

FROM PHYSICAL LABELS TO DIGITAL TRUTH

A business guide to modernizing
industrial asset and inventory
data capture with Pixorex



Executive Summary

Modern industrial enterprises often rely on manual data capture from physical labels and tags, leading to slow operations, inconsistent records, and unreliable downstream data. These manual processes are particularly prevalent in environments like plants, warehouses, and field operations, where information is trapped on physical nameplates or tags.

Pixorex bridges this data gap by combining AI vision, mobile scanning, and human validation to convert physical

information into trusted digital records. By replacing slow, error-prone typing with AI-powered mobile capture, Pixorex addresses the “first mile” of data entry, ensuring that physical world details become structured, system-ready data.

The solution ensures accurate, source-level data capture for seamless use in operations, compliance, and enterprise decision-making. Through a rigorous six-step workflow- **Scan, Extract, Structure, Validate, Review, and Use**.

Pixorex provides the governance and enterprise context required to transform raw text into reliable records for ERP, EAM, and inventory systems.

Pixorex turns physical labels into digital truth: captured faster, validated smarter, and ready for enterprise workflows.

What Problem Does Pixorex Solve?

Most operational systems are only as reliable as the data feeding them. For asset-heavy and inventory-intensive businesses, that data often begins in the physical world.

The problem occurs when teams manually capture information from equipment nameplates, product labels, chemical or paint labels, warehouse tags, packing documents, and field records. This work is common across plants, warehouses, service locations, storage areas, and receiving operations.

Manual capture creates four business risks:

- **Slow operations:** teams spend time reading, typing, checking, and re-entering data.
- **Poor accuracy:** unclear labels, human errors, and inconsistent formats create unreliable records.
- **Weak visibility:** assets and inventory are harder to track across facilities, bins, shops, and business units.
- **Downstream impact:** ERP, EAM, inventory, compliance, and analytics systems inherit bad or incomplete data.

This is not only a productivity problem. It is a data trust problem. When the first mile of data capture is manual, every system that depends on that data becomes less reliable.

Where and When Does the Problem Occur?

The problem shows up wherever physical information must become digital information.

It occurs:

- **On plant floors**, when technicians capture machine details from scratched or hard-to-read nameplates.
- **In warehouses**, when teams record stock, bin, batch, or product information manually.
- In **receiving workflows**, when physical labels must be validated against purchase orders or packing lists.
- In **chemical, paint, and materials environments**, where labels may include complex product, batch, safety, or multilingual details.
- In **field operations**, where equipment records are captured under time pressure or low-connectivity conditions.

The issue becomes more serious when labels are faded, dirty, damaged, multilingual, poorly lit, partially visible, or located in difficult-to-access areas.

In these conditions, generic OCR or consumer scanning tools may read text, but they rarely provide the workflow, governance, review, and enterprise context required for operational use.

Why Pixorex?

Pixorex is built for industrial environments where scanned information must become structured, validated, governed, and system-ready data.

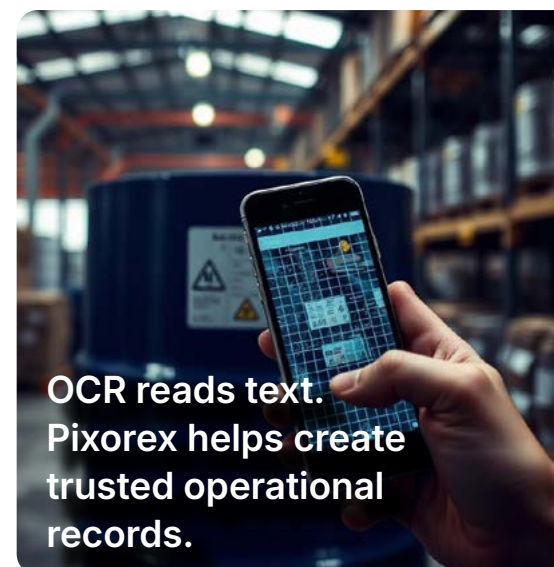
Generic OCR tools can extract text. Pixorex goes further by helping teams manage the full process from capture to approval to downstream use. It can support business-specific schemas, field-level confidence review, location context, role-based workflows, and structured exports.

This matters because industrial teams do not just need text from an image.

They need trusted records that can be used by operations, inventory, maintenance, compliance, ERP, EAM, and reporting teams.

Pixorex is relevant when organizations need to:

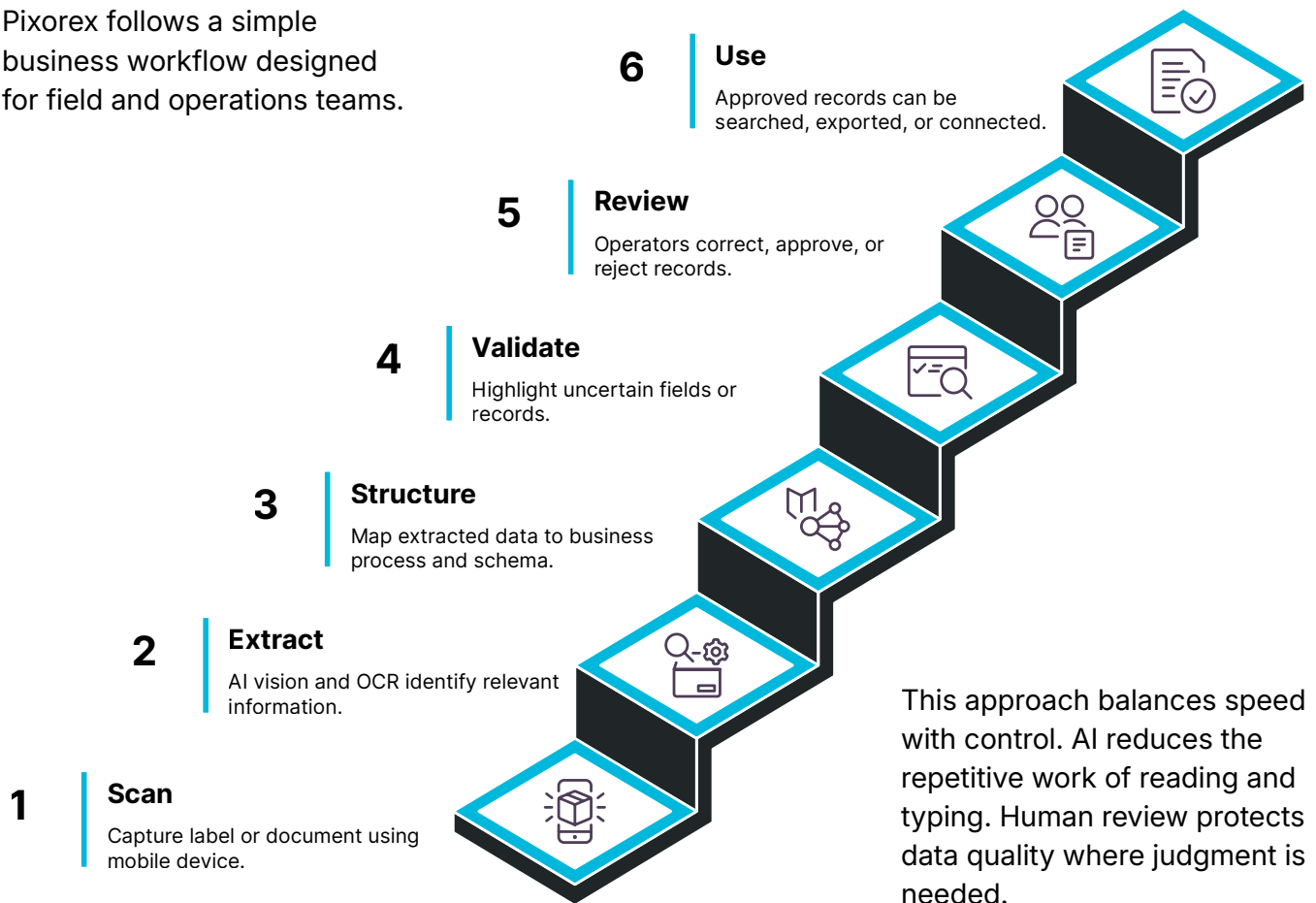
- Reduce manual entry from labels, nameplates, and inventory documents.
- Improve the accuracy of asset and inventory records.
- Create better visibility across facilities, locations, bins, and business units.
- Validate uncertain data before it becomes a system record.
- Prepare clean operational data for ERP, EAM, inventory, or analytics systems.
- Introduce AI without losing governance, review, and access control.



**OCR reads text.
Pixorex helps create
trusted operational
records.**

How Pixorex Works

Pixorex follows a simple business workflow designed for field and operations teams.



Capabilities That Matter to the Business

Pixorex should be understood as an operational data capture platform, not just a scanning application.

AI-powered mobile capture

Field and warehouse teams can capture physical data at the point of work instead of delaying updates or relying on spreadsheet entry.

Workflow-specific extraction

Different business processes can define different data fields, whether for machine nameplates, chemical labels, warehouse inventory, or PO validation.

Confidence-based review

The system flags uncertain data so teams can focus review effort where it matters most.

Location-aware visibility

Asset and inventory records can be organized by facility, building, shop, bin, or sub-bin to support better operational visibility.

Human-in-the-loop validation

Reviewers can correct and approve records before they enter downstream systems.

Enterprise-ready governance

Pixorex supports business unit separation, role-based access, image retention controls, usage visibility, and structured exports for enterprise workflows.

Business Benefits

Pixorex helps industrial teams move from manual capture to trusted operational data.

Key benefits include:

- **Faster asset and inventory data capture.**
- **Cleaner records for ERP, EAM, inventory, and analytics systems.**
- **Reduced manual entry and rework.**
- **Better visibility across facilities, locations, and business units.**
- **Greater confidence in operational, maintenance, and compliance data.**
- **A practical foundation for industrial AI adoption at the point of work.**

Conclusion

Industrial transformation does not fail only because systems are outdated. It often fails because the data entering those systems is late, incomplete, or manually captured.

Pixorex helps organizations modernize this first mile. Turning physical labels, nameplates, and inventory records into validated digital data, it helps industrial teams improve operational visibility, reduce manual work, and build greater trust in enterprise systems.



Ready to identify where manual asset and inventory capture is slowing your operations?

Start with one high-impact workflow and see how Pixorex can turn physical labels into digital truth.