A NEW CLASS OF RETAIL LOSS PREVENTION TECHNOLOGY

LV STREAM™ represents a step forward in staff exit screening: a technology-based method to support loss-prevention decisions with X-ray visual evidence and AI-assisted review.

For retail distribution and fulfillment operations, its value is not only in the scanner itself. The value is in a faster, more objective workflow that helps asset protection teams reduce internal shrinkage, keep exits moving, and make employee screening feel less like a routine and intrusive manual search.

KEY FEATURES

HIGH-THROUGHPUT EXIT SCREENING
Helps employee exits move faster during shift changes and busy operating periods.

REDUCED MANUAL INTERVENTION
Reduces the need to open and inspect personal belongings by hand.

RETAIL-FOCUSED REVIEW
Supports review of retail articles, packaged goods, repacked items, and retail-related configurations.

AI-ASSISTED X-RAY EVIDENCE
Highlights suspicious image regions and gives authorized personnel visual information for review.

IMPROVED DECISION CONSISTENCY
Helps reduce variation between operators, shifts, and facilities

IMPROVED EMPLOYEE SEARCH EXPERIENCE
Supports a calmer, more standardized process that feels less personal and less confrontational.

NO EXACT SKU DATABASE REQUIRED
Focuses on suspicious evidence instead of trying to recognize every product, brand, or packaging variation.

WORKS WITH EXISTING LP TOOLS
Adds an X-ray evidence layer alongside CCTV, RFID, EAS, access control, investigations, and site procedures.

TECHNICAL & OPERATIONAL SNAPSHOT

System type	High-throughput X-ray bag inspection system
Retail application	AI-based X-ray loss prevention for retail distribution centers
Screening point	Controlled employee exit points
Inspected items	Personal belongings, bags, backpacks, lunch bags, packages, and other carried items
Core capability	AI-assisted X-ray inspection and suspicious-region highlighting
Review output	X-ray image, highlighted region, review information, and optional confidence or classification indicators
Throughput	Capable of processing 2000+ bags per hour
Configuration	Automated, high-speed, compact, dual view
Operation	Designed to be easy to use and cost effective to operate, with no extensive training or time-consuming image analysis required
Integration role	Complements CCTV, RFID, EAS, access control, investigation platforms, and security procedures
Target environments	Retail distribution centers, fulfillment centers, warehouses, logistics facilities, and high-value merchandise operations

LINEV SYSTEMS®
info@linevsystems.com linevsystems.com

© LINEV Systems. All rights reserved.
This material is provided for informational purposes only and does not modify or replace the applicable terms and conditions. In the event of any conflict, the terms and conditions shall govern and control. Product design and specifications may change without notice. Refer to the official technical proposal for current and binding specifications. Unauthorized use, reproduction, disclosure, or export is prohibited.

LL-C Certification 9001:2015
0991-SA18052026

LINEV SYSTEMS
United for Innovation

linevsystems.com

LV STREAM™

AI-BASED X-RAY LOSS PREVENTION FOR RETAIL DISTRIBUTION CENTERS

FAST, OBJECTIVE, AI-ASSISTED X-RAY EVIDENCE
FOR CONTROLLED EMPLOYEE EXIT SCREENING

OVERVIEW

Retail distribution and fulfillment centers move thousands of products every day — including compact, high-value merchandise that can be difficult to control through manual inspection, CCTV, RFID, EAS, or conventional security screening alone.

LV STREAM™ introduces a new retail loss-prevention application: AI-assisted X-ray inspection of personal belongings at controlled employee exit points.

The system is designed to help retailers detect suspicious retail articles, packaged goods, repacked items, and retail-related object configurations inside personal belongings — without relying solely on manual bag checks or exact SKU-level identification.

DESIGNED FOR

- Retail distribution centers
- Fulfillment centers
- Warehouses
- Logistics facilities
- High-value merchandise operations
- Controlled personnel exit points

WHAT LV STREAM™ DOES

- Screens personal belongings at controlled employee exit points
- Detects suspicious retail articles and retail-related configurations
- Highlights suspicious X-ray regions for structured review
- Supports high-throughput loss-prevention workflows
- Provides objective visual evidence for authorized personnel
- Helps reduce dependence on subjective manual inspection

RETAIL LOSS PREVENTION HAS OUTGROWN MANUAL INSPECTION

Retailers are under increasing pressure to reduce shrink while keeping distribution and fulfillment operations fast, fair, and scalable.

At employee exit points, the challenge is simple: personal belongings need to be checked quickly and consistently without turning every shift change into a slow or uncomfortable manual search.

RISKS

- Beauty & fragrance
- Jewelry & watches
- Small electronics
- Premium accessories
- Branded apparel & footwear
- Mixed or repacked items

MULTI-LAYER CONCEALMENT

CCTV, RFID, EAS, access control, and investigation platforms all support retail loss prevention, but they do not show what is actually inside a backpack, lunch bag, box, or personal package. Manual bag checks can confirm contents, but they are slow, inconsistent, and uncomfortable when repeated across every shift.

- Slower exit flow during shift changes
- Operator fatigue and rushed decisions
- Missed suspicious items
- Unnecessary false alarms
- Inconsistent decisions between operators and shifts
- Uncomfortable quantity of manual searches
- Limited scalability across multiple facilities

RETAIL EXIT SCREENING IS NOT ABOUT FINDING ONE OBVIOUS THREAT.

IT IS ABOUT DISTINGUISHING PERSONAL BELONGINGS FROM RETAIL GOODS — QUICKLY, FAIRLY AND CONSISTENTLY.

FROM X-RAY IMAGE TO AI-ASSISTED RETAIL EVIDENCE

01
Present Belongings

An employee places a backpack, handbag, lunch bag, package, or other personal item on the inspection conveyor

The item enters the controlled exit-screening process

02
Capture X-ray Image

LV STREAM™ captures X-ray image data of the inspected item

Authorized personnel gain internal visibility without opening every bag by hand

03
Analyze with AI

The software analyzes the image for candidate regions that may correspond to retail articles, packaged goods, or suspicious object configurations

The system helps focus attention on areas that may require review

04
Evaluate Retail Features

The system evaluates object features, package-related structures, spatial relationships, and other indicators relevant to retail loss-prevention scenarios

Retail-related evidence is assessed in the context of employee exit screening

05
Highlight Suspicious Regions

When the system identifies a suspicious configuration, it generates a suspicion signal and highlights the relevant image region

The operator sees where to look first

06
Present Review Output

Authorized personnel receive an X-ray image, highlighted region, review information, and optional confidence or classification indicators.

The review becomes more structured and less dependent on searching the whole image manually.

07
Human Decision

LV STREAM™™ provides decision support.

Authorized personnel decide whether to clear, recheck, or escalate according to site policy.

Clear bags keep moving

THE SYSTEM MAY EVALUATE

- Object shape, size, density, and radiographic appearance
- Retail article features associated with target product classes
- Package-like or enclosure-like structures
- Objects located inside, near, or separated from packaging
- Structured, centered, or non-random object arrangements
- Repacked or concealed merchandise patterns
- Differences between ordinary personal belongings and suspicious retail-related configurations

NOT EVERY SKU NEEDS TO BE RECOGNISED.

ONLY SUSPICIOUS RETAIL-RELATED EVIDENCE NEEDS TO BE IDENTIFIED, QUICKLY AND CONSISTENTLY.

LV STREAM™ is designed to bring a new level of objectivity to employee exit screening in retail distribution, warehouse, logistics, and fulfillment environments.

Instead of relying only on manual bag checks or operator interpretation of raw X-ray images, the system uses AI-assisted analysis to identify suspicious retail-related evidence inside personal belongings.

Unlike conventional screening systems that are primarily built around threat detection, LV STREAM™ can be applied to retail loss prevention by analyzing how retail goods appear inside personal belongings — in bags, packages, lunch bags, mixed items, repacked goods, and other real employee-exit scenarios.