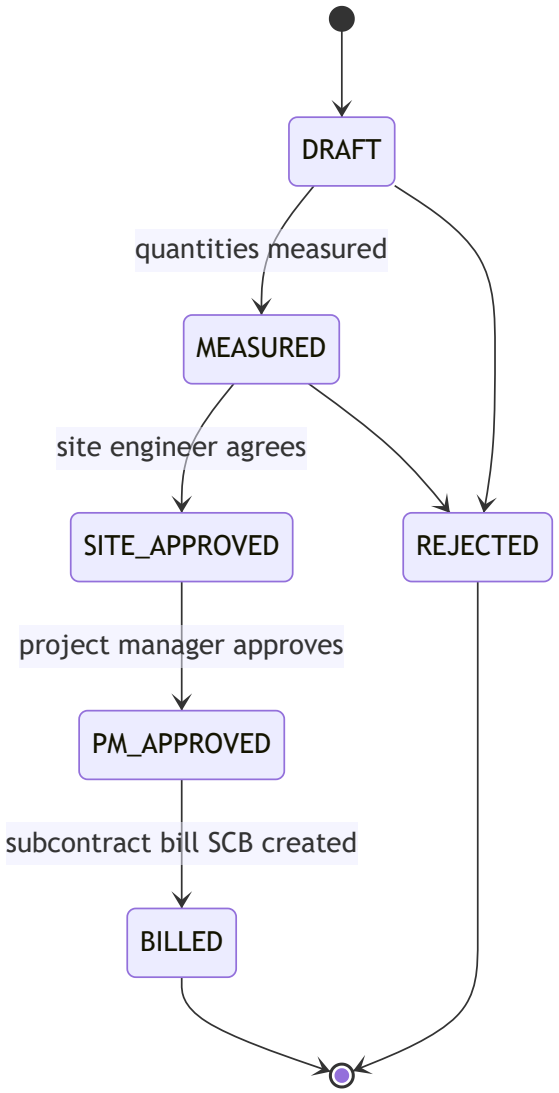
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9. Paying: subcontractors, petty cash, wages and end-of-service gratuity

The client holds back retention from you. You do the same to your subcontractors, with the same VAT rule. Wages and site cash are the other two money streams that must land on the right project.

Subcontractor certificates and bills

A subcontractor is paid on a measured certificate, not on an invoice it sends you. The certificate (`sharp_sc_certificate` , lines in `sharp_sc_certificate_line`) measures the quantity done per subcontract item. You find it under `Projects ▸ Projects` , the project, the People tab group, then the Subcontract tab.



Subcontract certificate states. The six values are DRAFT, MEASURED, SITE_APPROVED, PM_APPROVED, BILLED and REJECTED. The bill (prefix SCB-) is a purchase invoice that puts the cost on the item of work. The subcontract itself runs DRAFT, ACTIVE, COMPLETE, CLOSED, with TERMINATED as the abnormal end.

REAL EXAMPLE

A subcontract bill with retention and advance recovery (GS_SHARP_23)

The golden test certifies 80,000.00 of work. The subcontract holds 10 percent retention (8,000.00) and recovers 20,000.00 of an advance paid earlier. VAT at 5 percent is charged on the certified value less retention: 72,000.00 times 5 percent is 3,600.00. The advance had carried 1,000.00 of input VAT, and recovering the advance gives that VAT back (1,000.00). What the company pays the subcontractor is 72,000.00 minus 20,000.00 plus 3,600.00 minus 1,000.00, which is 54,600.00.

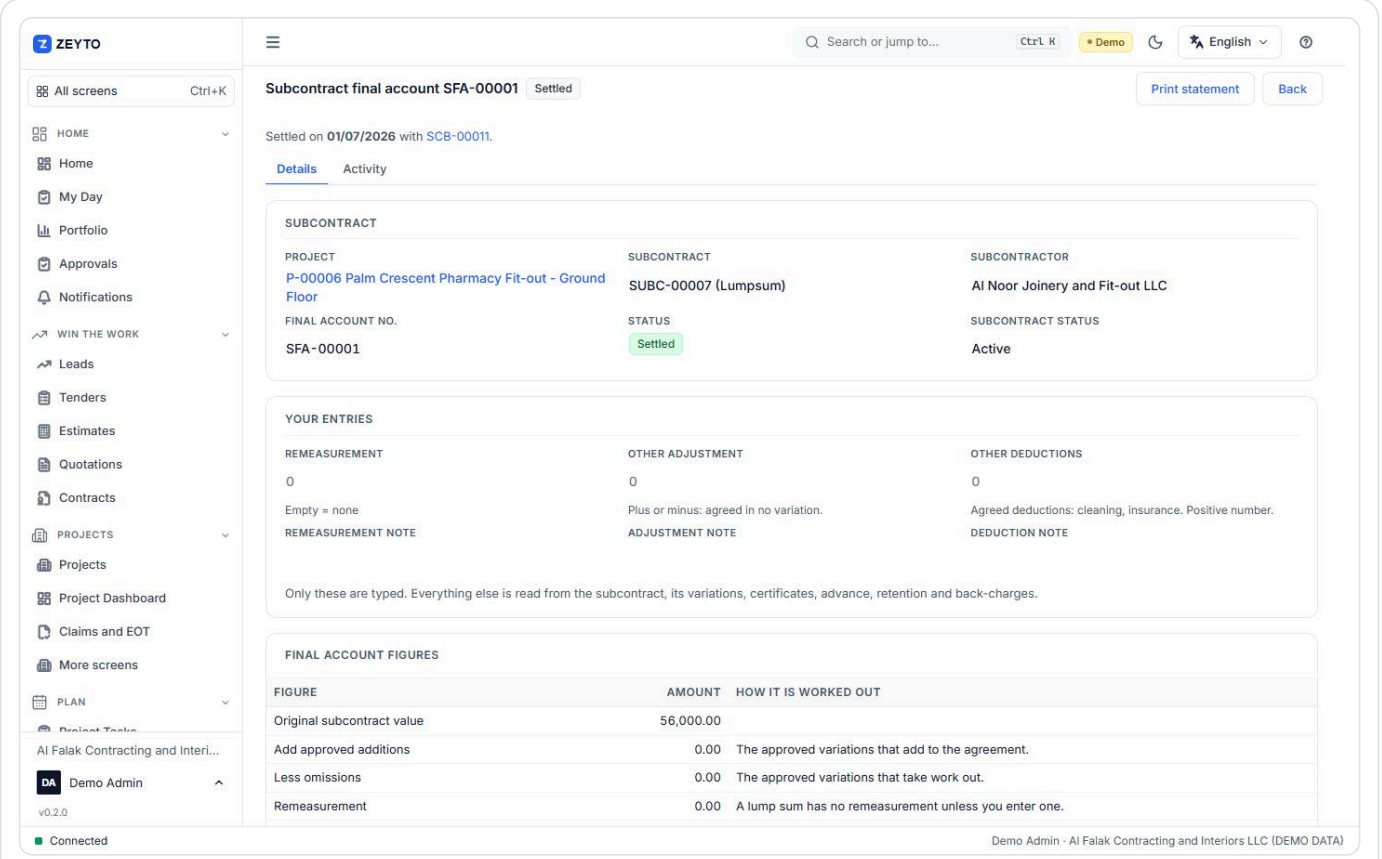
ACCOUNT	DR	CR
5320 Subcontract Cost	80,000.00	
1400 VAT Input	3,600.00	
2150 Retention Payable		8,000.00
1400 VAT Input (advance VAT given back)		1,000.00
1450 (the advance paid to the subcontractor)		20,000.00
2100 Trade Payables		54,600.00
Total	**83,600.00**	**83,600.00**

When the retention is later released (GS_SHARP_24), the company releases 4,000.00 of the 8,000.00, claims 200.00 input VAT on it (5 percent) and owes the subcontractor 4,200.00.

ACCOUNT	DR	CR
2150 Retention Payable	4,000.00	
1400 VAT Input	200.00	
2100 Trade Payables		4,200.00
Total	**4,200.00**	**4,200.00**

Back-charges and the subcontract final account

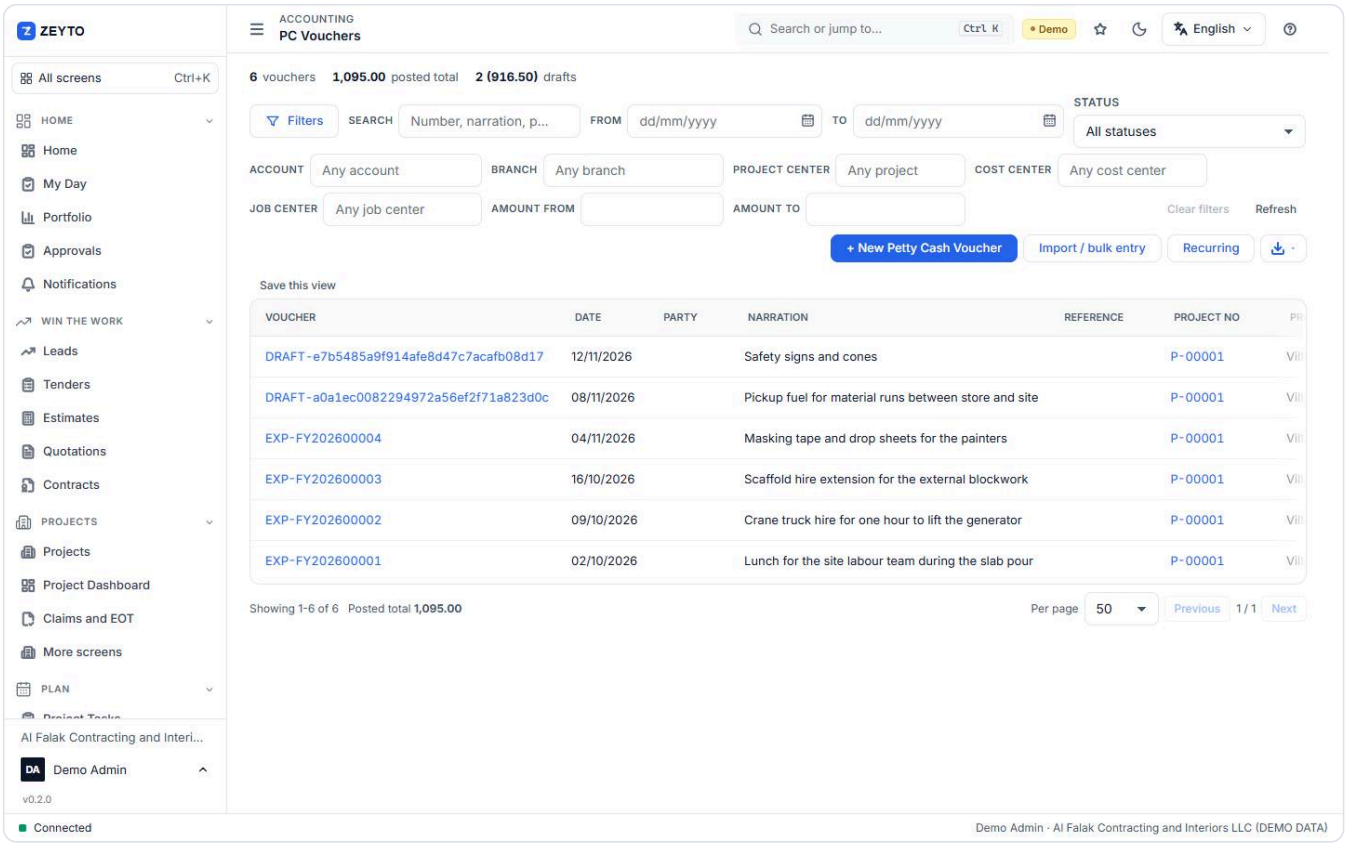
If a subcontractor's defect has to be fixed by someone else, the cost can be charged back against what you owe it (`sharp_sc_backcharge`). In the demo company, a plumbing snag carries a back-charge of AED 3,200.00 to the plumbing subcontractor. At the end of the job, `Bill and Cash ▸ Subcontract Final Accounts` (`sharp_sc_final_account`) settles the whole subcontract: certified work, retention still held, back-charges and the balance.



A subcontract final account. SFA-00001 is Settled for subcontract SUBC-00007 (lump sum, Al Noor Joinery and Fit-out LLC) on project P-00006, settled on 01/07/2026 with the subcontract bill SCB-00011. The page says "Only these are typed. Everything else is read from the subcontract, its variations, certificates, advance, retention and back-charges." The three typed entries are Remeasurement, Other adjustment and Other deductions. The original subcontract value is 56,000.00.

Petty cash

Small site expenses go through a float. The petty cash page opens from Accounting and is titled **PC Vouchers**; it lists each voucher with its number, date, narration and project, and offers + New Petty Cash Voucher, Import / bulk entry and Recurring. The float and each expense (`sharp_petty_voucher`; the project a float may serve is held in `sharp_petty_float_project`). The demo's Villa 24 float, PC-V24, holds AED 10,000.00 with limits of AED 500.00 per voucher and AED 2,000.00 per day, so a voucher above the limit is refused. Every voucher carries the project, so the spend reaches the project report.



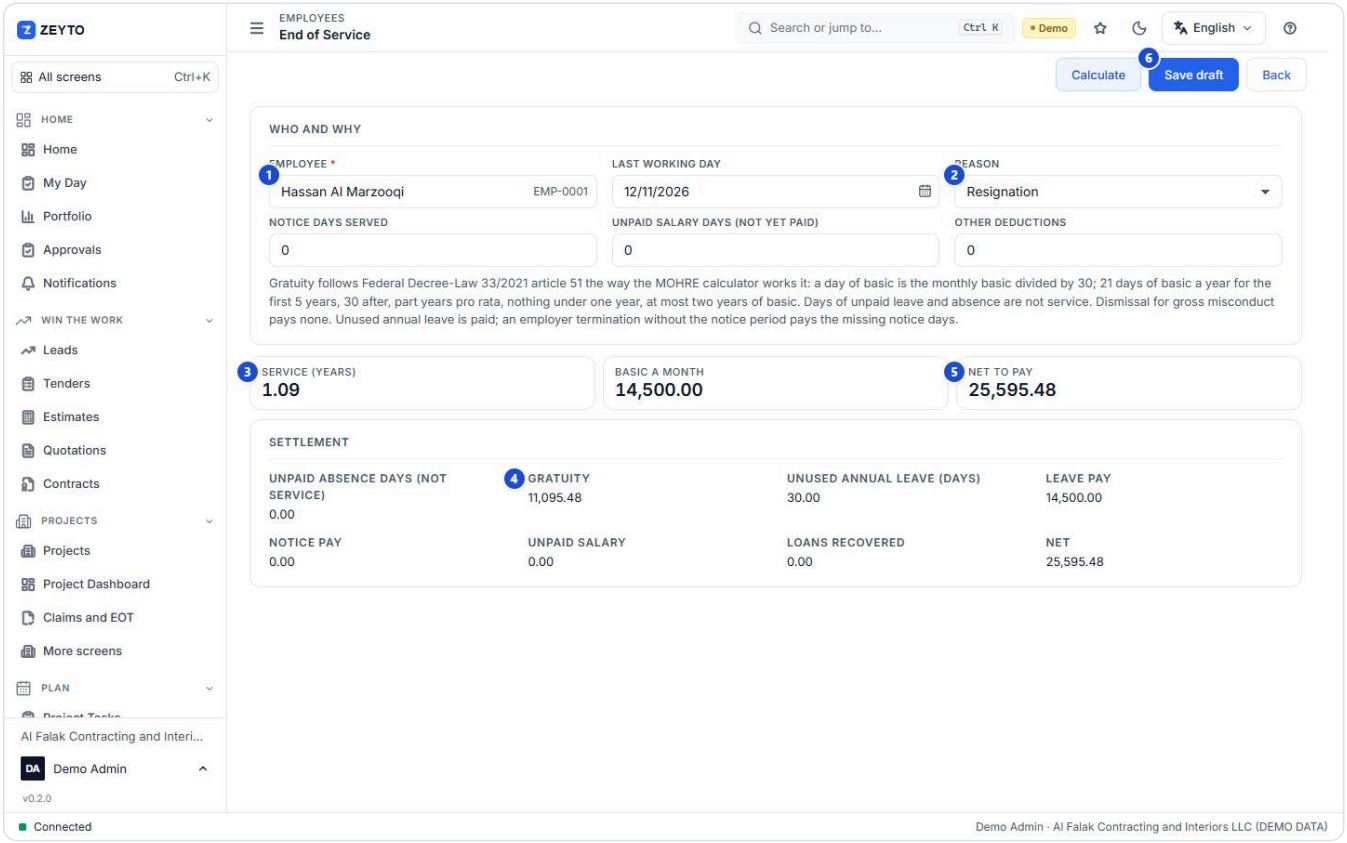
PC Vouchers. Six vouchers, all on P-00001: four posted (EXP-FY202600001 to 4, 1,095.00 in total) and two drafts (916.50 in total) that carry a long DRAFT reference until they are posted.

Wages, WPS and gratuity

`Employees ▸ Payroll` runs the month, and `Employees ▸ WPS` produces the wage protection file for the bank. Gratuity is the end-of-service payment owed to a UAE employee. Sharp calculates it with a fixed set of rules, written into the product after the owner's decision of 8 November 2026 and based on Article 51 of Federal Decree-Law 33 of 2021.

RULE	WHAT THE CALCULATOR DOES
Daily wage	Basic salary divided by 30. Allowances are not part of it.
Under one year	Nothing is due
First five years	21 days of basic for each year
Beyond five years	30 days of basic for each further year
Part years	Counted in proportion
Unpaid absence	Days of unpaid absence are not counted as service (each one is one 365th of a year)
Cap	The total cannot exceed 24 times the monthly basic
Rounding	Half up to 2 decimals
Gross misconduct	A dismissal for gross misconduct pays no gratuity (a rule printed on the End of Service screen)

RULE	WHAT THE CALCULATOR DOES
Leave and notice	Unused annual leave is paid, and an employer termination without the notice period pays the missing notice days (also printed on the screen)



End of Service. The text on the page restates the rules: Federal Decree-Law 33/2021 article 51 as the MOHRE calculator works it, a day of basic is the monthly basic divided by 30, 21 days of basic a year for the first 5 years and 30 after, part years pro rata, nothing under one year, at most two years of basic, unpaid leave and absence are not service, gross misconduct pays none. The form was calculated and not saved.

1. Employee: the person who is leaving (Hassan Al Marzooqi, EMP-0001).
2. Last working day (12/11/2026) and reason (Resignation). Notice days served, unpaid salary days and other deductions are typed below.
3. Service (1.09 years) and the basic a month (14,500.00).
4. Gratuity: 11,095.48, worked out by the rule printed on the page.
5. Net to pay: 25,595.48, which is gratuity plus leave pay less deductions and loans.
6. Calculate shows the figures. Save draft keeps the settlement.

ILLUSTRATIVE FIGURES

Gratuity for a foreman on a basic of AED 5,200.00

5,200.00 is the basic that the demo seed gives one of its foremen. The lengths of service below are made up; the real End of Service screen follows after them. Daily wage is 5,200.00 divided by 30, which is 173.3333 and so on, so the day counts are multiplied first and the result rounded once.

SERVICE	DAYS OWED	CALCULATION	GRATUITY (AED)
Under one year	0	nothing due	0.00
3 full years	63	3 × 21 = 63 days; 63 × 5,200 / 30	10,920.00
7 full years	165	5 × 21 + 2 × 30 = 165 days; 165 × 5,200 / 30	28,600.00

The cap is 24 times 5,200.00, which is 124,800.00, so none of these reaches it. A worker with 3 years and 30 days of unpaid absence has 30 / 365 of a year taken off the service before the rule is applied.

REAL EXAMPLE

End of Service for the project manager, as the screen calculates it

The picture above is the End of Service form filled for Hassan Al Marzooqi (EMP-0001), last working day 12/11/2026, reason Resignation, basic 14,500.00 a month, service 1.09 years. The form was calculated and not saved. The daily wage is 14,500.00 divided by 30, which is 483.3333 and so on, so 21 days of basic for a year is 10,150.00. The service is 399 days, which is 399 / 365 of a year, so the gratuity is 10,150.00 times 399 / 365, which is 11,095.48. The 30 days of unused annual leave are paid at the daily wage: 14,500.00. The net to pay is 11,095.48 plus 14,500.00, which is 25,595.48.

LINE ON THE SCREEN	AED
Gratuity	11,095.48
Leave pay (30.00 unused days)	14,500.00
Notice pay, unpaid salary, loans recovered, other deductions	0.00
Net	**25,595.48**

The 399 days are my reading of the 1.09 years on screen: 10,150.00 times 399 / 365 reproduces 11,095.48 exactly, so the calculator evidently counts service in days over 365.

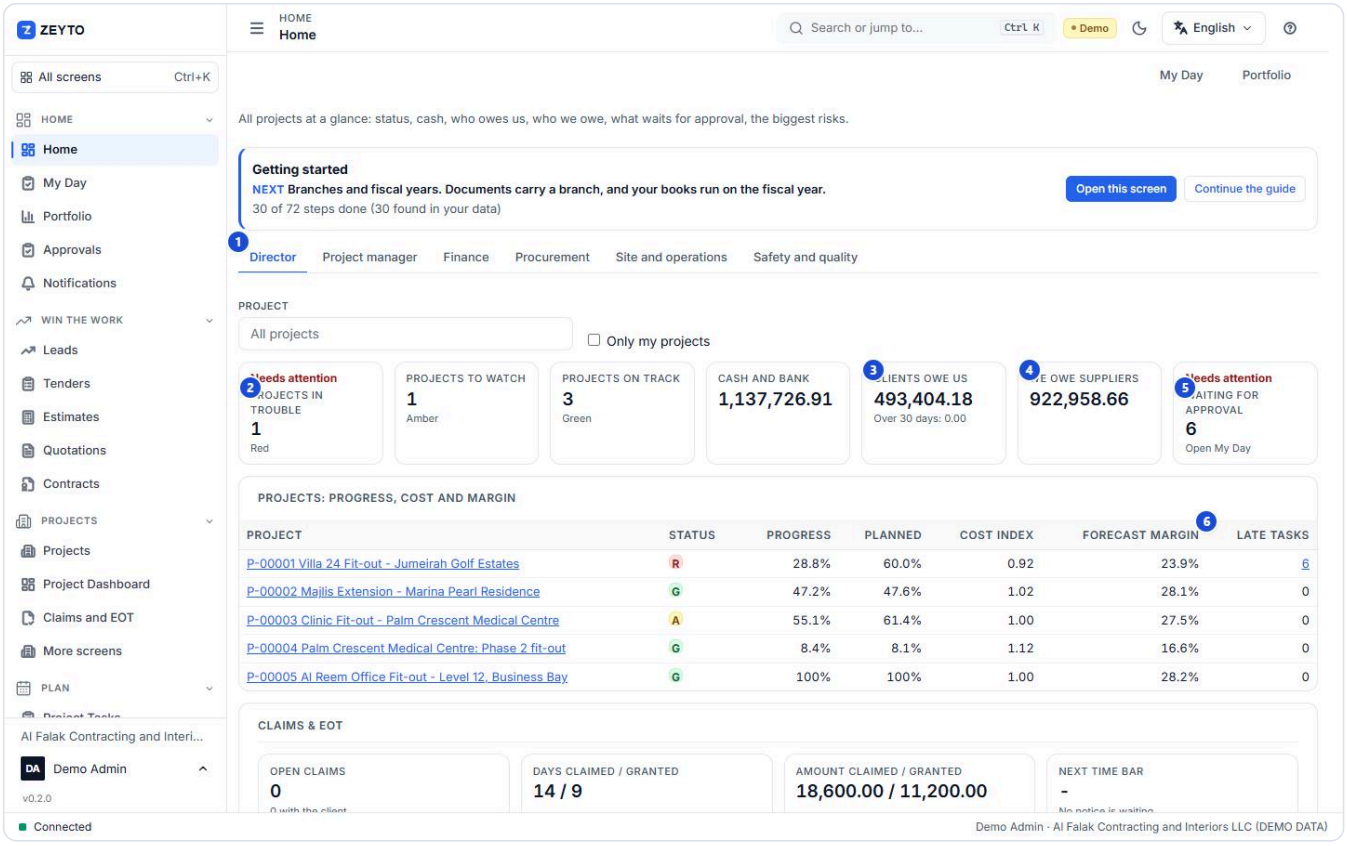
Not verified in code: where the gratuity amount is posted when the employee leaves. This chapter covers the calculator only.

> Source: `tests/Zeyto.Tests/GoldenSharpBillingTests.cs` (GS_SHARP_23 and GS_SHARP_24), `docs/sharp/user-guide-workflow.md` (stage 10), `src/Zeyto.Edge/Domain/GratuityCalculator.cs`, `tools/demo-seed/lib/masters.mjs`, the `sharp_sc_*` and `sharp_petty_*` tables in the `9*sharp*.sql` migrations

10. Control: the project home, WIP and the portfolio

The owner of a contracting company asks three questions every week. Which projects are late, which are losing money, and what has been earned but not yet billed. Sharp answers them in the Home group and in the project's Reports tab.

- **My Day and Approvals.** `Home ▸ My Day` lists what is waiting for you, and `Home ▸ Approvals` lists what you can approve (`sharp_approval_request`).
- **Portfolio and Map.** `Home ▸ Portfolio` puts every project on one board. `Plan ▸ Map` shows them on a map.
- **Project Dashboard.** `Projects ▸ Project Dashboard` is the one-project view. The product also keeps alert rules (`sharp_alert_rule`) and cash-flow runs (`sharp_cashflow_run`).
- **Finance Hub.** `Bill and Cash ▸ Finance Hub` is the billing and cash overview.



Home, the Director view. A "Getting started" panel sits on top in the demo. Cash and bank 1,137,726.91. The Claims & EOT panel further down shows days claimed and granted 14 / 9 and amounts 18,600.00 / 11,200.00.

1. Home views: Director, Project manager, Finance, Procurement, Site and operations, Safety and quality.
2. Projects in trouble: 1 project has a red measure. Projects to watch 1 (amber) and projects on track 3 (green).
3. Clients owe us: 493,404.18, with "Over 30 days: 0.00".
4. We owe suppliers: 922,958.66.
5. Waiting for approval: 6, with a link to My Day.
6. The project table: progress against plan, cost index, forecast margin and late tasks for each project.

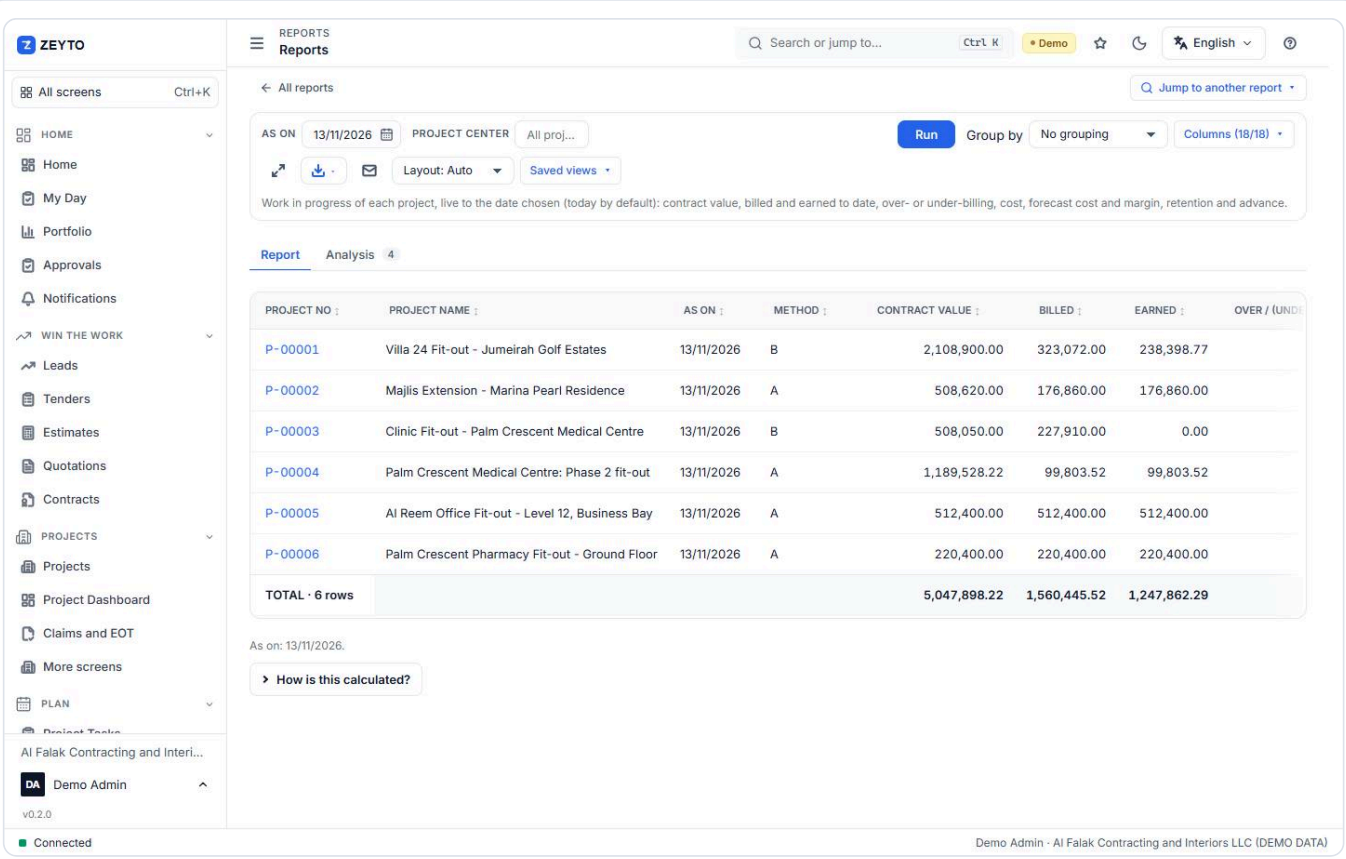
Work in progress (WIP)

The WIP report is the honest answer to "are we billing more than we have earned?". For each project it shows these columns.

COLUMN	MEANING
Contract value	The signed value, as revised by approved variations
VO pending	Variations raised but not yet approved by the client

COLUMN	MEANING
Billed to date	Gross certified value of the invoiced bills
Earned	Under methods A and C, the same as billed. Under methods B and D, the revenue booked by the last posted revenue run
Over or (under) billed	Billed minus earned. Positive means you billed ahead of the work; negative means work done but not yet billed
Cost to date, EAC, forecast margin	What you have spent, the estimate at completion and the margin that implies
Retention held, advance balance	What the client still holds of yours, and what is left of the advance

A flag called `revenueStale` tells you that the revenue run is older than the latest bill, so the earned figure is out of date. Saving a snapshot (`sharp_wip_snapshot`) records the figures for a date and posts no journal.



The WIP report. The description reads "Work in progress of each project, live to the date chosen (today by default): contract value, billed and earned to date, over- or under-billing, cost, forecast cost and margin, retention and advance." The filters are As on, Project center and Group by. The Method column shows A or B, and the table has 18 columns, of which the picture shows the first seven.

REAL EXAMPLE

The WIP report of the demo company on 13/11/2026

The picture above is the report run for all projects. Contract value, billed and earned are read from it. The last column is worked out here as billed minus earned, because the report's own over or under column is cut off at the edge of the picture. Only methods B (and D) can show a difference, because under A and C earned equals billed.

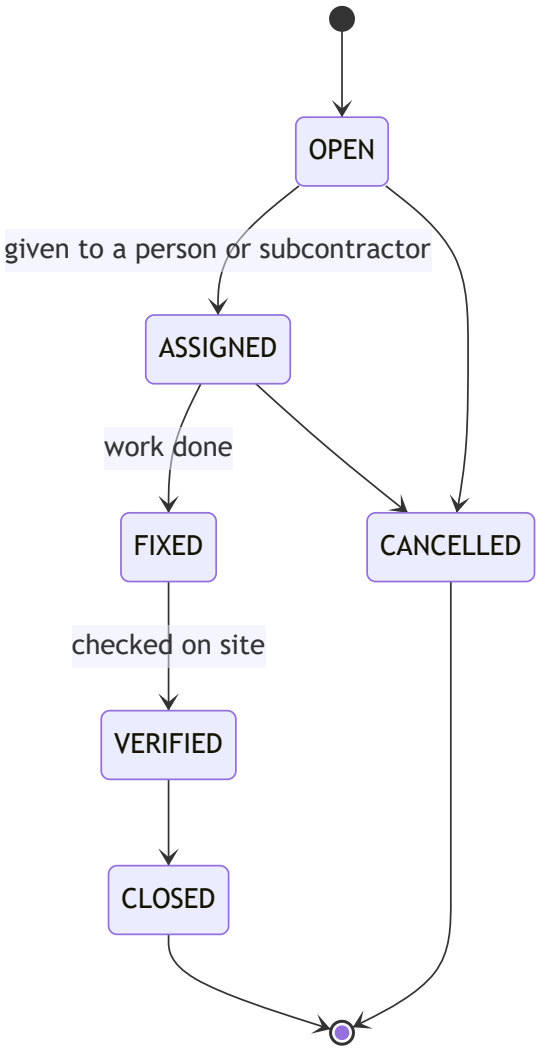
PROJECT	METHOD	CONTRACT VALUE	BILLED	EARNED	BILLED MINUS EARNED
P-00001 Villa 24 Fit-out	B	2,108,900.00	323,072.00	238,398.77	84,673.23
P-00002 Majlis Extension	A	508,620.00	176,860.00	176,860.00	0.00
P-00003 Clinic Fit-out	B	508,050.00	227,910.00	0.00	227,910.00
P-00004 Palm Crescent Phase 2	A	1,189,528.22	99,803.52	99,803.52	0.00
P-00005 Al Reem Office Fit-out	A	512,400.00	512,400.00	512,400.00	0.00
P-00006 Palm Crescent Pharmacy	A	220,400.00	220,400.00	220,400.00	0.00
Total, 6 rows		**5,047,898.22**	**1,560,445.52**	**1,247,862.29**	**312,583.23**

Read Villa 24 first. It has billed 323,072.00 (bill 1) and the last revenue run has recognised 238,398.77 of revenue, so the contract is billed ahead of what it has earned by 84,673.23. P-00003 shows earned 0.00 against 227,910.00 billed: it is a method B contract for which no revenue run has put revenue into the books yet, so the whole billing still sits in Contract Billings 2310 as a liability. Run and post the month-end revenue run to fix it. The other columns of the same report, and the other figures that belong to Villa 24, are read from other screens: actual cost 489,068.60 and forecast margin 23.89 percent from the project Overview, retention held 16,153.60 from the Retention page, and an advance balance of 178,582.80 (210,890.00 minus 32,307.20) from the Billing tab. The Variation Orders page shows 62,300.00 waiting for approval.

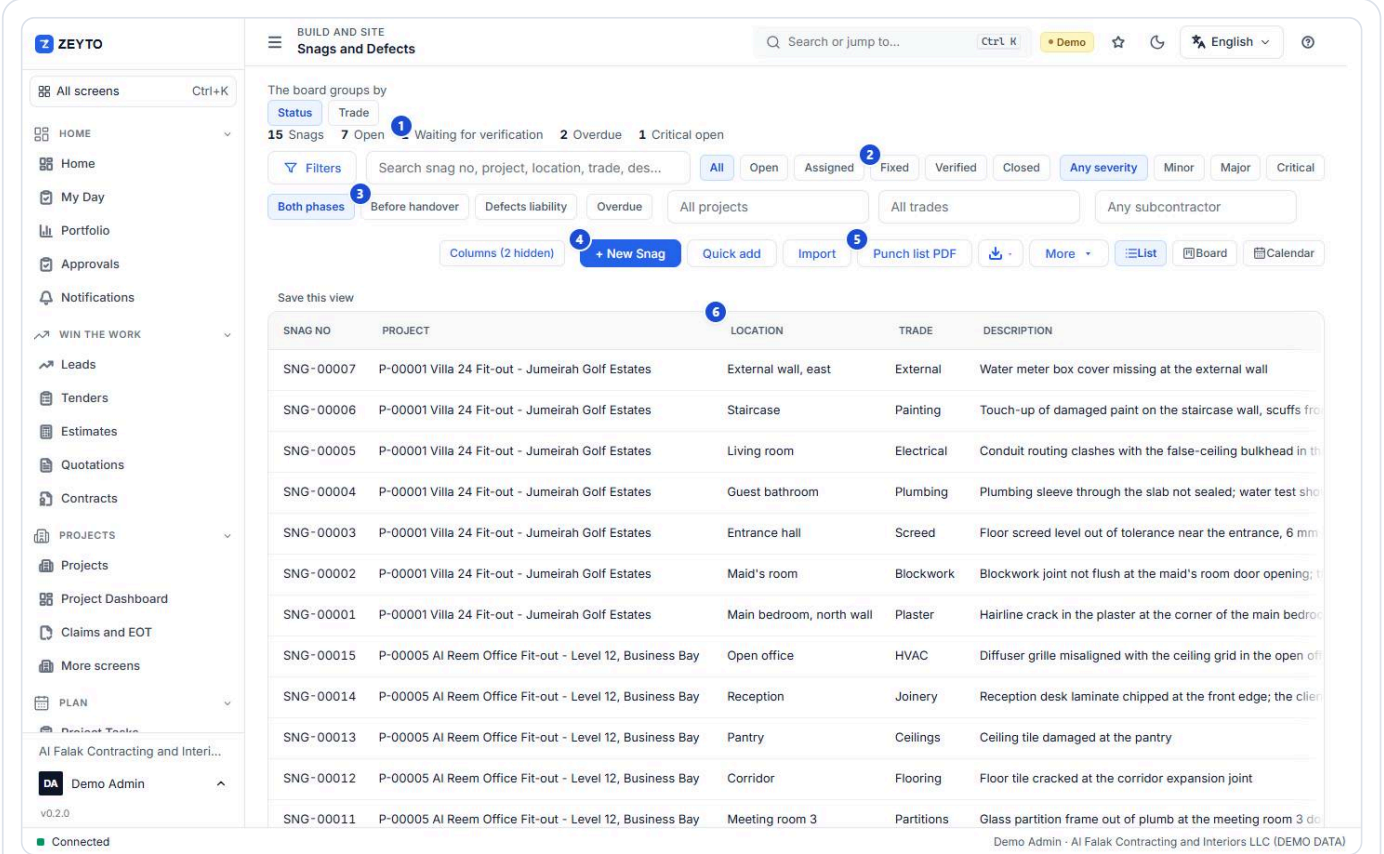
> Source: `src/Zeyto.Edge/Api/Sharp/SharpWip.cs`, `src/Zeyto.Web/src/nav.ts`, `docs/sharp/user-guide-workflow.md` (stage 11), the `sharp_wip_snapshot`, `sharp_approval_request`, `sharp_alert_rule` and `sharp_cashflow_run` tables in the `9*sharp*.sql` migrations

11. Snags and closing the project

A building is handed over with a list of small defects, called snags. The client holds retention until they are fixed. Sharp tracks each snag from the day it is found to the day the client's representative checks it.

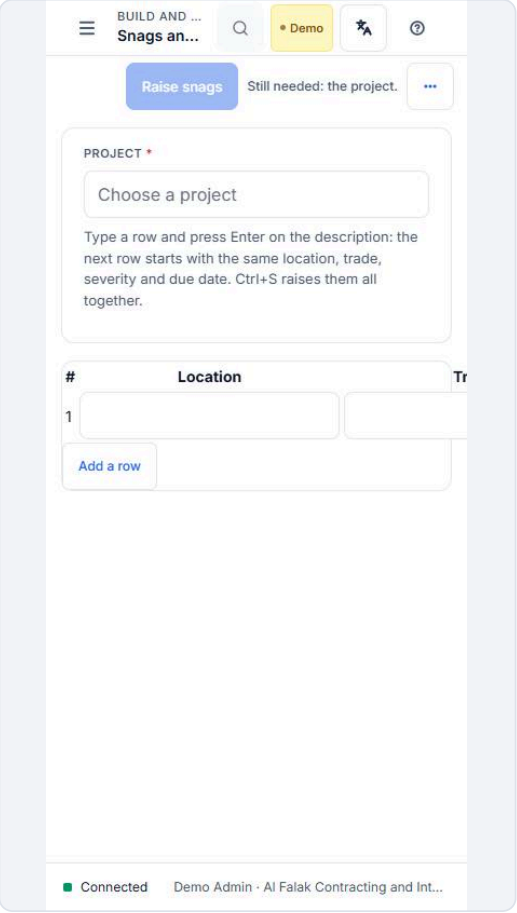


Snag states. The six values are OPEN, ASSIGNED, FIXED, VERIFIED, CLOSED and CANCELLED. A snag can be assigned to an employee or to a supplier party. Open one under `Build and Site ▸ Snags and Defects`, tied to an item of work and a site.



Snags and Defects. 15 snags in all, 7 open, 2 overdue and 1 critical open. The register can be shown as List, Board or Calendar, and the board groups by Status or Trade.

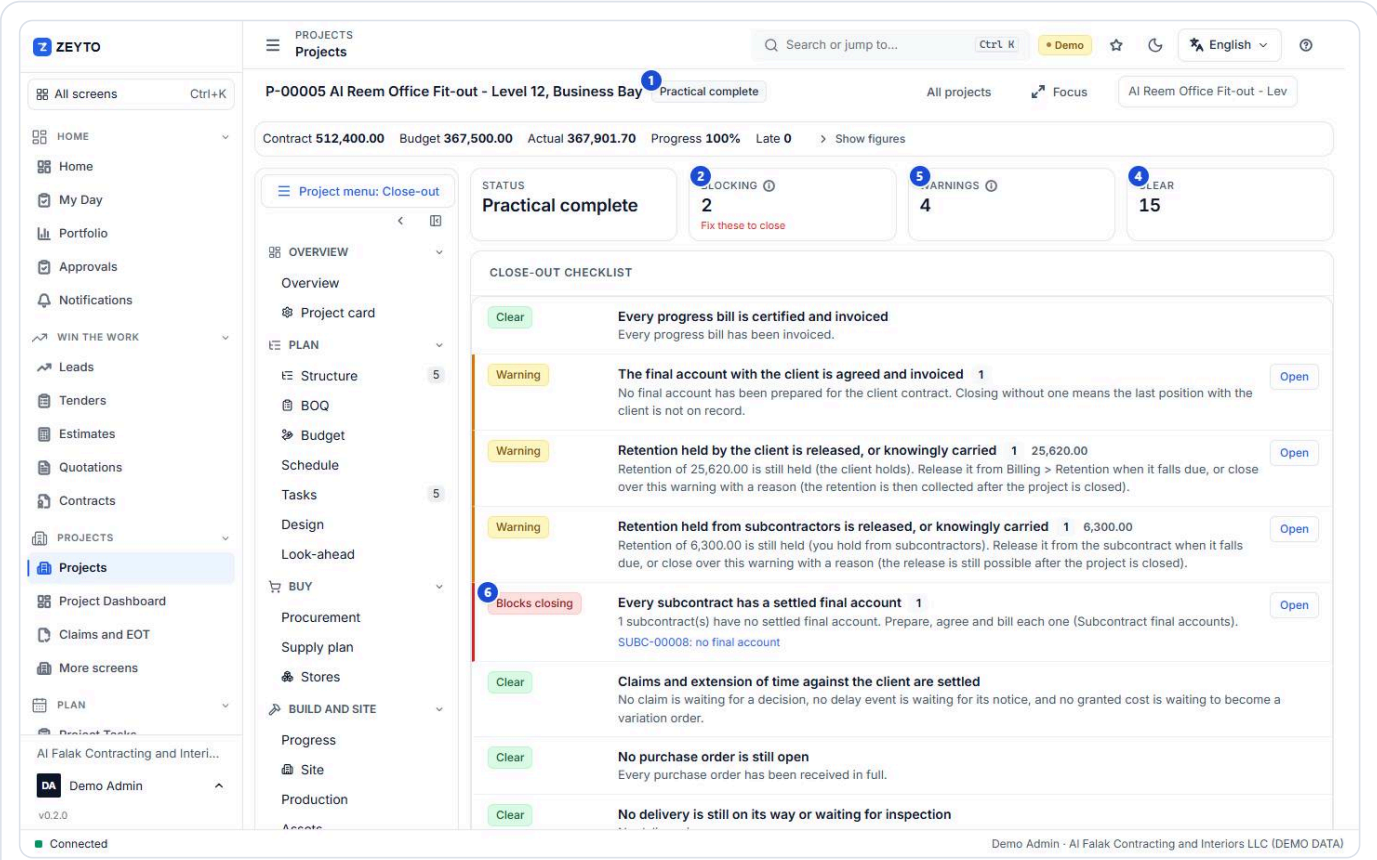
1. Counters: total, open, waiting for verification, overdue and critical open.
2. State filters: All, Open, Assigned, Fixed, Verified, Closed, plus severity Minor, Major and Critical.
3. Phase filters: Both phases, Before handover, Defects liability, Overdue.
4. + New Snag and Quick add.
5. Punch list PDF: the list to hand to the site team or the client.
6. The register: snag number, project, location, trade and description.



Raising snags on a phone. Choose the project, then type a row for each defect. The page says "Type a row and press Enter on the description: the next row starts with the same location, trade, severity and due date. Ctrl+S raises them all together." The button reads Raise snags and the page says "Still needed: the project."

1. **Practical completion.** When the client takes over the building, move the project to PRACTICAL_COMPLETE. This is the point where the contract's first retention release (50 percent in Villa 24) falls due.
2. **Release the first half of the retention.** In `Sales ▸ Retention`, create a release (it moves through DRAFT, SUBMITTED, APPROVED, INVOICED and PAID, with the approval permission `sharp.retention.approve`). Invoicing it charges VAT on that part of the retention.
3. **Fix the snags.** Assign each one, record the fix, have it verified and close it. If a subcontractor must pay for a snag, record the back-charge.
4. **Run the defects period.** The project sits in DLP (12 months in Villa 24). Defects found now are still snags.
5. **Settle with subcontractors.** Finish each subcontract in `Bill and Cash ▸ Subcontract Final Accounts` and release their retention.
6. **Agree the client final account.** The final account (`sharp_final_account`) moves through DRAFT, AGREED, INVOICED and CLOSED. It carries the last bill and the remaining retention.
7. **Close the project.** Open the Close-out tab of the project. It counts Blocking, Warnings and Clear items. A blocking item, such as a subcontract without a settled final account, must be fixed first. A warning, such as retention still held or no final account with the client, can be

closed over with a reason. A user with `sharp.project.close` closes it. The demo's closed and archived Palm Crescent Pharmacy shows the end state.



The Close-out checklist. P-00005 Al Reem Office Fit-out is Practical complete with 2 blocking, 4 warnings and 15 clear items. The first rows: every progress bill certified and invoiced (Clear); final account with the client agreed and invoiced (Warning); retention held by the client, 25,620.00 (Warning); retention held from subcontractors, 6,300.00 (Warning); every subcontract has a settled final account (Blocks closing).

1. The project status shown in the header: Practical complete.
2. Blocking: items that must be fixed before the project can close. The note reads "Fix these to close".
3. Warnings: items that can close with a reason.
4. Clear: items that pass their check.
5. A warning: retention still held. Release it from Billing, Retention when it falls due, or close over the warning with a reason.
6. A blocking item: "SUBC-00008: no final account". The Open button leads to the page that fixes it.

CLOSING IS HARD TO REVERSE

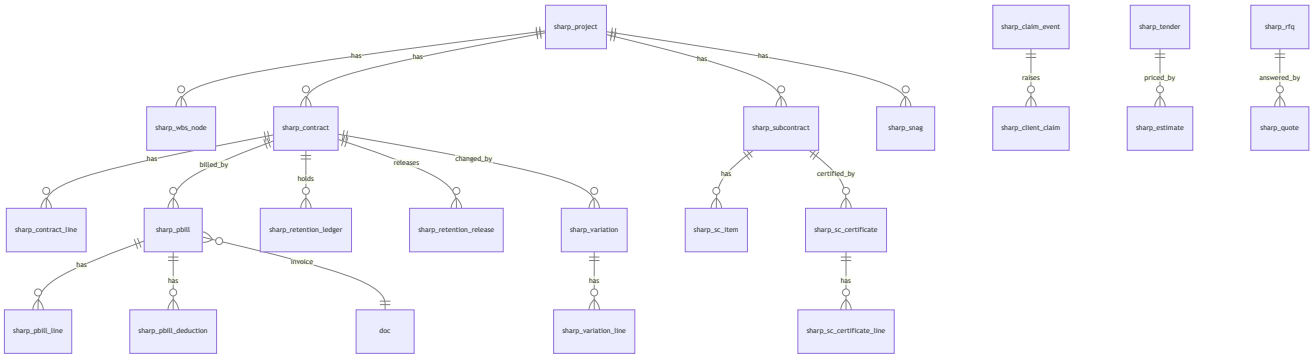
Close only after the final account is invoiced and every retention release is paid. The checklist lets you close over a warning with a reason, and says the retention can still be released after the project is closed, but a clean close is easier to explain to the client and the auditor.

Not verified: the full list of checks (the picture shows the first seven of 21 for one project: 2 blocking, 4 warnings, 15 clear) and whether a closed project can be reopened. Open the Close-out tab of your own project to see the whole list.

> Source: `9*sharp*.sql` (the `sharp_snag`, `sharp_final_account` and `sharp_project_closeout` tables and their status constraints), `docs/sharp/user-guide-workflow.md` (stage 12), `tools/demo-seed/lib/story-closeout.mjs`

12. How the data is organised, and what is checked live

Every Sharp table starts with `sharp_` and carries the company and, nearly always, the project. The invoice itself is not a Sharp table: a progress bill points at an ordinary ERP document (`doc`) in its `si_doc_id` column, a subcontract certificate points at a purchase invoice in `pi_doc_id` , and a contract points at its sales order in `so_doc_id` . That is how Sharp stays one set of books with the ERP.



The main tables and how they link. The links are the foreign keys of the Sharp migrations: a contract belongs to a project, a progress bill belongs to a contract and carries the ERP invoice in `si_doc_id` , bill lines point at contract lines and work-breakdown nodes, retention rows point at the bill or certificate that created them, and a client claim points at a delay event and optionally the variation raised from it. Other tables not drawn: `sharp_budget_version` , `sharp_node_budget` , `sharp_task` , `sharp_baseline` , `sharp_timesheet` , `sharp_final_account` , `sharp_project_closeout` , `sharp_wip_snapshot` .

ONE RULE TO REMEMBER ABOUT THE ERP

The ERP tables the product reads and writes most are `doc` , `doc_line` , `gl_entry` , `party` , `item` and `project_center` . Sharp does not have a second ledger. If a number in a Sharp report disagrees with the trial balance, the trial balance is the truth and the project tag on a voucher is the first thing to check.

What was checked live, and what is code only

ITEM	STATUS
The Sharp demo host is up and reports itself as ZEYTO-SHARP version 0.2.0, the same source revision as the sharp/main branch used for this chapter	Checked through its public health address, read only
The demo reports demo data mode and a development licence with no licence file	Checked from the same address
The login page shows a public demo login card and a list of 23 demo roles	Checked by looking at the page; nobody signed in
The screenshots in this chapter	Checked on a local Edge built from the same source revision (0.2.0, `sharp/main`) and seeded with the public demo seed. They are not pictures of the live host.
Menu labels, tabs and numbers that no picture shows	Code only from the screens, the API code, the migrations, the guide and the tests

ITEM	STATUS
That the seeded Villa 24 figures are present on the live company, and that the seed ran in full	Not checked because nobody signed in
The Villa 24 bill 1 and release figures in section 8	Derived with the product's formula; the bill 1 figures were matched to the Billing tab of the local run, the release figures were not

Not verified: any logged-in screen of the live demo. The chapter does not reproduce the demo credentials; ask the owner for access if you want to compare the figures with the live company.

> Source: `9*sharp*.sql` (`REFERENCES` clauses of the tables drawn), `src/Zeyto.Edge/Api/Sharp/SharpBillingApi.cs`, the public `/healthz` address of the Sharp demo host, `docs/operations/release-history.md`

13. Common mistakes

SYMPTOM	CAUSE	FIX
A project shows a better margin than the site feels	Costs were posted without the project dimension, or timesheets were never allocated	Check the voucher's project and run the labour allocation on approved timesheets
The bill is refused with BILL_EXCEEDS_PROGRESS	The percentages are above the approved physical progress	Get the site engineer's progress entered and approved first, then lower or re-enter the bill
You cannot open a new progress bill	One bill is already open on the contract	Finish or cancel the open bill
You cannot issue the tax invoice	The client's certificate reference is missing	Record the certificate reference on the bill
The retention VAT looks missing on the bill	VAT is not charged on the withheld part; it is charged on the release invoice	No fix needed. Check it on the release (section 8)
The advance seems to vanish too fast or too slowly	The contract's advance basis is GROSS but the team expected NET_OF_RETENTION, or the reverse	Read the basis on the contract before bill 1
Over or under billing always shows nothing	The contract uses revenue method A or C, where earned equals billed	Use B or D if you want the month-end revenue run, and run it
WIP shows earned revenue that is out of date	The revenue run is older than the latest bill (`revenueStale`)	Run and post the month-end revenue run
The Gantt chart still shows the project late after an extension was granted	A granted extension does not move the baseline	Move the completion date and the tasks by hand
The BOQ and the contract show different totals	The product does not compare them	Compare them after any BOQ edit

SYMPTOM	CAUSE	FIX
A goods receipt skipped the count	It was typed on Goods Receipts instead of coming from Delivery and Inspection	Use the controlled path for ordinary deliveries
A document cannot be approved by the person who raised it	The new-database default forbids self-approval	Approve with a second user, or change the setting under Approvals and Workflows if your policy allows it
A labour allocation skips an employee	No pay rate row for that person (NO_STANDARD_RATE)	Add the pay rate and run again

> Source: `src/Zeyto.Edge/Api/Sharp/SharpBillingApi.cs`, `src/Zeyto.Edge/Api/Sharp/SharpWip.cs`, `docs/sharp/user-guide-workflow.md` (the "What goes wrong" notes of each step)

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14. Check yourself

Open the demo company or your own and confirm each of these. If one fails, the section in brackets tells you where to look.

1. The trial balance adds up: total debits equal total credits, including the Sharp postings (sections 8 and 12).
2. The BOQ total of a project equals its contract value. For Villa 24 both are AED 2,108,900.00 (section 4).
3. For a posted progress bill, the debits equal the credits and the net receivable equals invoice total minus advance recovery minus advance VAT reversed minus deductions (section 8).
4. The Retention Receivable balance (1250) equals retention held on bills minus releases invoiced, per contract (section 8).
5. The Customer Advances balance (2300) equals the advance invoices minus the advance recovered on bills (section 8).
6. Goods Received Not Invoiced (2151) is zero once every receipt has a supplier invoice (section 5).
7. On the WIP report, a method A or C contract shows zero over or under billing, and a method B contract shows billed minus earned (section 10).
8. Every open snag has an owner, and the close-out list of a project that you want to close is empty (section 11).

> Source: `docs/sharp/user-guide-workflow.md` (reports by stage), `tests/Zeyto.Tests/GoldenSharpBillingTests.cs`, `src/Zeyto.Edge/Api/Sharp/SharpWip.cs`

REFERENCE

Glossary, shortcuts and quick answers

A page to keep open while you work. It explains the words Zeyto uses, lists the keys that really work, names every status you will meet, shows how numbers and dates are written, tells you where each task lives in the sidebar, and answers the questions people ask most.

1. Glossary

These are the words you meet on Zeyto screens, each in plain language. Terms are written in full, so you can match them with what the screen says.

Documents and posting

TERM	MEANING
Document	A record of something that happened, with a date and a number: an invoice, an order, a delivery note, a purchase bill.
Draft	A document you have not submitted. Nothing is posted and it has no number yet.
Submit	Post a draft. The document gets its number and its entries are written.
Posting	Writing a submitted document into your books: the accounting entries, the stock movement and the VAT.
Amend	Correct a submitted document. Zeyto reverses the old posting and posts the corrected one. The number gets a suffix such as /A1.
Cancel	Reverse a submitted document so nothing of it stays live. The document stays visible, marked Cancelled.
Reversal	An entry that cancels an earlier one by posting the opposite debit and credit. Zeyto never edits or deletes a posted entry. It adds a reversal.
Convert	Create the next document from a posted one, for example a delivery note from a sales order, carrying the lines forward.
Master	A list you set up once and pick from again and again: customers, suppliers, items, accounts, price lists.
Voucher	A document for money or a manual accounting entry: a receipt, a payment, an expense, an advance or a journal.
Quotation, Sales Order, Purchase Order	Paperwork that leads to a document that posts. They get a number but post nothing.
Proforma	Looks like an invoice but posts nothing to accounts or stock. You can convert it to a sales invoice.
Delivery Note	Records goods leaving for a customer. It takes the goods out of stock. The sales invoice bills them.

TERM	MEANING
GRN (goods receipt note)	Records goods arriving from a supplier. It brings the goods into stock. The purchase invoice follows.
Credit note	What many people call a Sales Return: a sale taken back, with its VAT and stock reversed. The supplier-side twin, a Purchase Return, is a debit note.
LPO (local purchase order)	Your customer's own order number. You can store it on an invoice, and Posting Controls can make it mandatory or warn about duplicates.
Approval	A step where a person with authority agrees to a document before it posts, when an approval rule applies.

Accounts and money

TERM	MEANING
Debit and credit (Dr, Cr)	The two sides of every accounting entry. Zeyto posts an entry only when its debits equal its credits.
Ledger (GL)	The record of every accounting entry, account by account. Entries are never edited or deleted. A correction is a new reversing entry.
Journal	A manual accounting entry with debit and credit lines that must balance.
Chart of accounts	The list of all your accounts, in groups under Assets, Liabilities, Equity, Income and Expense.
Trial balance	A list of every account's balance. Debits and credits must add up to the same total, so it is a quick check on the books.
Fiscal year	Your accounting year. A document can be posted only into a fiscal year that is open.
Opening balances	The balances you start Zeyto with: your accounts, what each customer and supplier owes by invoice, and your stock.
Advance (on account)	Money received from a customer, or paid to a supplier, not yet matched to an invoice. Zeyto keeps it and can apply it to a later invoice.
Bill-wise allocation	Matching a receipt or payment to the invoices it settles. What is left over stays on account.
Payment term	A name and a number of days, such as Net 30, that sets a document's due date.
PDC (post-dated cheque)	A cheque dated in the future. The PDC screen tracks it as Registered, Deposited, Cleared or Bounced.
Bank reconciliation	Matching your bank statement against your books and recording what differs.
Amortization	Spreading a prepaid cost, or income received in advance, over several months with an entry for each month.
Cost center, job center, project center	Optional tags on documents and journal lines to see income and costs by department, job or project. They change no amounts. Each is switched on or off in Settings ▸ Document Entry.

TERM	MEANING
Float	Cash set aside for a purpose. In petty cash it is the fund a custodian looks after. At the POS the opening float is the cash in the till when a shift starts.

Stock and items

TERM	MEANING
Unit (UOM)	The unit an item is counted in: pieces, box, kilo. An item can have other units with a conversion, such as a box of 12.
Item group and category	A group organises items for accounting and reports and can carry a default VAT code. A category organises items for selling, such as POS tiles.
Variant	A version of an item, such as a size or a colour, with its own code, barcode and price.
Serial / IMEI	A unique number on each unit. Items marked Track Serial / IMEI are received and sold by number.
Warehouse and rack	A warehouse holds stock. A rack is a position inside it.
Moving average cost (MAvg)	The default costing method: each purchase updates an item's average cost and sales take stock out at that average. FIFO and LIFO also exist.
COGS (cost of goods sold)	The cost of the stock you sold, moved from Inventory to an expense at sale or delivery.
BOM (bill of materials)	The recipe for something you make. Production Entry uses it to use up parts and add the finished item to stock.
Price list	A named set of selling or buying prices that a document can use.

VAT and tax

TERM	MEANING
VAT	Value added tax, 5% on most sales in the UAE.
TRN	Tax Registration Number: 15 digits, given by the FTA to a VAT-registered business. It prints on tax invoices.
FTA	The Federal Tax Authority, the UAE tax authority.
VAT201	The FTA's VAT return form. The Return Worksheet follows its boxes.
SR5, ZR, EX, OOS, RCM	The tax codes: standard 5%, zero rate, exempt, out of scope and reverse charge.
RCM (reverse charge)	A rule where the buyer accounts for the VAT instead of the seller, common on imports. Zeyto records it as both output and input VAT.
FAF (FTA Audit File)	A CSV of your VAT transactions for a period, which the FTA can ask for. VAT ▸ FAF Export creates it.

TERM	MEANING
Corporate tax	Tax on business profit. VAT ▸ Corporate Tax works out the amount from your books.

POS, people and the system

TERM	MEANING
Shift	The time one cashier works at a till. Opened with an opening float, closed by counting the cash. Zeyto records any cash over or short.
Z Report	The summary of one shift: gross and net sales, returns, VAT and the number of sales.
Day Close	The end-of-day step at the POS. You count the cash and Zeyto compares it with what it expected.
WPS (Wages Protection System)	The UAE system for paying salaries through banks. Employees ▸ WPS prepares the SIF file and marks it "not bank ready".
Edge	The Zeyto program on the Zeyto computer that holds your data and serves the screens.
Zeyto computer	The computer in your shop that holds your data and runs Zeyto. Other computers and phones connect to it.
Module	A part of Zeyto, such as Sales, Inventory or VAT, that your licence includes or not.
Add-on	A module your licence does not include. Its menu item shows an Add-on tag and opens an upgrade sheet.
Seat	One person signed in on one kind of device. The licence limits how many seats are used at once.
Branch	A place you trade from. Documents, the POS and users can be tied to a branch.
RBAC, RLS, FLS	Roles decide which screens and actions a person may use. Row level security limits them to chosen branches. Field level security hides a field or makes it read-only for chosen roles.
Restore-tested	A backup that was restored into a temporary copy and checked. Only these are proven to work.

> Source: `src/Zeyto.Web/src/help/content/start.ts` (page start.glossary), `src/Zeyto.Web/src/screens/nav.ts`, `src/Zeyto.Contracts/Entitlements.cs`

2. Keyboard shortcuts

Only the keys on this page are active. There is no shortcut for Save, Submit or Print on settings screens beyond Ctrl+S, and on document screens you can also use the buttons. The Designers have their own keys, shown in their help.

Everywhere in the main window

KEY	WHAT IT DOES
F1	Help for the screen you are on. Press it again, or Esc, to close it.

KEY	WHAT IT DOES
`Ctrl+K`	Search screens, items, customers and suppliers, documents, accounts and employees. Not available at the POS till.
`Ctrl+Tab`	Next workspace tab. Needs two or more tabs open. Up to 12 tabs can be open.
`Ctrl+Shift+Tab`	Previous workspace tab.
`Esc`	Closes the search, help, a menu or a pop-up window.
`Ctrl+S`	Presses the Save (or Amend) button. Nothing happens while the button is greyed out or a pop-up is open.
`Ctrl+Enter`	Presses the main Submit or Save button on screens that have one.
`Ctrl+Shift+Enter`	Presses Submit & Print.

Documents, vouchers and reports

KEY	WHERE THE CURSOR GOES
`F3`	The Customer or Supplier field on sales and purchase documents, and the party field on receipt and payment vouchers.
`F4`	The Item / Barcode box on sales and purchase documents. On stock transfers and adjustments it opens the item lookup.
`F7`	The Discount (before tax) box.
`F9`	The payment amount, on sales and purchase invoices only. It adds a payment row if there is none.
`F5`	On a report: runs it with the filters you set, instead of reloading the page.
`Enter`	Moves to the next field on document forms and vouchers. Shift+Enter goes back. An administrator can switch this off in Settings ▸ Document Entry. It does not do this in the item box, where Enter adds the line.

In any pick field the up and down arrows move through the list, Enter takes the highlighted row and Esc closes the list without changing anything. On the Expenses form and the Bill of Materials lines, Enter moves down a column, Tab moves right, Esc undoes the cell, `Ctrl+D` duplicates the row and `Alt+Delete` removes it.

At the POS till

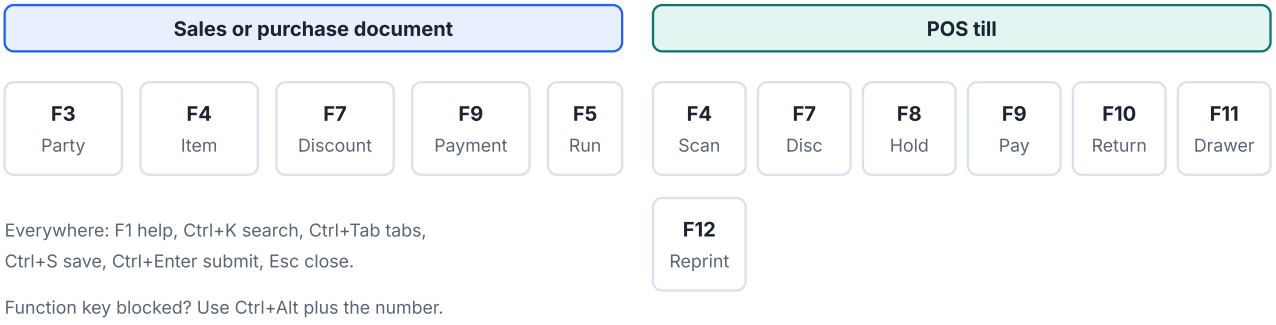
KEY	WHAT IT DOES
`F1`	Help for the till.
`F4`	The scan or search box. Press Enter there to add the item.
`F7`	A percentage discount on the selected line, or on the last line if none is selected.
`F8`	Holds the cart so you can serve someone else. Press Recall to bring it back.
`F9`	Pay. Opens the payment sheet. With nothing entered, the next F9 takes the exact amount in cash and completes the sale.

KEY	WHAT IT DOES
`F10`	Return mode on or off. A return needs a manager name and PIN, and a reason.
`F11`	Opens the cash drawer, if it is set up in Settings ▸ POS Behaviour.
`F12`	Reprints the last receipt.
`Esc`	Closes the payment sheet without selling.

When your browser already uses a function key

Hold Ctrl and Alt and press the number that matches the key. Hover over a field or button to see its shortcut.

FUNCTION KEY	FALLBACK
F1, F3, F4, F7, F9	`Ctrl+Alt+1`, `Ctrl+Alt+3`, `Ctrl+Alt+4`, `Ctrl+Alt+7`, `Ctrl+Alt+9`
F10	`Ctrl+Alt+0`
F11	`Ctrl+Alt+minus`
F12	`Ctrl+Alt+equals`



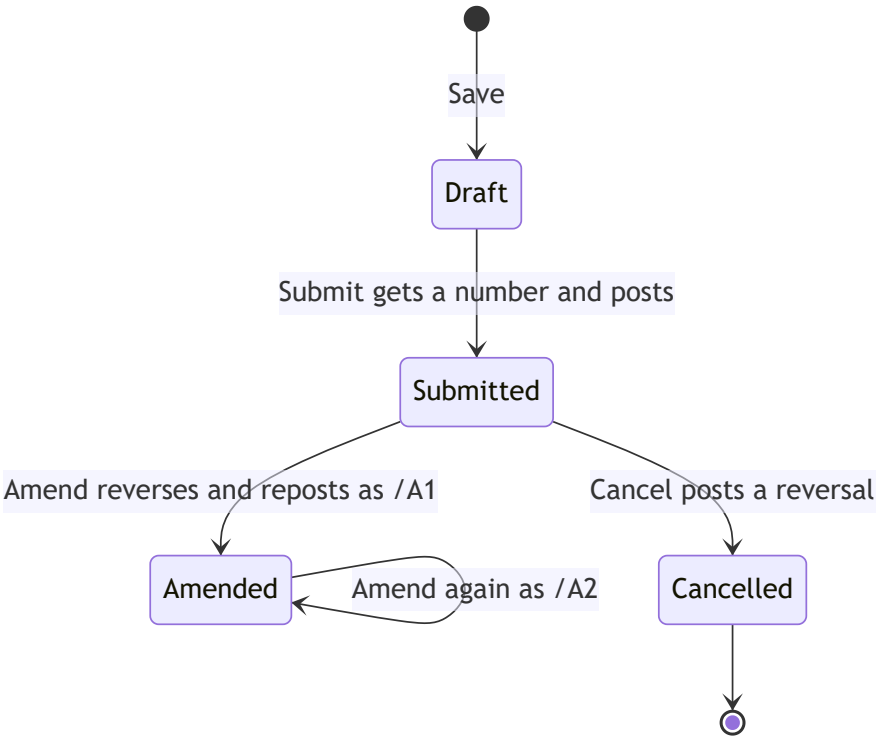
Function keys at a glance. The same key means a different field on a document and at the till. F9 is the payment amount on an invoice and the Pay key at the till.

> **TIP**
> To enter a whole invoice without the mouse: F3, pick the customer with Enter, F4, scan or type each item and press Enter, F7 for a discount, F9 for the payment, then Ctrl+Shift+Enter to submit and print.

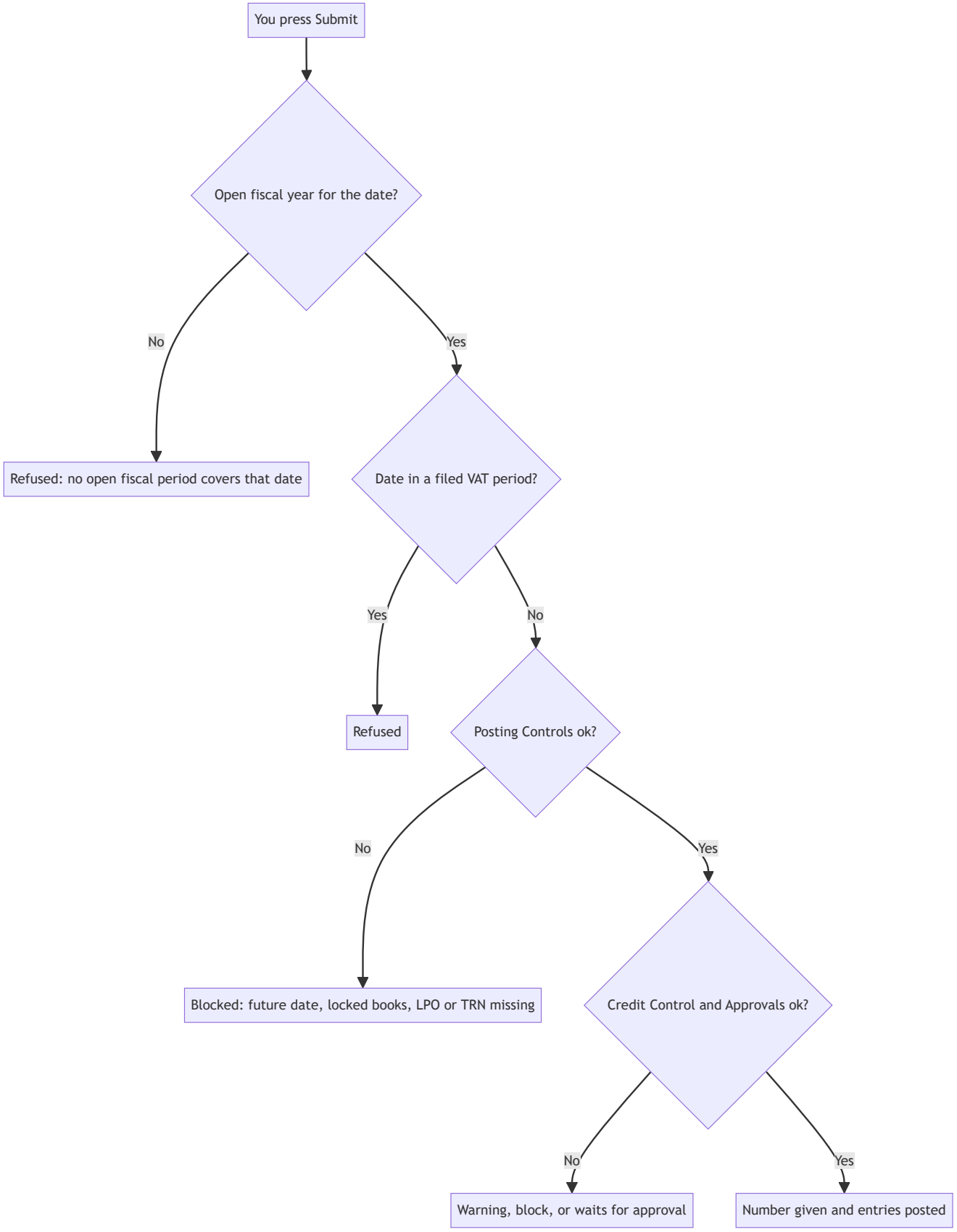
> Source: `src/Zeyto.Web/src/help/content/start.ts` (page start.keyboard-shortcuts), `src/Zeyto.Web/src/screens/Shell.tsx`, `src/Zeyto.Web/src/screens/pos/PosTerminal.tsx`, `src/Zeyto.Web/src/screens/docs/DocForm.tsx`

3. Document lifecycle and every status name

Invoices, orders, receipts and journals go through the same stages. A Draft changes nothing in your accounts, stock or VAT. A submitted document is never edited in place. If it is wrong, you Amend or Cancel it, and the original stays on record.



Document lifecycle. A cancelled document cannot be reopened. If you cancelled by mistake, create a new one. Amend and Cancel are refused while a later document was made from this one, and inside a VAT period already filed.



What can stop a Submit. Read the message on screen. It names the rule. Settings ▸ Fiscal Years, Posting Controls and Credit Control hold the switches.

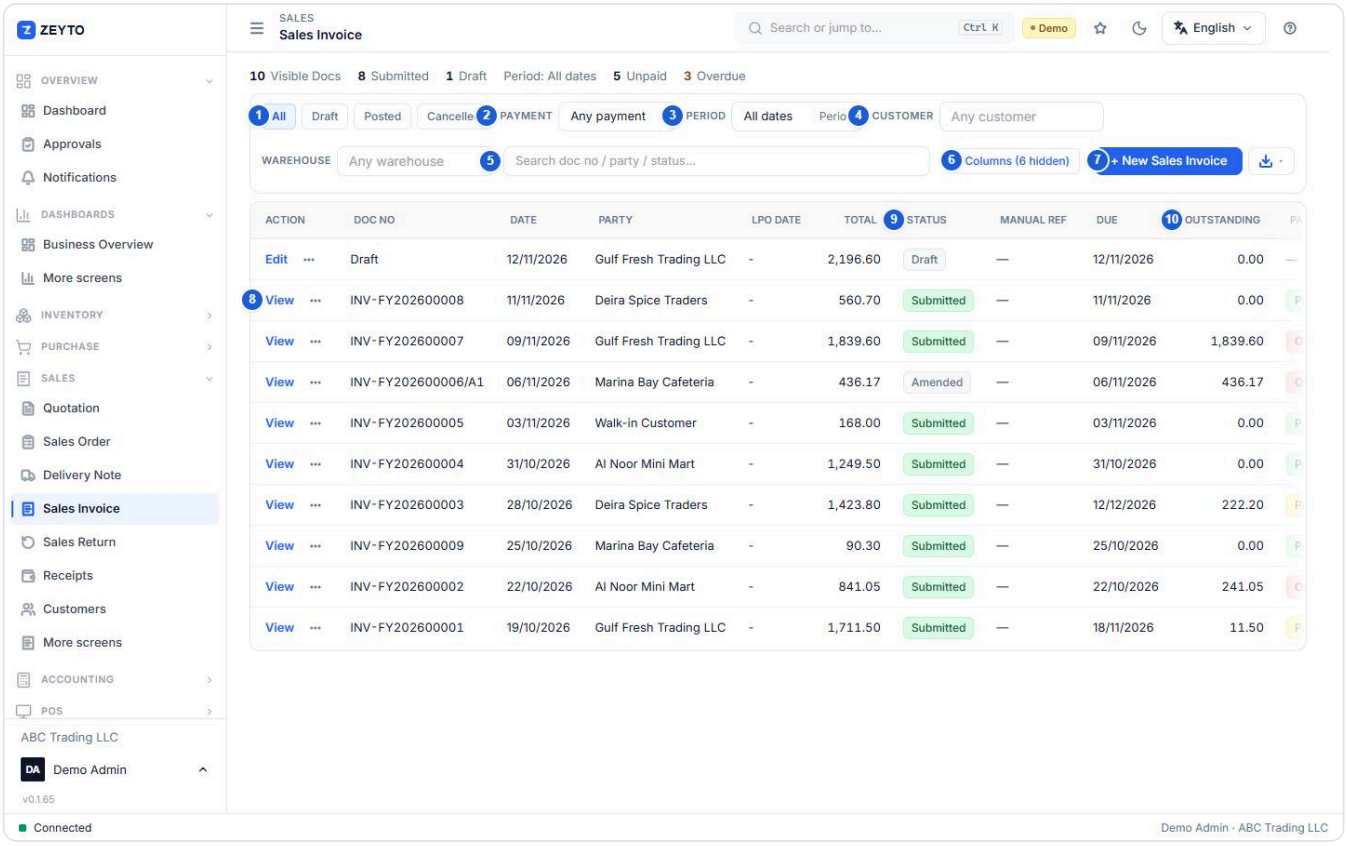
What Submit does, by document

DOCUMENT	STOCK	ACCOUNTS AND VAT
Quotation, Sales Order, Proforma, Purchase Order	None	None. A number only.
Delivery Note	Goods out	Cost of goods sold. No billing.
Sales Invoice	Goods out, unless a delivery note did it	What the customer owes or paid, the sale and the VAT.
Sales Return	Chosen goods back in	Reverses the sale, its VAT and what the customer owes.
GRN	Goods in at cost	The accounts follow with the purchase invoice.
Purchase Invoice	See the Purchase chapter	The cost, the VAT you can claim back and what you owe or paid.
Receipts and Payments	None	Money in or out, matched to open invoices. The rest stays on account.

Status names you will see

WHERE	STATUS	MEANING
Any document	Draft Saved	Saved from More ▾, not posted, no number.
Any document	Submitted	Numbered and posted. On a submitted sales invoice the main button reads Amend & Print in a paler blue.
Sales Invoice register	All, Draft, Posted, Cancelled	The filter chips at the top of the list. The Status column itself reads Draft, Submitted or Amended.
Any document	Amended	Corrected. The number ends in /A1, /A2.
Any document	Cancelled	Reversed. It cannot be changed, amended or converted.
Payroll run	GENERATED APPROVED PAID	Calculated, posted as owed, then paid. A new run reads No Run.
Commission statement	DRAFT, SUBMITTED, APPROVED, PAID, VOID	Calculated, ready for approval, booked, paid in full, taken back out.
Commission payout	POSTED, REVERSED	A payment made, or cancelled.
Post-dated cheque	Registered, Deposited, Cleared, Bounced	The stages of one cheque.
Advance tax invoice	Open, Partly applied, Fully applied, Cancelled	How much of a customer's advance has been used.
Fiscal year	Open, Closed	Closed blocks posting, amending and cancelling dated inside the year.

WHERE	STATUS	MEANING
Employee, customer, item	Active, Inactive	Inactive records are not offered on new documents but stay in history.
Import preview rows	New, Update, Unchanged, Duplicate in file, Rejected	What the Import Center will do with each row.
Backup	Not restore-tested, Restore-tested	Whether it was restored into a temporary copy and checked.
Status bar	Connected, Reconnecting, Working offline	Whether your screen can reach the Zeyto computer.

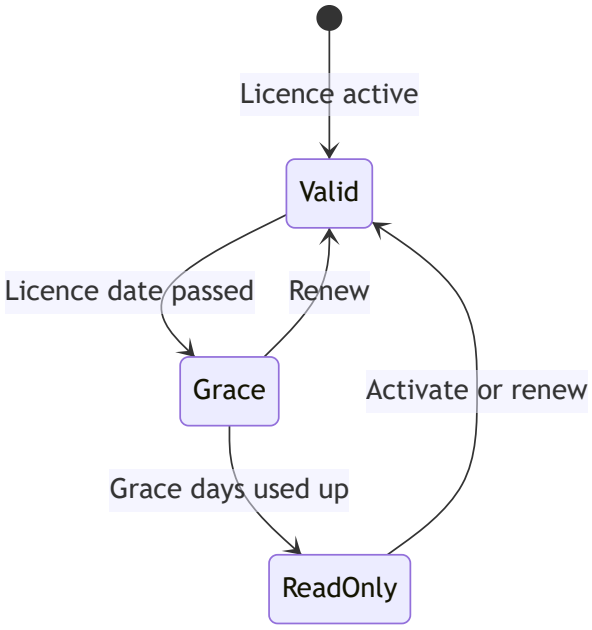


The Sales Invoice register, where the statuses show. Demo company. The line above the filters counts 10 Visible Docs, 8 Submitted, 1 Draft, 5 Unpaid and 3 Overdue. The Draft row has no number yet and offers Edit instead of View. INV-FY202600006/A1 reads Amended, and the other invoices read Submitted.

1. Status chips (All, Draft, Posted, Cancelled): show only the documents in that state.
2. PAYMENT filter: narrow the list by payment state. It reads Any payment here.
3. PERIOD filter: narrow the list to a date range. It reads All dates here.
4. CUSTOMER filter: type a customer to see only that customer's invoices.
5. Search doc no / party / status: type part of a number, a customer name or a status.
6. Columns (6 hidden): choose which columns the list shows. Six are hidden at the moment.
7. + New Sales Invoice: opens a blank invoice.
8. View: opens the invoice. A draft shows Edit here instead.
9. STATUS column: the document's state, shown as a coloured tag.

10 OUTSTANDING column: how much of the invoice is still unpaid. 0.00 means settled.

Licence and access states



Licence states. Grace shows an amber strip "Licence expired" with the days left. Read-only shows a red strip: the modules stop working until a licence is activated, but your data is safe and never deleted. View, print and export still work.

Not verified in code: the licence code also names a state called Suspect, but the in-product help does not describe it, so it is left out of the diagram.

> Source: `src/Zeyto.Web/src/help/content/start.ts` (pages start.documents-lifecycle, start.users-and-permissions), `src/Zeyto.Edge/Domain/PostingEngine.cs`, `src/Zeyto.Edge/Domain/SubmitPolicyGuard.cs`, `src/Zeyto.Web/src/help/content/employees.ts`, `src/Zeyto.Web/src/help/content/sales-commission.ts`, `docs/architecture/zeyto-architecture.md`

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4. Names, numbers, dates and the accounts you will see

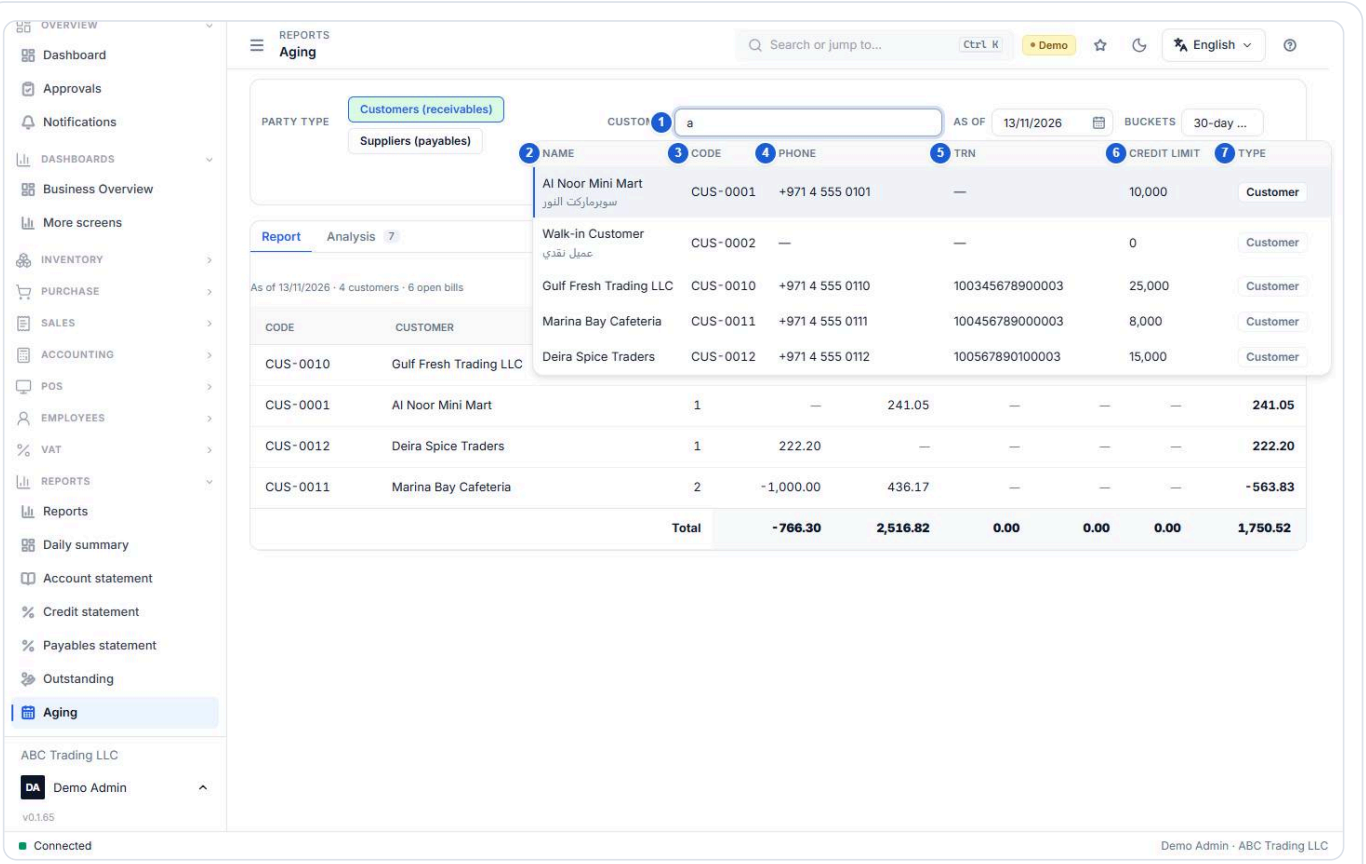
Document and record numbers

Every document type has its own number series in `Settings ▸ Numbering`. A series can also be set per branch. Its fields are Prefix, Suffix, Separator, Pad, Start No, Next No and Reset Period, and the screen has a "Sample next number" preview. A document gets its number when you Submit it, so numbers have no gaps from drafts you abandon.

THING	EXAMPLE	NOTES
Sales Invoice	INV-00001	The first invoice in the plain series used by the golden tests. The demo company in the screenshots has the fiscal year in the prefix and reads INV-FY202600001.
Amended invoice	INV-00001/A1	The suffix counts up: /A1, /A2. In the demo: INV-FY202600006/A1.

THING	EXAMPLE	NOTES
Opening Stock voucher	OST-	One per warehouse, made by Post Stock on Accounting ▸ Openings.
Item	ITM-0001	Demo data pattern. Leave Item Code to your own scheme.
Customer, Supplier	CUS-0001, SUP-0001	Empty Code on a new customer is numbered from Settings ▸ Numbering. The code is fixed once saved.
Employee	EMP-001	The pattern shown in the help.
Warehouse	WH-001	The pattern shown in the help. The seeded demo company has MAIN and VAN01.
Territory	TERR-004	Zeyto suggests the next code.

Screens show names, and pick lists find records by several fields at once. On Customers you can type words that match the code, name, TRN, phone, email, contact or city. Every word must match, in any order. A typed pick list, such as the Customer box on a report, shows the same idea in columns: Name (with the Arabic name under it), Code, Phone, TRN, Credit limit and Type.



A typed picker on the Aging report. Reports ▸ Aging, with the party type Customers (receivables), As of 13/11/2026 and 30-day buckets. After typing a in the Customer box, the list drops down with five demo customers: Al Noor Mini Mart (CUS-0001), Walk-in Customer (CUS-0002), Gulf Fresh Trading LLC (CUS-0010), Marina Bay Cafeteria (CUS-0011) and Deira Spice Traders (CUS-0012).

1. Customer picker: the box you type in. The list opens under it and narrows as you type.
2. NAME column: the customer name, with the Arabic name underneath where there is one.
3. CODE column: the customer code.

4. PHONE column: the phone number on the customer record.
5. TRN column: the customer's tax registration number. It is blank for Walk-in Customer.
6. CREDIT LIMIT column: the limit set on the customer, 0 for none.
7. TYPE column: a tag showing what kind of record it is, here Customer.

Dates, times and numbers

ITEM	HOW IT WORKS
Date format	Set in `Settings ▸ Regional`. The default is dd/mm/yyyy. Other choices are dd-mm-yyyy, dd.mm.yyyy, yyyy-mm-dd and mm/dd/yyyy.
Clock and time zone	12-hour or 24-hour clock. The default time zone is Asia/Dubai.
Number grouping	Western (1,050.00), Indian, or none.
Stored dates	Dates are stored as yyyy-mm-dd. Timestamps are stored in UTC. Only the display follows Regional.
Dates in an import file	Write YYYY-MM-DD. A day-first date such as 15/12/2025 and an Excel date cell are also accepted.
Money	2 decimals for most currencies. Some currencies (KWD, BHD, OMR) have 3. The base currency is set in Company Profile and should be chosen before the first document.
Quantities and costs	Quantity 4 decimals. Cost Rate on opening stock 6 decimals. In an import, amounts take 2 decimals, quantities 4, unit prices and costs 4, rates 6. A number with more decimals is rejected, never rounded.
VAT rounding	Half up, per line. 5% of 92.50 is 4.625 and becomes 4.63, so the gross is 97.13.
Foreign currency	Amount times the rate, rounded to base currency. USD 10,000 at 3.6725 is AED 36,725.00. USD 1,000 is AED 3,672.50.

WARNING

On the Payment Details of an invoice of 1,000 or more, an amount typed with a comma, such as 1,050.00, is read as nothing. Retype it without the comma, or use the Full payment buttons.

Accounts you will see on journals

These are the accounts that the demo company ships with, and the ones the examples in this handbook use. Codes are shown beside names. Your chart may add more, and system accounts are locked.

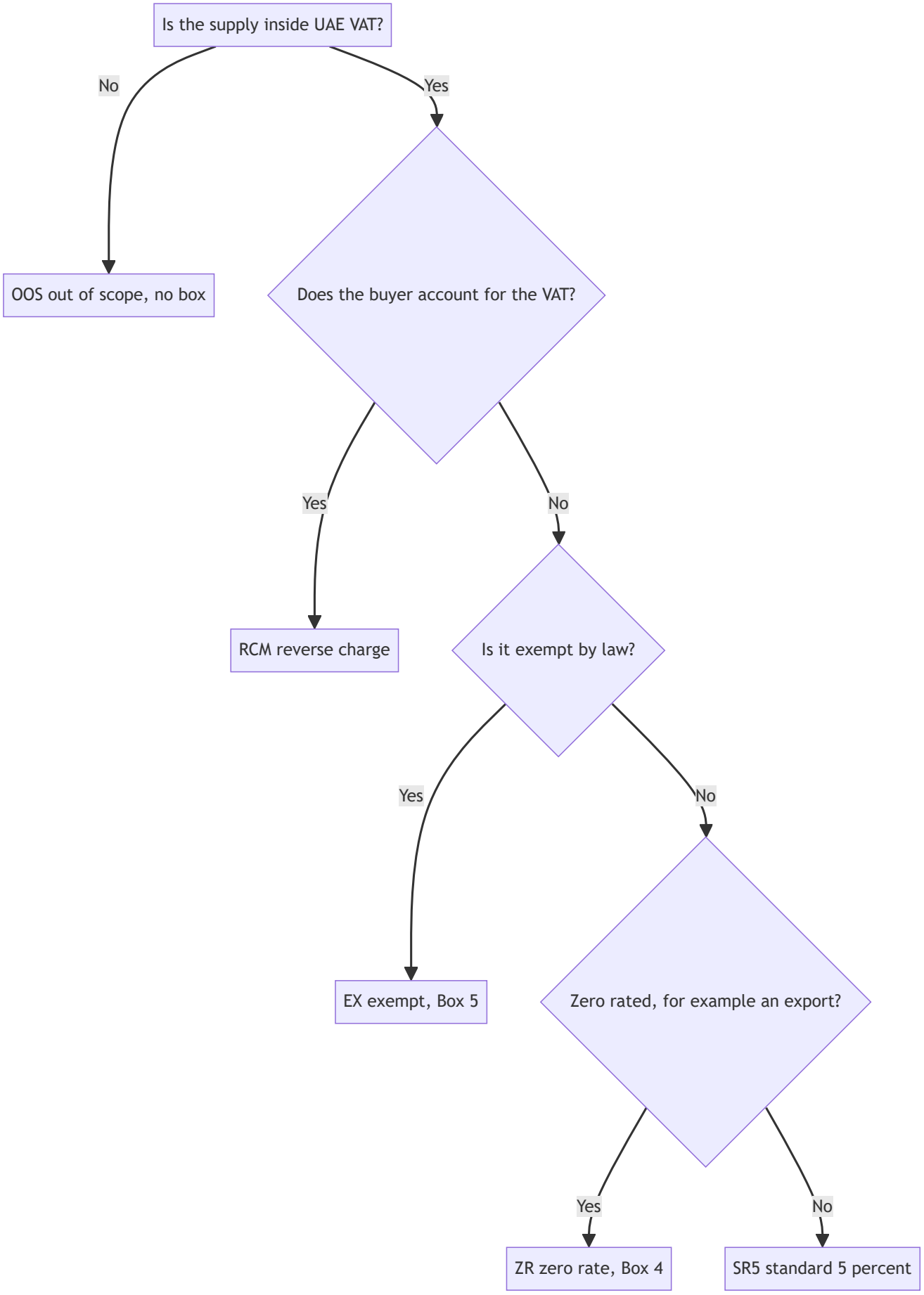
CODE	NAME	USED FOR
1000	Cash in Hand	Cash sales, cash advances

CODE	NAME	USED FOR
1010	Petty Cash	The petty cash fund
1100	Bank, Current Account	The default bank ledger
1110	Card Clearing	Card sales waiting for the acquirer
1200	Trade Receivables	What customers owe
1300	Inventory	Stock at cost
1400	VAT Input	VAT you can claim back
1450	Supplier Advances	Money paid ahead to suppliers
1460	Employee Advances	Staff advances
1465	Commission Advances	Advances against commission (created by the Commission settings)
2100	Trade Payables	What you owe suppliers
2200	VAT Output	VAT you collected
2300	Customer Advances	Money received ahead from customers
2400	Accrued Expenses	Costs owed but not billed
2410	Commission Payable	Approved commission not yet paid
2500	Salaries Payable	Payroll approved and not yet paid
2600	Gratuity Provision	Seeded, no screen posts to it
3000	Owner's Capital	Capital
3200	Retained Earnings	Profit brought forward
3900	Opening Balance Suspense	Holds the difference when openings do not balance
4000	Sales	Revenue
4100	Sales Returns	Returns
4910	Realized FX Gain/Loss	Exchange differences on settlement
4920	Rounding Difference	Invoice rounding
5000	Cost of Goods Sold	Cost of what you sold
6100	Salaries & Wages	Payroll cost
6120	Sales Commission Expense	Commission cost

> Source: `src/Zeyto.Edge/Data/migrations/0009-seed-core.sql`, `src/Zeyto.Edge/Data/migrations/0017-payroll-ledger-links.sql`, `src/Zeyto.Edge/Api/CommissionApi.cs`, `src/Zeyto.Web/src/help/content/settings-company.ts`, `src/Zeyto.Web/src/help/content/settings-operations.ts`, `tests/Zeyto.Tests/GoldenPostingTests.cs`, `tests/Zeyto.Tests/GoldenOpeningBalanceTests.cs`

5. Choosing a tax code

You pick a tax code on every document line, and Zeyto does the arithmetic. The code decides how the VAT is treated and which box of the VAT return it lands in. The default comes from the item, then the item group, and you can change it on the line. A line keeps the code it was given when it was entered, so changing an item's code later does not change saved, posted or filed documents.

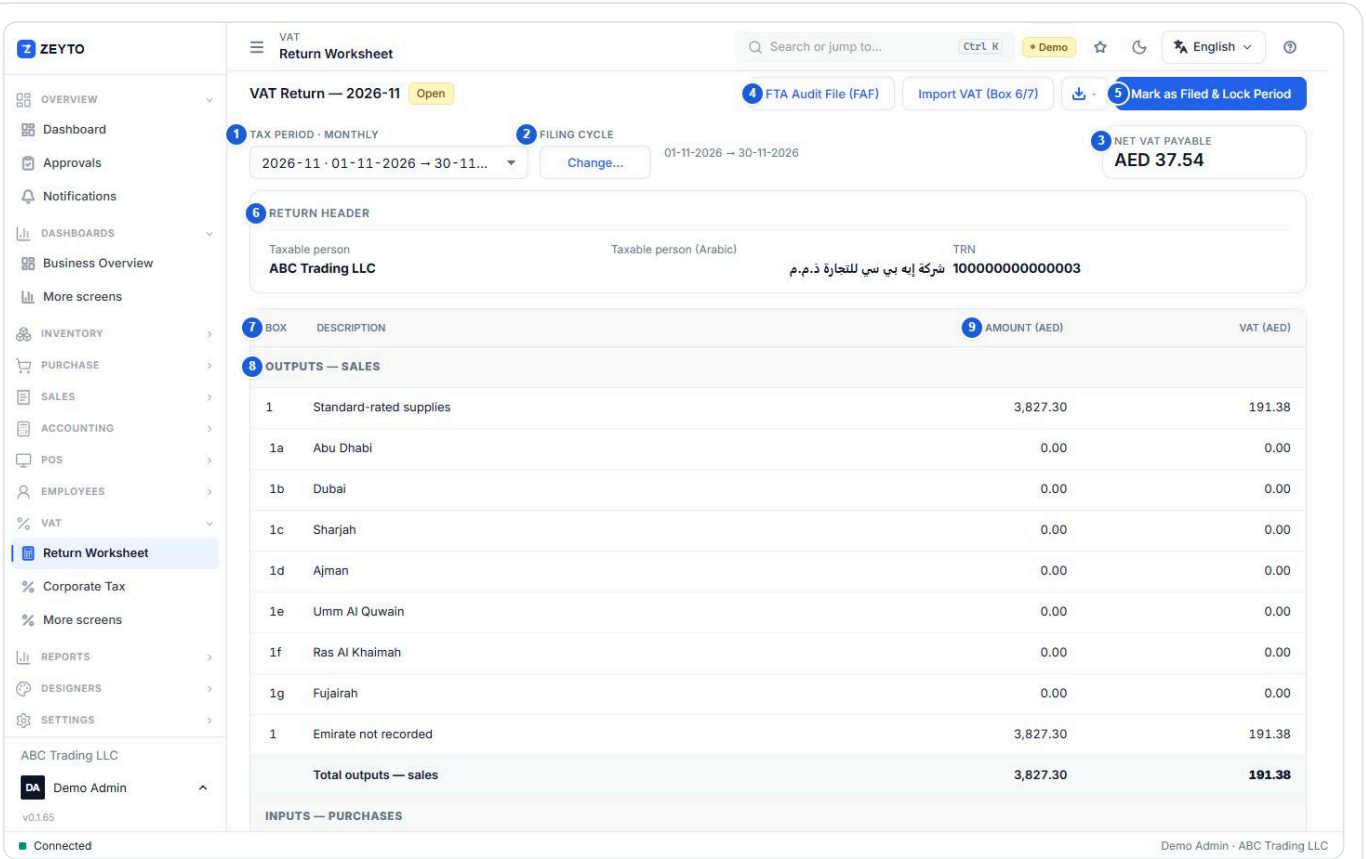


Which code to pick. This is a thinking aid built from the definitions of the codes. Your accountant decides the treatment. Zero rate and exempt both show 0.00 on the invoice but go to different boxes, so

the wrong one files a wrong return. A customer's own tax treatment does not change the code by itself. You change the line.

CODE	MEANING	VAT RETURN BOX
SR5	Standard rate, 5%	Box 1 for sales, Box 9 for purchases
ZR	Zero rate, 0%. Still reported: exports and some other supplies	Box 4
EX	Exempt. Not the same as zero rate	Box 5
OOS	Out of scope	No box
RCM	Reverse charge. The buyer accounts for the VAT	Box 3 on sales, Box 10 on purchases

Import VAT (customs declarations for imported goods) feeds Box 6 and Box 7, and the VAT you can claim back in Box 10. The Return Worksheet is VAT ▸ Return Worksheet, and the FTA Audit File (FAF) and Import VAT (Box 6/7) buttons sit beside the filing button at its top right. Zeyto prepares the figures. It has no button that sends the return to the FTA. After you file with the FTA yourself, press `Mark as Filed & Lock Period`. That locks every month of the period and there is no button to reopen it.



VAT ▸ Return Worksheet. The demo return for 2026-11, status Open, period 01-11-2026 to 30-11-2026. The first section, Outputs - Sales, shows box 1 Standard-rated supplies 3,827.30 with VAT 191.38, the emirate rows 1a to 1g at 0.00 and the row Emirate not recorded carrying the same 3,827.30 and 191.38. The Inputs - Purchases section starts below the picture.

1. TAX PERIOD - MONTHLY: the period you are preparing. Pick another from the list.
2. FILING CYCLE: the cycle the return follows. Press Change... to alter it.
3. NET VAT PAYABLE: the result for the period, AED 37.54 here.
4. FTA Audit File (FAF): exports the audit file for the period.

5. Mark as Filed & Lock Period: press it after you have filed with the FTA yourself. It locks the period.
6. RETURN HEADER: the taxable person in English and Arabic and the TRN.
7. BOX column: the VAT 201 box numbers.
8. OUTPUTS - SALES: the sales side of the return, from box 1 downward.
9. AMOUNT (AED) and VAT (AED) columns: the taxable amount and the VAT for each box.

> Source: `src/Zeyto.Web/src/help/content/start.ts` (page start.vat-basics), `src/Zeyto.Web/src/screens/settings/TaxManagement.tsx`, `src/Zeyto.Edge/Api/VatApi.cs`, `src/Zeyto.Edge/Data/migrations/0009-seed-core.sql`

6. Where do I find it?

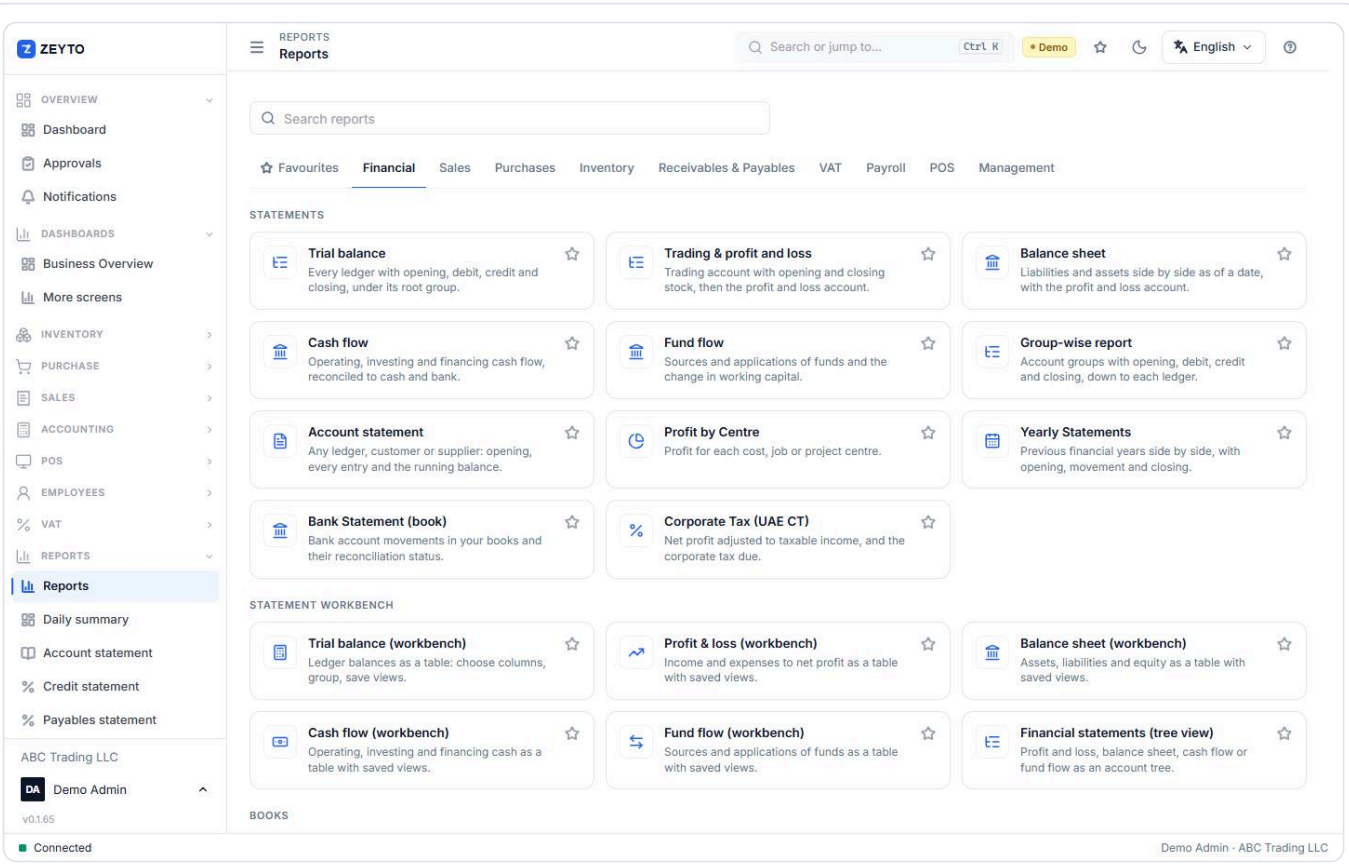
The sidebar is grouped by module. By default it shows the essential screens of each group and a "More screens" hub. To see every screen, open `Settings ▸ Theme Engine ▸ Appearance` and set Menu to Full. Press `Ctrl+K` to search any screen by name.

I WANT TO	GO TO
Make a sale	`Sales ▸ Sales Invoice`
Quote a customer	`Sales ▸ Quotation`
Take money from a customer	`Sales ▸ Receipts`
Take back goods from a customer	`Sales ▸ Sales Return`
Add or edit a customer	`Sales ▸ Customers`
Buy from a supplier	`Purchase ▸ Purchase Order, Goods Receipts, Purchase Invoice`
Add or edit a supplier	`Purchase ▸ Suppliers`
Add freight or delivery types	`Settings ▸ Expense Types`
See how freight changed stock cost	`Purchase ▸ Landed Cost`
Add or edit an item	`Inventory ▸ Items`
Add groups, categories, brands, units	`Inventory ▸ Masters`
Add a warehouse	`Inventory ▸ Warehouses & Racks`
Move stock between warehouses	`Inventory ▸ Transfers`
Correct a stock count	`Inventory ▸ Adjustments`
Print barcode labels	`Inventory ▸ Print Labels`
Manage price lists and discounts	`Inventory ▸ Price Lists, Discounts`

I WANT TO	GO TO
Look at the chart of accounts	`Accounting ▸ Chart of Accounts`
Enter a manual journal	`Accounting ▸ Journals`
Enter opening balances	`Accounting ▸ Openings`
Record an expense	`Accounting ▸ Expenses`
Manage bank accounts and cheques	`Accounting ▸ Bank Accounts, Banking, Post-dated Cheques, Cheque Print`
Reconcile the bank	`Accounting ▸ Bank Recon`
Run petty cash	`Accounting ▸ Petty Cash` and the PC screens
Run depreciation	`Accounting ▸ Fixed Assets ▸ Depreciation Run`
Close the year	`Accounting ▸ Period End ▸ Year-End Close`
Sell at the till	`POS ▸ POS Terminal`
Close a shift or the day	`POS ▸ Shifts, Z Report, Day Close`
Prepare the VAT return	`VAT ▸ Return Worksheet`
Export the FTA audit file	`VAT ▸ FAF Export`, or the FTA Audit File (FAF) button on the Return Worksheet
Work out corporate tax	`VAT ▸ Corporate Tax`
Run payroll	`Employees ▸ Payroll`
Give a staff advance	`Employees ▸ Advances`
Prepare the WPS file	`Employees ▸ WPS`
Pay sales commission	`Sales ▸ Commission`
Open any report	`Reports` (or press Ctrl+K)
See what one document posted	`Reports ▸ Posting Trail` (under Reports ▸ More screens in the short menu)
Approve a document	`Overview ▸ Approvals`
Set my company details and TRN	`Settings ▸ Company Profile`
Add a fiscal year	`Settings ▸ Fiscal Years`
Change a document number format	`Settings ▸ Numbering`
Change the date format	`Settings ▸ Regional`
Stop future-dated or locked-period posting	`Settings ▸ Posting Controls`
Set how negative stock behaves	`Settings ▸ Costing ▸ Negative Stock`

I WANT TO	GO TO
Warn or block on credit limits	`Settings ▸ Credit Control`
Load data from a spreadsheet	`Settings ▸ Import Center`
Add a user or change a role	`Settings ▸ Users & Permissions`
See who did what	`Settings ▸ Audit Log`
Take or restore a backup	`Settings ▸ Backup`
Connect a phone or work away from the shop	`Settings ▸ Remote & Mobile Access`
Check the licence and seats	`Settings ▸ License`
Switch to demo or training data	`Settings ▸ Data Mode`
Design a printout	`Designers ▸ Documents` and `Labels`

The Reports screen opens as a catalogue. Tabs along the top split it into Favourites, Financial, Sales, Purchases, Inventory, Receivables & Payables, VAT, Payroll, POS and Management. A Search reports box finds a report by name, and every report card has a star.



Reports, the catalogue. The Financial tab is open. Under the heading Statements are cards for Trial balance, Trading & profit and loss, Balance sheet, Cash flow, Fund flow, Group-wise report, Account statement, Profit by Centre, Yearly Statements, Bank Statement (book) and Corporate Tax (UAE CT). The heading Statement Workbench starts below with the workbench versions, such as Trial balance (workbench). Each card has a one-line description and a star.

> Source: `src/Zeyto.Web/src/screens/nav.ts`, `src/Zeyto.Web/src/help/content/start.ts` (pages start.finding-your-way, start.group)

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7. Quick answers

Each answer comes from the help pages that ship with Zeyto, or from the code the help was written from. Press `F1` on any screen for the full page.

Documents

QUESTION	ANSWER
1. How do I correct a posted invoice?	Open it from its register, change what is wrong and press Amend. Zeyto reverses the old posting and posts the new one. The number ends in /A1.
2. Can I delete a posted invoice?	No. Use Cancel, in More ▾ on the open document. A reversal is posted and the document stays visible as Cancelled.
3. I cancelled by mistake. Can I reopen it?	No. A cancelled document cannot be reopened. Create a new one.
4. Why is Amend or Cancel refused?	A later document was made from this one (cancel that first), a receipt or return is applied to it, or its date is inside a VAT period you already filed.
5. Why is Print greyed out?	The document is not submitted yet. Print works once it has a number.
6. What does a Draft do?	Nothing. No stock, no accounts, no VAT and no number. Save it from More ▾ and finish it later from its register.
7. What happens after I press Submit?	By default the button reads Submit & Print and opens the print page. Settings ▸ Document Entry ▸ After posting can change that to Open a preview or Do nothing.
8. Where can I see what Submit will post?	Under the Totals box, open Accounting impact. It is a preview worked out from the screen. The real figures are worked out when you submit.
9. Why does Submit say no open fiscal period covers the date?	No fiscal year is Open for that date. Add or open one in Settings ▸ Fiscal Years.
10. Why does the list show only some documents?	A register loads the newest 100 documents and starts on This month. Change the date range to Last 30 days or All dates, or search.
11. Submit stopped with "needs approval".	An approval rule applies. After the approver agrees in Overview ▸ Approvals, open the document and press Submit again.

Tax

QUESTION	ANSWER
12. Where do I enter my TRN?	Settings ▸ Company Profile. It must be exactly 15 digits. Leave it empty if you are not VAT-registered.
13. Does Zeyto file my VAT return?	No. It prepares the figures in VAT ▸ Return Worksheet. You file with the FTA yourself, then press Mark as Filed & Lock Period.

QUESTION	ANSWER
14. Can I reopen a filed period?	No button does it. Submit, Amend and Cancel are refused for dates inside it.
15. Filing is blocked by a red strip.	Some lines have no tax code. Fix those documents first.
16. How do I zero-rate one line?	In the Tax column of the line pick ZR. The customer's tax treatment does not change the code by itself.
17. What is the difference between ZR and EX?	Both show 0.00 on the invoice. ZR goes to Box 4, EX to Box 5. The wrong one files a wrong return.

People and access

QUESTION	ANSWER
18. A menu item or button is missing.	Open Settings ▸ Users & Permissions ▸ Security Map. Licence Module names the module the shop needs. Required Permission names what a role needs. An Add-on tag means the licence lacks the module.
19. A screen says Access Restricted.	Your role or licence does not include it. Nothing is loaded. Press Open Dashboard to leave.
20. Someone forgot their password.	An administrator types a new one in Reset Password on Users & Permissions and presses Update. The person is signed out everywhere. If nobody can sign in, the Forgot password link on the sign-in page points to Reset Zeyto login in the Start Menu of the Zeyto computer.
21. A strip says Licence expired.	Zeyto keeps working in full for the grace days shown. Press Renew in the strip. After the grace days a red read-only strip appears. Your data is safe and never deleted, and view, print and export still work.
22. Who is using my licence seats?	Settings ▸ License shows the seats in use for desktop, web and mobile.
23. Does payroll post when I press Calculate?	No. Approve Payroll posts one journal and Pay Payroll posts the payment.
24. Why is commission empty?	Calculate sales commission is off by default. Switch it on in Settings ▸ Commission.

Stock, customers and data

QUESTION	ANSWER
25. Can I sell more than I have in stock?	It depends on Settings ▸ Costing ▸ Negative Stock: Block, Warn or Ignore. It starts on Warn. A warehouse with Allow Negative overrides Block.
26. A customer is over the credit limit.	Settings ▸ Credit Control decides whether Zeyto warns or blocks. It warns by default. A credit limit of 0 means no limit.

QUESTION	ANSWER
27. How do I retire a customer or item?	Set it to Inactive. Records are never deleted. Inactive ones are not offered on new documents but stay in history.
28. The Import Center rejected my rows.	Press Download rejects. It holds your columns plus Line, Import status and Reason. Fix and import again. The first data row is line 2. Load groups before items.
29. Can I undo an import?	Yes. In Import history press Roll back. Records the run only updated are not changed back.
30. My Excel file will not load.	Old .xls files are not supported. Save as .xlsx, or use the CSV template.
31. Why did my customer import clear fields?	The Import CSV/XLSX button on the Customers screen updates by code and clears every field the sheet does not carry. Edit existing customers on screen.
32. My opening balances do not balance.	The difference parks on 3900 Opening Balance Suspense. Check the tile on Accounting ▸ Openings. Each part posts once per fiscal year.

Backup, devices and display

QUESTION	ANSWER
33. How do I back up?	Settings ▸ Backup. Turn on Run a daily backup automatically, or press Run backup now. A backup passphrase of at least 12 characters is typed twice.
34. How do I know a backup works?	Press Restore, then Check this backup. It restores into a temporary copy and marks it Restore-tested. A backup shown as Not restore-tested is unproven.
35. How do I move to a new computer?	Back up, install Zeyto Server on the new computer, restore, then release the old computer in the portal and activate the licence in Settings ▸ License, then run Restart Zeyto Edge. The other order wastes a licence slot.
36. The phone app will not load away from the shop.	An app older than 0.3.3 cannot load through the relay. Install 0.3.3 by hand. The phone pairing code works for 5 minutes.
37. The F key does nothing.	Your browser or computer uses it. Use Ctrl+Alt plus the number.
38. The banner says DEMO / TRAINING MODE.	Data Mode is on Demo. Switch to Live in Settings ▸ Data Mode.
39. Which languages exist?	English, Arabic (right to left), Hindi, Urdu and Malayalam. Only Arabic has built-in translations. Add others in Settings ▸ Translations.
40. The bottom bar says Working offline.	Your screen cannot reach the Zeyto computer. Daily work, printing and backup need no internet. The internet is used only for licence renewal, update checks, WhatsApp and email sending, and remote access.

> Source: `src/Zeyto.Web/src/help/content/start.ts`, `src/Zeyto.Web/src/help/content/sales-documents.ts`, `src/Zeyto.Web/src/help/content/sales-other.ts`, `src/Zeyto.Web/src/help/content/settings-operations.ts`, `src/Zeyto.Web/src/help/content/employees.ts`, `docs/architecture/zeyto-architecture.md`, `docs/operations/system-map.md`

8. Numbers worth knowing

FACT	VALUE
TRN length	Exactly 15 digits
Standard UAE VAT rate	5%
Workspace tabs open at once	Up to 12
Documents loaded by a register	The newest 100
Advances shown on the Advances list	The newest 300
Backup passphrase	At least 12 characters, typed twice
Default backup location	`Documents\Zeyto Backups\*.pgdump`
Customer data on the Zeyto computer	`C:\ProgramData\Zeyto\`
Phone pairing code lifetime	5 minutes
Desktop pairing code	Form XXXXX-XXXXX, valid 15 minutes, up to 20 PCs
Company image upload limit	PNG, JPEG or WebP, up to 1 MB
Employee document warning	Compliance screen 90 days, Employees list 60 days
Default Edge address	Port 8443 on the Zeyto computer, with firewall rule "Zeyto Edge LAN 8443"
Gratuity cap	24 times the monthly basic salary
WPS file name	`WPS-YYYY-MM.sif`
Start Menu items	Zeyto ERP, Zeyto POS, Zeyto LAN URL, Restart Zeyto Edge, Back up Zeyto data, Restore Zeyto data, Reset Zeyto login

> Source: `docs/operations/system-map.md`, `docs/architecture/zeyto-architecture.md`, `src/Zeyto.Web/src/help/content/start.ts`, `src/Zeyto.Web/src/help/content/employees.ts`, `src/Zeyto.Web/src/help/content/settings-company.ts`