



# CHELMSFORD

MASSACHUSETTS

# UPS Sort Training Platform

A browser-based certification and analytics system for package sorting

Chelmsford Distribution Center · May 2026

# The Challenge

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## No standard training

Sorters learn belt assignments informally. There is no consistent method to verify knowledge before someone handles live packages on the floor.

## Missorts are costly

A misrouted package requires manual reprocessing, delays the recipient, and increases the chance of damage in transit. Every error has a direct dollar cost.

## No supervisor visibility

Supervisors have no data on which sorters are struggling, which belts cause the most errors, or which ZIP codes generate the most confusion.

# What I Built

## Browser-based

Runs in Chrome or Edge — no installation, no app store, no IT ticket required.

## Fully offline

No internet connection needed. All 41,000 ZIP routing records load locally in the browser.

## Shared-drive sync

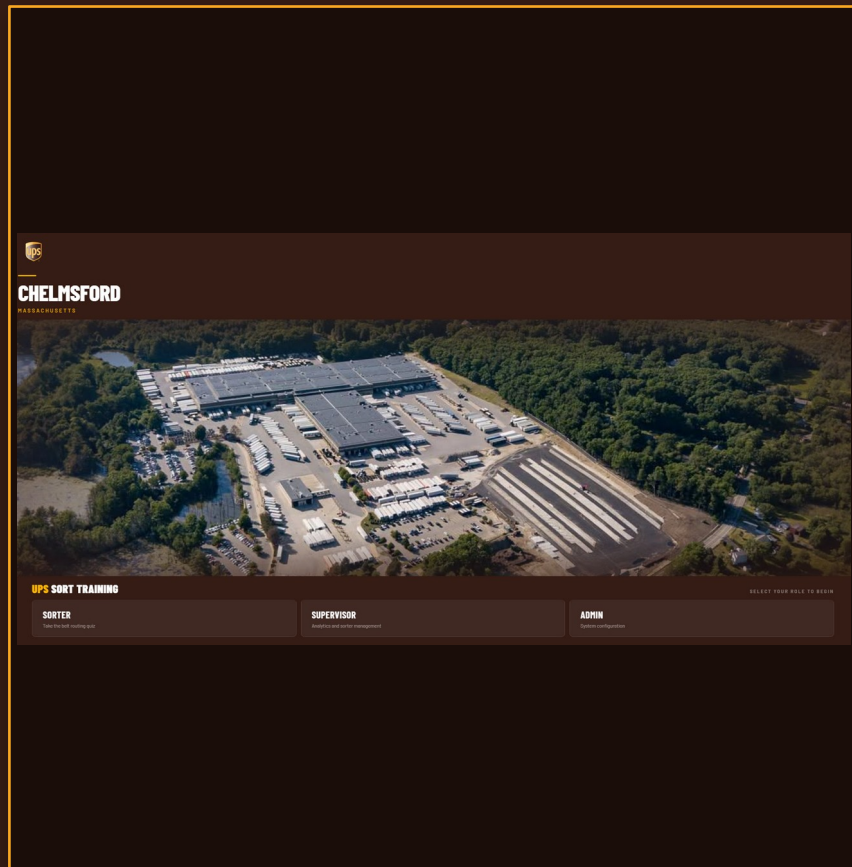
Point the app at a network folder once. Every supervisor machine sees the same live data.

## Three-tier access

Sorter / Supervisor / Admin — each sees only what they need; nothing more.

## Zero licensing cost

Built entirely in-house. No software subscriptions, no cloud fees, no vendor dependency.



Landing page — role selection

# The Quiz — What Every Sorter Sees

A randomized UPS shipping label appears. The sorter picks the correct destination belt from four choices.


**4**  
ANSWERED

**2**  
CORRECT

**50%**  
ACCURACY

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WHICH BELT DOES THIS PACKAGE BELONG ON?

AMAZON.COM LLC 410 TERRY AVE N SEATTLE WA 98109	29 LBS 1 OF 1
SHIP TO: JONES RESIDENCE 8276 ELM ST AURORA OH 44202	
<b>OH 442 0-02</b>	
<b>UPS GROUND</b>	
TRACKING #: 1Z N662 U6EN 96 RBY3 SV2S	
	
URC87.SA DESC: GROUND SERVICE	

1 **Top Green**  
PD-07

2 **Top Yellow**  
PD-02

**Top Blue**  
PD-12

4 **Middle Blue**  
PD-13

Correct — PD-12 · Top Blue

**Next Question** Flag Answer

## Realistic UPS label

Randomized sender, recipient, address, weight, and tracking number every question.

## Routing code visible

The label's service bar shows the ZIP-derived routing code (e.g. OH 442) — sorters must map this to the correct belt.

## 4 gold answer tiles

Distractors are chosen from confusable neighboring belts, not random picks.

## Keyboard shortcuts

Keys 1-4 select an answer. Space or Enter advances — no mouse required.

## Session grade

Answered, correct, and running accuracy shown live. End-of-session: Proficient / Developing / Needs Coaching.

# Three Roles, One System

Access is controlled by employee ID and a shared password. Each role sees only what it needs.

## SORTER

*Employee ID only — must be on roster*

- Sees the quiz only — nothing else
- Realistic UPS labels to identify
- 4 belt choices per question with keyboard shortcuts
- Running score and accuracy displayed
- End-of-session grade report

## SUPERVISOR

*Shared supervisor password*


- Full analytics dashboard (8 tabs)
- Belt error rates and trend data
- Sort aisle leaderboards
- Routing overlay management
- Sorter flag review and escalation

## ADMIN

*Employee ID + admin password*

- Grant or revoke supervisor access
- Edit the 41,000-ZIP truth table live
- Configure quiz weighting per state
- System health and data export
- Change all system passwords

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**ADMIN**

EMPLOYEE ID

6068314

PASSWORD

.....

**Begin**

Admin credential screen

# Supervisor Analytics — Overview

Real-time team accuracy, top problem belts, and sorters needing attention — all in one tab.

## 8 tabs

Overview · Belt Stats · Sorters · Sort Aisles  
Missort Matrix · Overlays · Roster · Flags

## 7-day

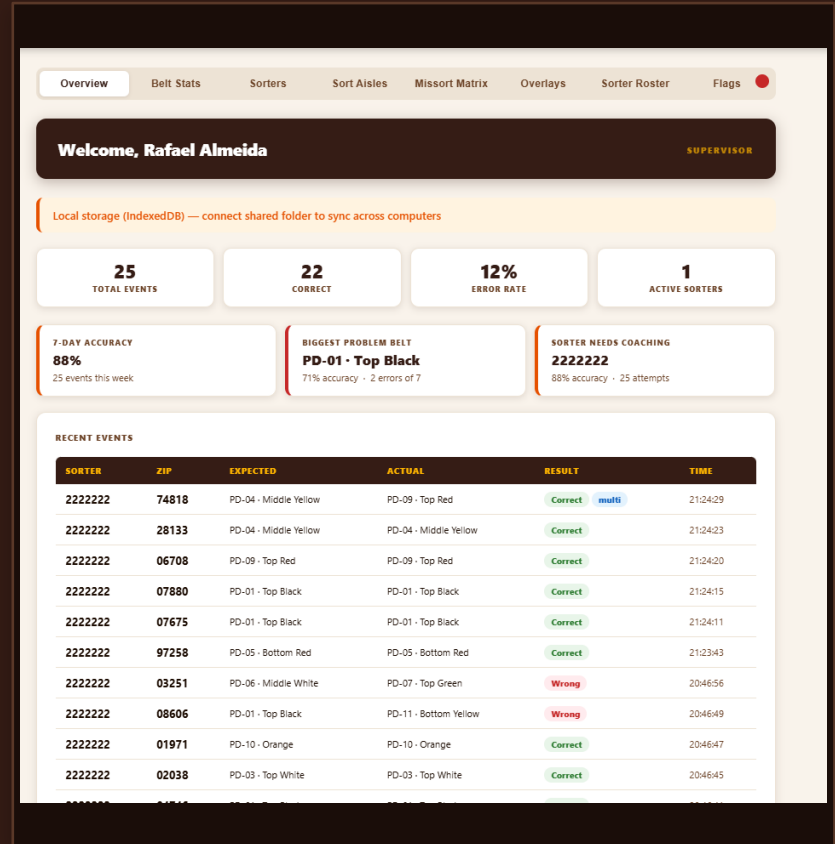
Rolling accuracy trend shown on the overview tab

## per sorter

Every answer ever submitted is stored and reviewable

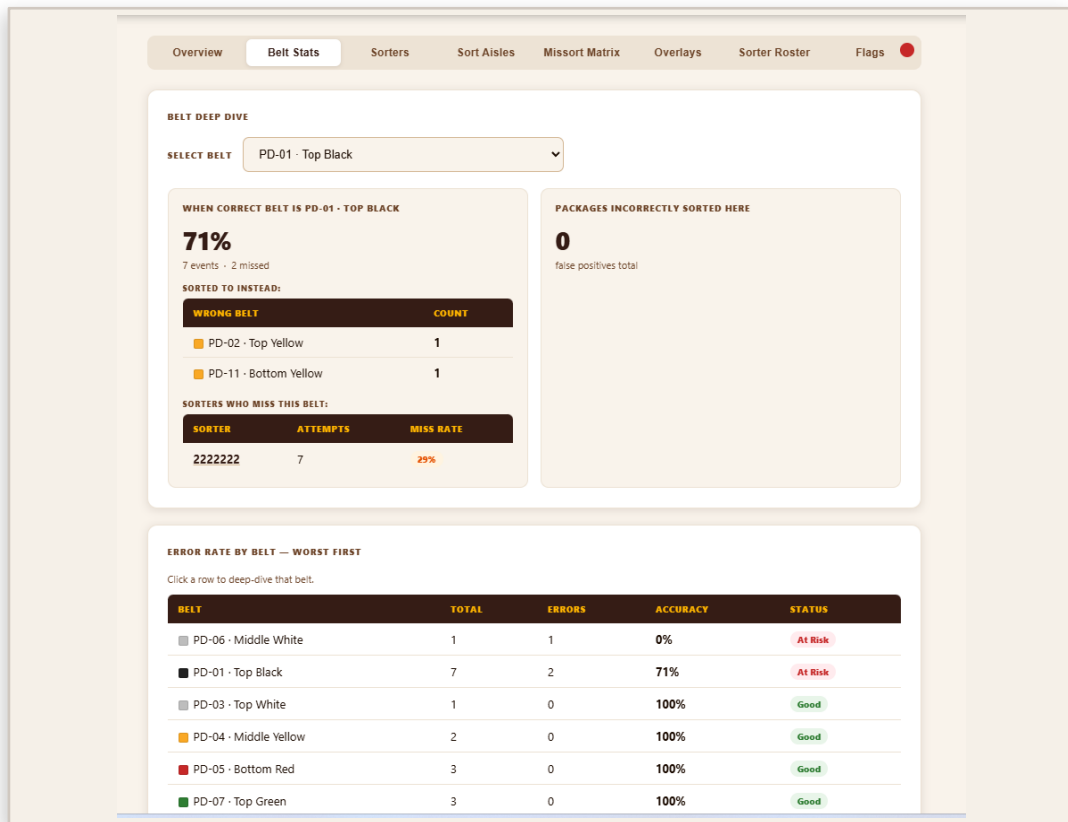
## real-time

Data refreshes as sorters complete quiz sessions



# Belt Intelligence

Click any belt to see which sorters miss it most, how often, and what wrong belt they chose instead.



## Error rate by belt

Every belt is ranked worst-to-best. Click any row to drill into that belt's data.

## Which sorters miss it

The drill-down shows each sorter's attempt count and miss rate for that specific belt.

## False positives tracked

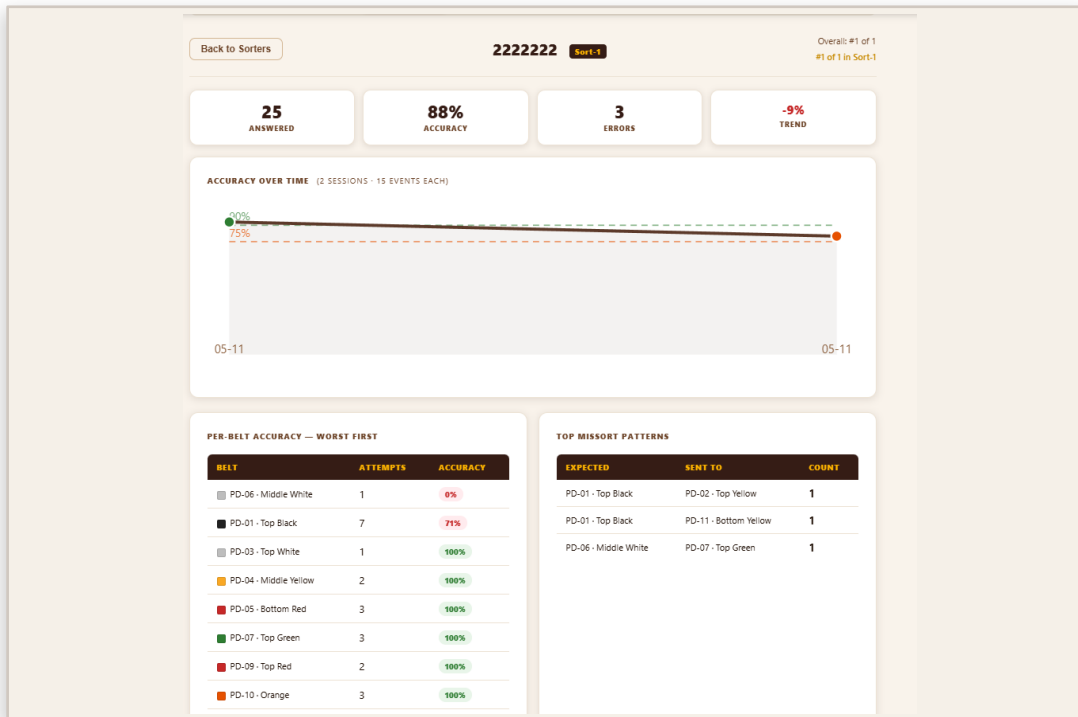
Packages accidentally routed to the wrong belt are captured separately.

## Actionable coaching

Supervisors know exactly who to talk to and exactly which belts to cover.

# Individual Sorter Drilldown

Accuracy over time, per-belt performance, missort patterns, and aisle rank — every answer ever submitted, in one view.



Total answers & accuracy

Accuracy trend over time

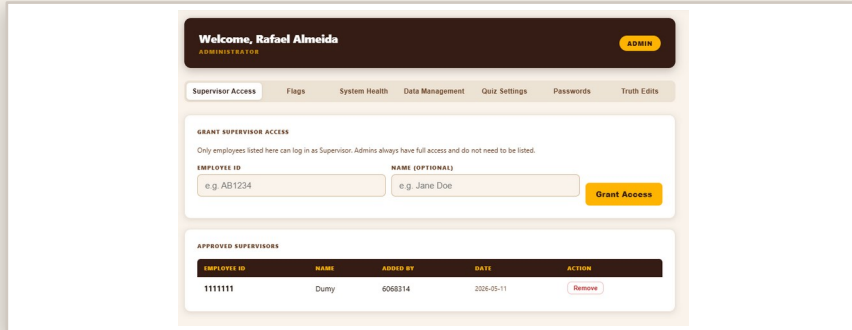
Per-belt accuracy table

Top missort patterns

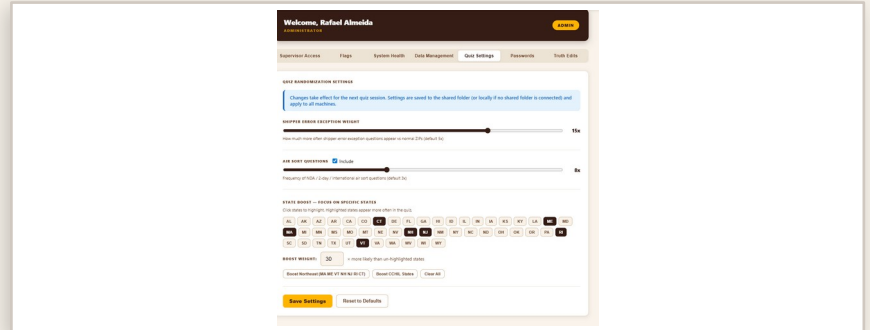
Aisle rank

# Admin Panel

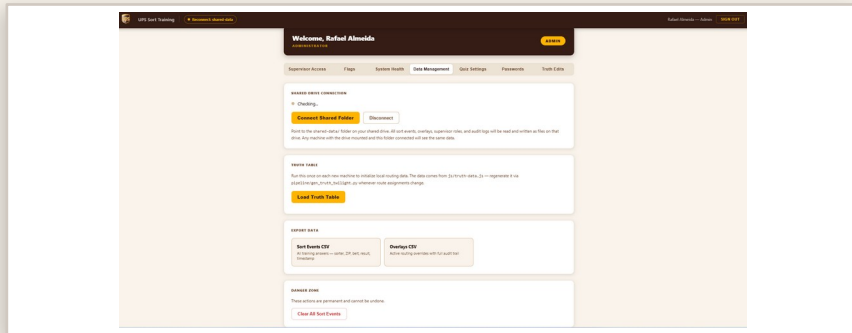
Full system control — accessible only to named admins with employee ID and password.



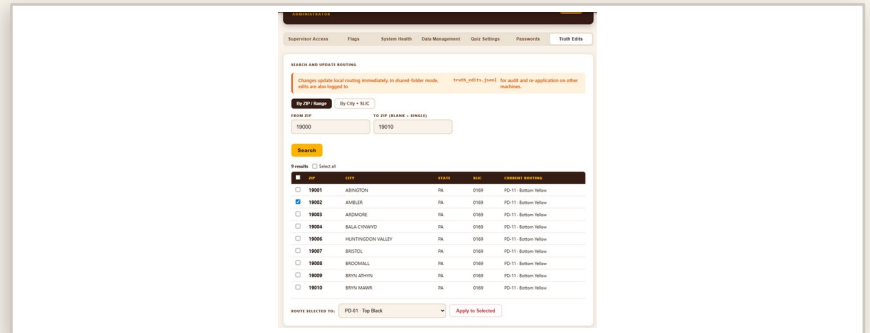
## Supervisor Access



## Quiz Settings



## Data Management

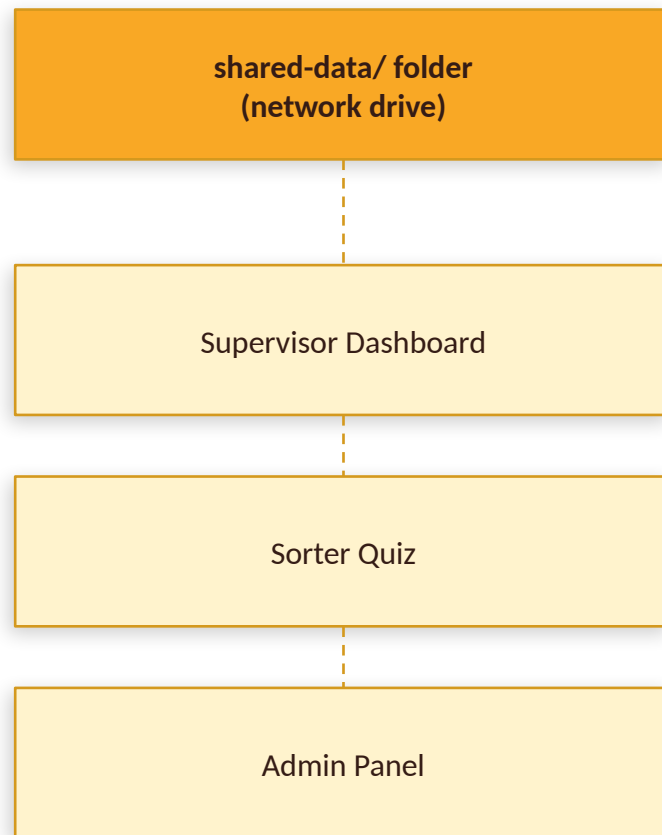


## Truth Table Editor

# Deployment — No IT Department Required

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- 1 Copy the project folder to a shared network drive.
- 2 Each supervisor machine opens index.html in Chrome or Edge.
- 3 Point the app at the shared-data/ folder on first launch.
- 4 All sort events, overlays, and roster data sync automatically.
- 5 Sorters log in with their employee ID — no account creation needed.



*All machines read and write the same shared files*

# Business Case

Built in-house at zero licensing cost. Operational from day one.

41,000

ZIP codes  
in routing table

16

destination  
belts covered

4

sort aisles  
leaderboard

\$0

licensing cost  
or cloud fees

## Consistent certification

Every sorter takes the same standardized test before handling live packages. Performance is measurable and comparable across all four aisles.

## Early intervention

Supervisors identify struggling sorters before errors occur on the floor. Coaching is data-driven and targeted — not guesswork.

## Operational agility

When routes change, admins update the truth table in the browser. Changes take effect immediately on all machines — no retraining sessions required.

# Ready to deploy

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The system is live and running at the Chelmsford facility