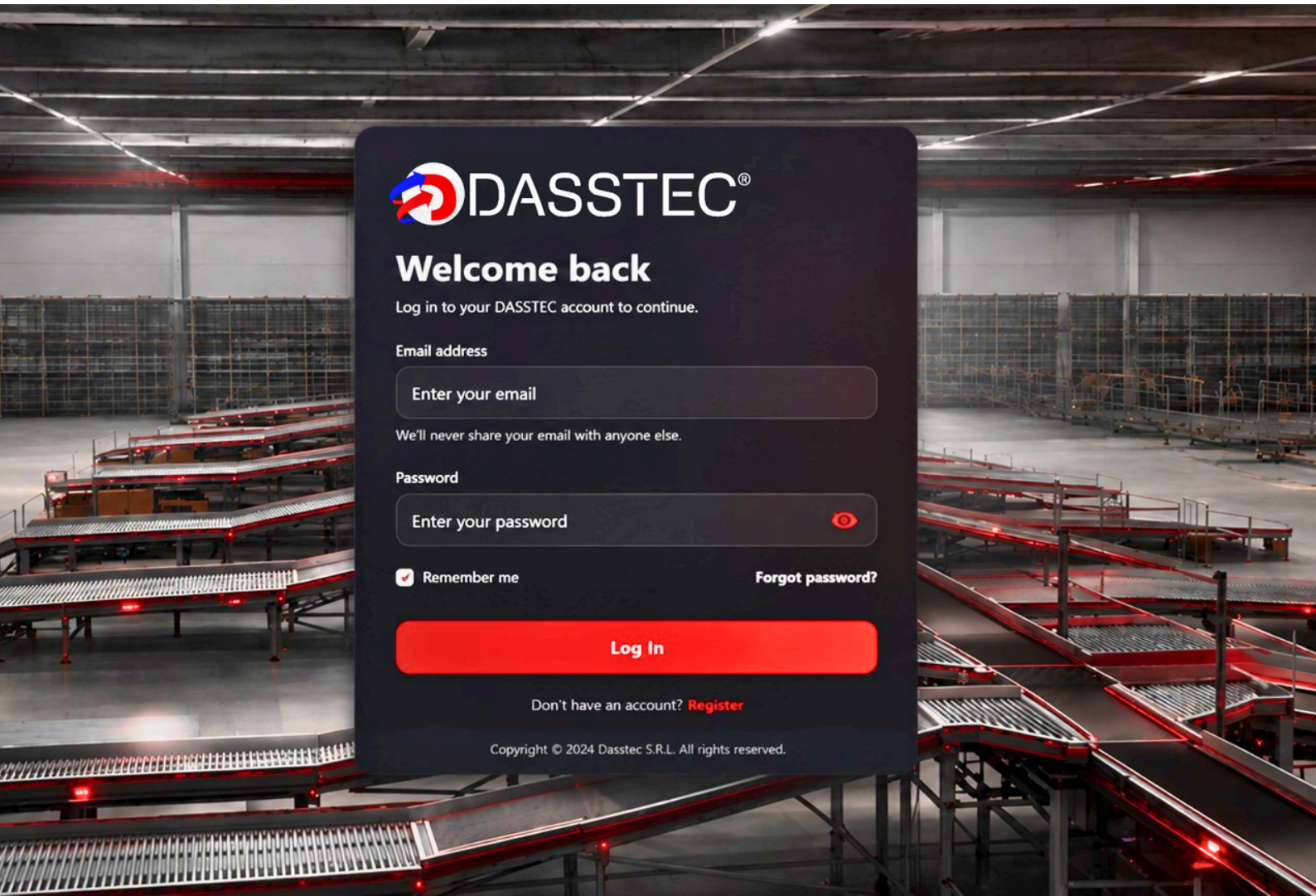
DASSTEC®

# HMI INTERFACE
# DIGITAL TWIN MODEL

## MAIN FEATURES AND KEY FUNCTIONS

An operational platform with real-time visibility and control | AI Vision, Predictive Maintenance, Digital Twin, and Operational Intelligence

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# The objective of the solution

# 01

## Visibility. Control. Faster decisions.

Track all packages and products in transit through a dynamic live-view interface that provides complete visibility into the entire product handling process in real time and equipment functionality.

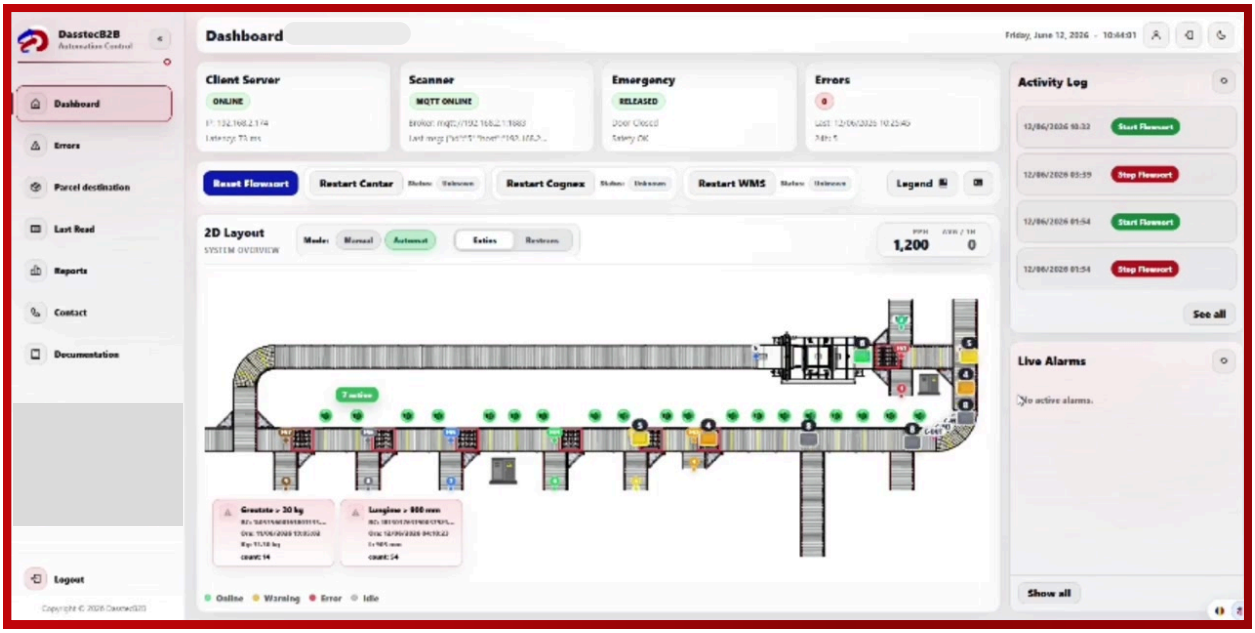


# Key Features 02

## Main features and key functionalities

An operational platform with real-time visibility and control | AI Vision, Predictive Maintenance, Digital Twin, and Operational Intelligence

- ✔️ Live monitoring of packages and products
- ✔️ Centralized control of equipment
- ✔️ Real-time alerts and diagnostics
- ✔️ Operational reporting and analysis
- ✔️ Integration with external systems and equipment



# Technical Specifications 03

## 1. Real-time motion packet visualization

Monitor all packets and products in motion through a dynamic live-view interface, providing complete visibility over the entire material handling process in real time.

## 2. Intelligent object scaling based on actual dimensions

Visual objects are automatically resized according to the real dimensions reported by the 2D layout system, ensuring an accurate digital representation of the physical process.

## 3. Machine Learning object recognition

Advanced Artificial Intelligence and Machine Learning algorithms enable automatic recognition and classification of objects, such as vehicle tires, packages, and other custom product types.

## 4. Centralized equipment monitoring & control

Operate, supervise, and manage all automation equipment from a single intuitive interface, reducing operational complexity and improving system efficiency.

# Technical Specifications 03

## 5. Real-Time system status & Smart Alerts

Instant visibility of automation status, combined with real-time alarms and notifications, enables faster troubleshooting, reduced downtime, and improved maintenance response.

## 6. Fully customizable reporting dashboard

Generate customized reports tailored to each customer's operational requirements, KPIs, and performance metrics for enhanced decision-making.

## 7. Comprehensive user activity tracking

Detailed audit trails and activity logs provide complete transparency regarding user actions, system interactions, and operational changes.

## 8. Mobile-Friendly & Responsive HMI

Access the HMI platform from desktops, tablets, and mobile devices through a fully responsive interface designed for maximum usability across all screen sizes.

# Technical Specifications 03

## 9. Seamless integration with external equipment

Easily connect and communicate with third-party systems and equipment, including AGVs (Automated Guided Vehicles), AMRs (Autonomous Mobile Robots), scanners, cameras, ERP systems, and warehouse management platforms.

## 10. Scalable historical data storage

Secure database architecture stores complete operational history, system events, alarms, and production data with configurable retention periods to meet customer requirements.

## 11. AI Vision-based package recognition

Integration of advanced AI cameras and vision systems capable of identifying and tracking real products on conveyors. Instead of displaying generic scalable objects, the HMI will present actual product images and visual representations in real time.

## 12. Predictive maintenance & AI Analytics

Implementation of predictive maintenance algorithms capable of identifying potential equipment failures before they occur, minimizing downtime and optimizing maintenance planning.

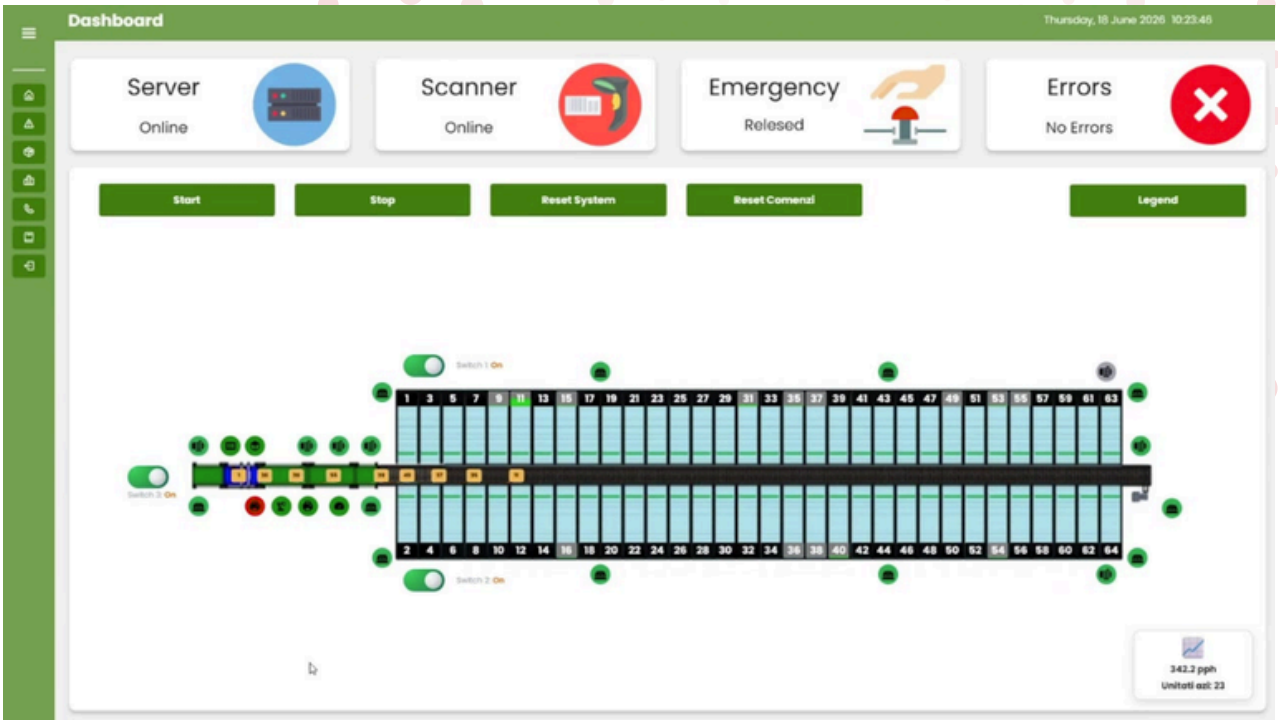
# Technical Specifications 03

## 13. Digital Twin Visualization

Creation of a real-time digital twin of the entire automation system, providing a highly realistic and interactive operational overview.

## 14. Advanced Operational Intelligence

AI-driven analytics delivering performance insights, process optimization recommendations, bottleneck detection, and automated reporting.



# Key Benefits for the Customer 04

## OPERATIONAL BENEFITS

- Complete visibility into the logistics flow
- Short response time to incidents
- Reducing Downtime
- Centralized control of the entire automation system
- Decisions Based on Operational Data

The Digital Twin interface, software by Dasstec, is part of Dasstec's portfolio of integrated intralogistics solutions, developed for modern, high-performance logistics operations.



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