CASE STUDY · AEROSPACE MANUFACTURER · INVENTORY CONTROL

Turning on traceability for parts already on the shelf

A guided tool that converts stocked parts to lot and serial traceability through the ERP's own transaction API, with the operator typing only what is on the tag.

ERP integration | Traceability | Inventory accuracy | Guided workflow

INDUSTRY
Aerospace manufacturing

TEAM
Inventory control and quality

DELIVERED AS
Guided web tool for the stockroom

CONNECTED TO
ERP inventory database and transaction API

THE PROBLEM

What was getting in the way

- Many parts had been stocked without lot or serial traceability.
- Turning trace on for a part in the ERP means zeroing every stock location, creating a trace profile, then bringing the stock back in with lot information from the physical tags.
- Done by hand that is many screens per part, per site, and easy to leave half finished. A slip can leave negative inventory or a broken cost history.
- The work is spread over hundreds of parts, some stocked at more than one plant.

HOW WE SOLVED IT

What we built

- A guided workflow takes one part through the whole conversion. Scan the part, and the tool finds every site and location holding stock.
- It zeroes the locations through the ERP's transaction API, then creates the trace profile from one standard template that matches the plant's proven setup.
- The operator then keys only what is on the physical tag (PO and line, date, optional serial number or expiration date). Lot numbers are assigned by the ERP's own numbering.
- Serialized parts get one unique ID per unit, enforced by the profile itself.
- Progress is saved in the database, so a conversion can be paused, resumed on another day, or picked up by someone else.
- Safeguards recheck live stock before every adjustment, refuse to repeat a transaction that was interrupted mid-way, and give clear instructions if a balance ever goes negative.

HOW IT WORKS

Four steps, one part at a time

1

Scan
The tool finds the part at each site and lists the locations holding stock.

2

Zero out
Every location is adjusted to zero through the ERP, with the quantity re-checked first.

3

Create profile
The standard trace profile is created for that part and site.

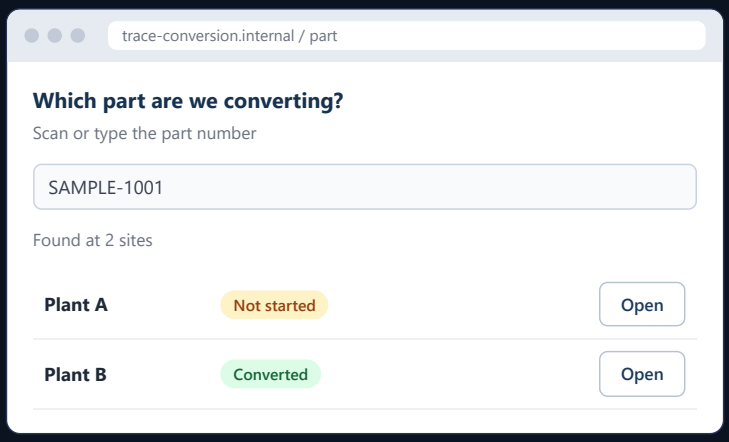
4

Bring back in
The operator keys tag information and each location is adjusted back in with trace.

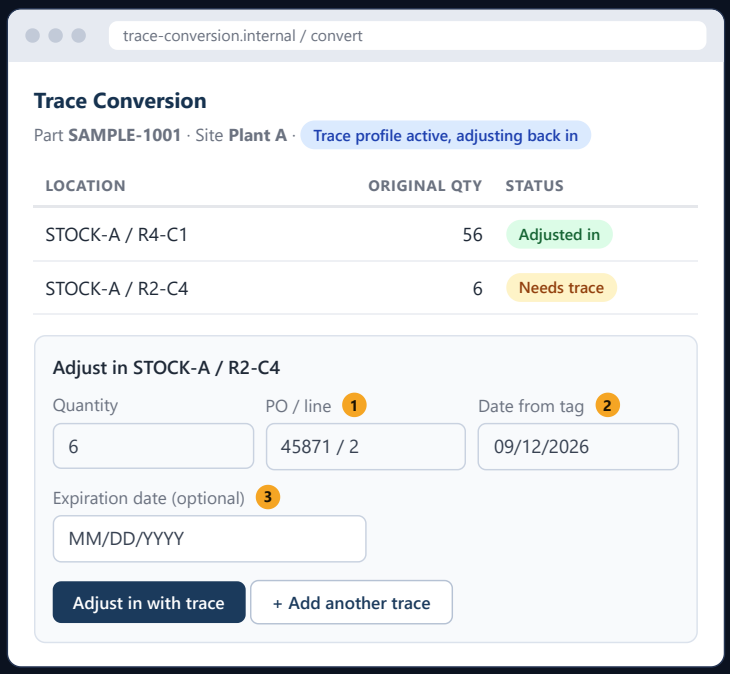
SCREENS

The conversion screens

Simple enough that the stockroom can run it without touching the ERP client.



Pick the part and site. A part stocked at two plants is converted separately at each, and the status shows where each stands.



Adjust back in. Only tag information is typed 1 2 3. Quantities and lot numbers are handled by the system.

Illustrative screens rebuilt with sample data. No customer, supplier or employee information is shown.

WHAT CHANGED

The difference on the floor and in the office

One guided pass per part

The stockroom follows a single flow instead of hopping between ERP screens and remembering the order.

Consistent trace setup

Every part gets the same profile, so lot and serial behavior is the same across the plant.

Safe to interrupt

Saved progress and duplicate-transaction protection mean a restart or an interruption does not cost inventory accuracy.

A record of every conversion

Who converted what, where and when is stored alongside the resulting trace IDs.

Handles the awkward cases

Serialized parts, expiration dates, multi-site parts and parts split across several purchase orders are all supported.

Field-tested and hardened

Edge cases found in live use, such as stock arriving mid-conversion or a negative balance, were turned into built-in checks.