Tail-Spend Pricing Engine

A guide to the demonstration · ABL Digital Technologies

> **What this is.** A working engine, not a presentation. It holds **317,885 real supplier offers** gathered from the open market and matched against **879 tail-spend items** from a manufacturer's own catalogue. Every price came from a supplier's own published page. Nothing is invented; where a figure is illustrative, this guide says so. The manufacturer is shown as **XYZ LLC**.

Getting in

ADDRESS	`https://tailspend.abldigitech.com`
USERNAME	ABL
PASSWORD	ABLDemo

Any browser, nothing to install. Both are case-sensitive.

This is one shared demonstration. Everyone signed in sees the same orders, and **Clear demonstration data** clears them for everyone. If the screens show somebody else's order, it is theirs; your own uploads appear beside it.

The three files

The demonstration uses three files, **sent on request** — write to the address at the end of this guide.

FILE	WHAT IT IS
`XYZ-demo-engine-config-50.xlsx`	**The catalogue.** 50 parts, deliberately mixed: **25** the engine can price, **10** that need one attribute confirmed first, **15** it cannot price at all. The last column says which is which.
`XYZ-demo-daily-orders-25.xlsx`	**The day's requirements.** 25 lines in the shape of an SAP purchase-requisition (ME5A) export. They are the 25 priceable parts above, so the demonstration reads as one story.
`XYZ-demo-vendor-price-list-NEW-VENDOR.csv`	**A vendor's price list.** 5 lines from a new supplier, DEF TRADING LLC, to show what happens when somebody new quotes.

The demonstration, in order

1 Load the catalogue. `Inputs → Engine configuration file`

Upload the 50-item file. The engine shows how it will read each column before anything is added, then registers the file. These 50 parts are already among the 879 it holds, so the item count does not change. What matters is the mix: **the 15 it cannot price are the point of the file.** A tool that only showed its successes would tell you nothing about the rest of a catalogue.

2 See why an item cannot be priced yet. `Engine → Enrichment`

Some items state no size, so nothing can be confirmed or ruled out and every offer stops at “right family”. But the *offers* state sizes. This screen lists the values suppliers actually published for each waiting item, and asks a person to confirm one.

A confirmation is recorded with who made it and on what evidence. On this demonstration server it takes effect at the next re-grade, which we run, and the item then prices. Nothing is assumed on the buyer’s behalf: a person decides, once, and the engine remembers.

3 Load a day’s requirements. `Inputs → Daily order file`

Upload the 25-line file and choose which suppliers to price from: **UAE**, **India** or **All**. Every price is shown in AED; Indian prices carry a 3% currency-conversion allowance. Measured on 31 October 2026: with **All**, every one of the 25 lines is priced and 18 have three places to buy; with **UAE** suppliers only, 20 of the 25 are priced.

4 Read the comparison and choose. `Review & select`

Each option shows the **landed** cost — goods plus delivery, spread over the line quantity, because delivery is charged per shipment and not per unit. Beside it sits **the buyer’s own last purchase price**, so every answer can be held against their own number. With All suppliers, 21 of the 25 lines come in below it.

The cheapest is **pre-selected, never auto-ordered**. Change any of them, then confirm. The UAE / India / All switch re-prices the same order from the other market.

5 Take the output. `Output → SAP file & POs`

Two ways out: hand SAP a sourcing decision and let SAP raise the order, or raise the purchase orders here. The engine never orders anything itself.

6 Start again. `Inputs → Clear demonstration data`

Removes uploaded configuration files and **every** order run, so the same files work again. It touches nothing else — not the catalogue, not the archive, not a confirmed enrichment. Remember it clears the orders of anyone else using the demonstration too.

Two things worth doing after that

A vendor sends a price list. `Vendors & price lists`

Add a vendor, give it any name, then upload `XYZ-demo-vendor-price-list-NEW-VENDOR.csv`. Return to the order and press **Re-price this order**. With All suppliers, the recommendation moves to the new vendor on 5 lines; with UAE suppliers, on 2.

The file is graded by the same grader that judges a discovered price. **A vendor's own price gets no special standing:** a row the grader cannot place is held back and counted, never attached on the vendor's say-so.

A vendor changes a price while you watch. `Review & select`

A demonstration supplier, **ABC LLC**, publishes its price list at `abldigitech.com/tailspend`, and two lines of the order carry an ABC LLC option. In a guided session we change a price on that page; you press **Refresh vendor quotes** on the order.

The engine re-reads that one supplier and the recommendation moves. No file changes hands and nobody retypes a number.

Everything else on the menu

Worth a look in roughly this order. Each screen states what it is honest about.

SCREEN	WHAT IT ANSWERS
Product lines	Every product with three or more prices, by market. A product line is a specification, any brand. 1,029 UAE products are **verified** as one specific item with three or more separate prices; the other lines are built by rule and can still mix close variants. An order line the engine cannot price itself is offered its product line's cheapest prices, marked as such.
Coverage	How far automated price discovery actually reaches: today 552 of the 879 items have a quotable price. Every part is counted, including the ones nothing was found for — **the share a tool can reach is the finding**, and a funnel that hides its own misses is worthless.
Savings	Lowest credible discovered price against what was last paid, per line. This is the number that decides whether the engine pays for itself.
Parts	Every part and what the sweep returned for it. Parts with no result are listed too, not filtered away.
Data quality	How much of each item the material master actually says. **Price discovery cannot beat the quality of this table** — a line reading `PULLEY CODE:MTD34004995` does not say what the pulley is.
Cross-reference	What a machine-builder's internal code actually is. No public database translates one, but the aftermarket states it constantly, one product title at a time.
Suppliers	Who answered, and how usefully. A supplier returning thousands of listings and pricing none is noise. Concentration is itself a procurement risk.
New suppliers	The engine can only search suppliers it has been told about. A distributor opening tomorrow is invisible — and that failure is silent, which is why this screen exists.
Vendor preferences	The engine ranks on landed cost because that is what it can measure. It cannot see a framework agreement, local stock, payment terms, or a vendor somebody fell out with. **Those are the buyer's to state here**, and orders then default to the preferred vendor.

How a price earns its place

Every offer is graded on evidence, and the grade is always shown.

GRADE	WHAT IT MEANS
CONFIRMED	The part number matches and the offer agrees on what it is — **or every rating the item states agrees, with nothing conflicting, whoever made it.**
PROBABLE	The maker matches, and either a rating or the product type agrees.
EQUIVALENT	Same kind of part and **some** of its ratings agree, from a different maker. If they *all* agreed it would be CONFIRMED. A product-line price is offered at this grade, with the line named.
FAMILY / WEAK	Shown for reference, never quoted as a price. A stated rating that DISAGREES lands here, however well the rest matches.

Only the first three are ever offered as a price. Every option carries its grade, its supplier, the source page, and how the delivery figure was arrived at.

The specification identifies the part, not the maker's name. A commodity part is what its ratings say it is: an offer agreeing on every rating the item states is CONFIRMED even from a maker the buyer has never used, and a maker's name alone never gets past PROBABLE. That is deliberate, and it is why a UAE market with almost no original manufacturing can still be priced — the buyer is buying a 100 A four-pole isolator, not a brand.

What is real, and what is not

REAL	ILLUSTRATIVE
The manufacturer's material codes and descriptions Its last purchase prices All 317,885 supplier offers and their prices Delivery costs, from sellers' own quotes The incumbent vendors, from its purchase history	**The company name** — shown as XYZ LLC **Order quantities** — these are not in anything supplied to us, so they are derived from the material code **ABC LLC** and **DEF TRADING LLC** — demonstration suppliers we operate, so a live price change can be shown. Their prices are derived from real ones.

Honest limitations

- **One shared demonstration.** There are no separate accounts: everyone signed in works on the same orders, and anyone can clear them. Work is kept across restarts of the server, but not if somebody clears it. Download anything you want to keep.
- **Two features are switched off here.** Converting an unreadable price list, and searching for a supplier where none exists, both run on our own machine and are not available on this server.
- **An enrichment takes effect at the next re-grade**, which we run, not the moment it is confirmed.
- **Coverage is not complete.** 552 of the 879 items have a quotable price today. Where the engine has nothing, it says so rather than guessing.
- **Quantities are illustrative**, as above.

> **If something looks wrong, it probably is — please say so.** The engine is built to be checked, which is why every price carries its evidence. A line that looks implausible to somebody who knows the part is the most useful thing you can point at, and several real defects have already been found exactly that way.

Prepared by ABL Digital Technologies. Figures measured on the live demonstration on 31 October 2026. Questions, and anything that looks wrong, to **bijuk@iitbombay.org**.