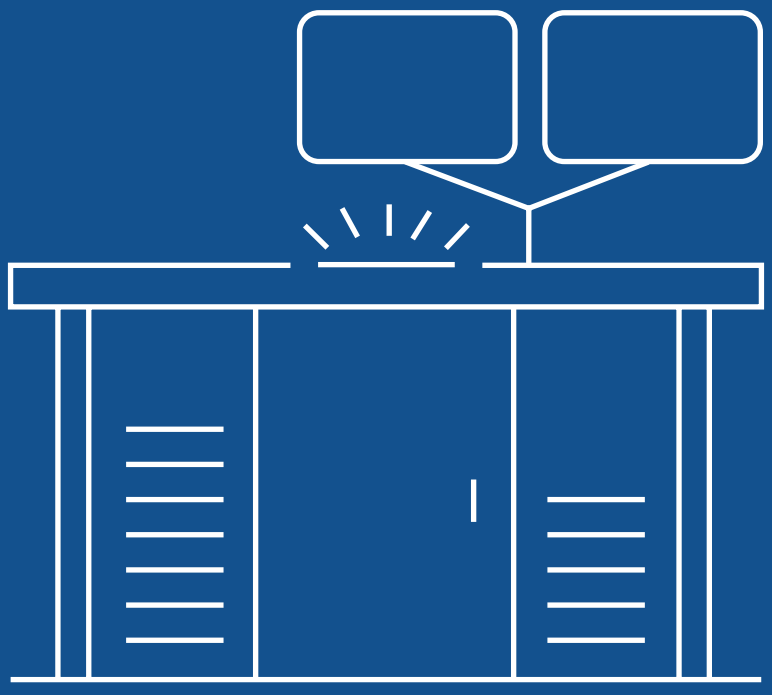
ESSEGI AUTOMATION

focus on **storage solutions**

ISM Incoming Material Station

Material management during the acceptance phase



CORE-EMT

INTEGRATED SYSTEM FOR COMPREHENSIVE AND RELIABLE TRACKING OF INCOMING MATERIALS

In the field of electronic manufacturing, incoming materials must be tracked and traceable throughout the entire production process. Only in this way can product quality be ensured by reconstructing the complete flow of materials. For this reason, it is essential to build a **reliable component management system from raw material ordering to delivery to the production lines** for electronic board assembly.

The ISM Incoming Material Station offers an advanced solution for the **inspection** and **storage** of incoming materials through an integrated and automated system for **recording** all the necessary **information to identify** the incoming material. The system is capable of cross-referencing data and defining in real-time: availability, any need for replenishment, or storage times.

How it works

ISM Incoming Material Station offers an advanced solution for the **inspection** and **storage** of incoming materials through an integrated system for **recording all the necessary information** to identify the incoming material. The system is capable of cross-referencing data and defining in real-time: **availability**, any need for **replenishment**, or **storage times**.

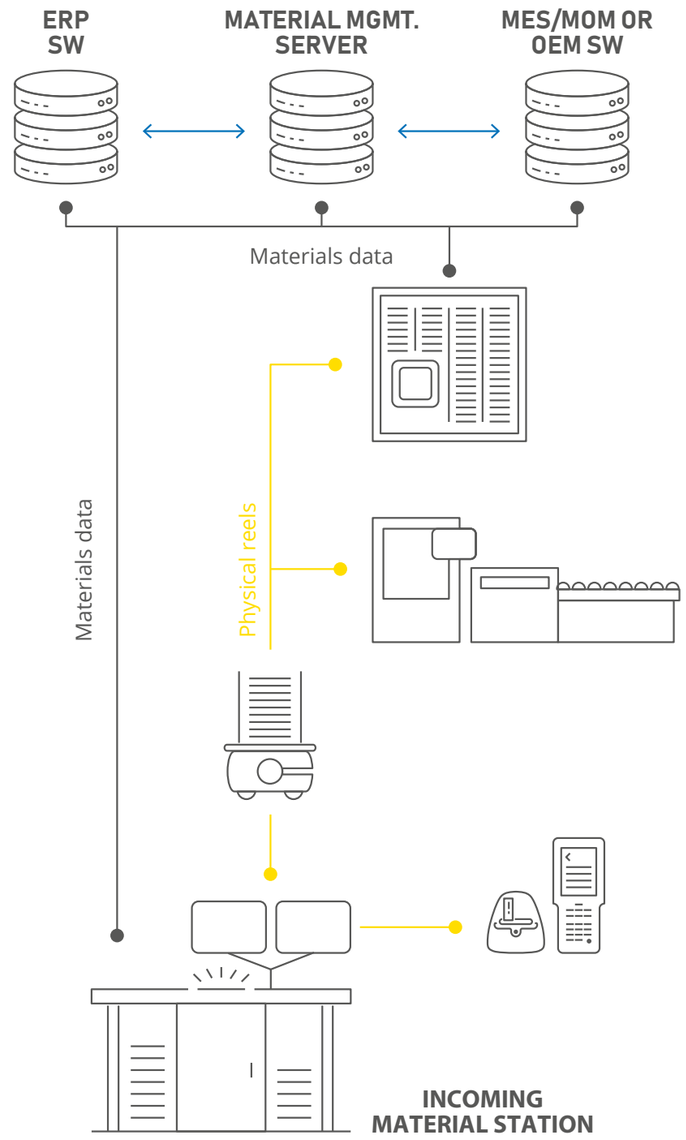
With a single operation, it is possible to achieve **immediate correspondence between the incoming material** and any (ordered) material that is **missing or in excess**.

Article code **validation**

The ISM software verifies the correspondence between the article codes of the new incoming material and an approved list of article codes. The software prevents the initialization of material that is not in the list of approved article codes, ensuring extreme process and product quality.

Recognition of 1D/2D Codes

The camera and software are capable of recognizing, analyzing, and storing any 1D/2D code on the top of the rolls. The software is set with standard rules (ECIA) for data recognition used by most suppliers to label products, but the registration card fields can be customized by adding other values for internal traceability. Expected fields: Part number, unique ID, package format, quantity, Bin, date, MSL, Manufacture PN, lot number, expiration date, supplier, Ref. Order, Notes field, custom field.



Advanced information **management**

In addition to coils, labels, and documents, the module is designed for scanning and digitizing data present in documents, such as:

- Scanning and saving/archiving multipage transport documents or purchase orders
- Creating rules to extract data such as document number, list of article codes, quantity, etc.
- Displaying order lines, user completion percentage, and operator performance

Advantages

UNINTERRUPTED FLOW
The system optimizes the material flow from suppliers to the production line, reducing delivery times to the production lines and ensuring a smooth and uninterrupted process.

NO HUMAN ERROR
The use of ISM Incoming Material Station significantly reduces the activities of recording incoming materials and, as a result, the likelihood of errors in labeling or scanning.

EXECUTION SPEED
Speed, precision, and simplicity in executing material registration activities, freeing the operator for other tasks.

TRACEABILITY
The system helps track the material from its source throughout the entire production process, facilitating the application of quality standards in the electronics industry.

EFFICIENT STORAGE MANAGEMENT
The system monitors incoming material in real-time, allowing for the timely integration of missing components to avoid stockouts.

Features

ISM Incoming Material Station is constructed with a robust metal frame and an **upper antistatic shelf** made of dissipative static laminate, with a **resistivity of 10M Ohm**

The system can:

- Scan the information on the manufacturer's label using a high-resolution camera
- Generate a unique progressive code through the built-in printer
- Produce customized labels

In a single operation, it is possible to:

- Generate a unique progressive code to identify the roll and electronic components
- Read all codes and information simply by placing the material on the table
- Store in the database a photo of each registered item for future viewing and quality checks
- Update purchase orders in real-time with incoming material quantities
- Send information to the management system with a single click
- Interface with other major company systems (ERP, MES, WMS, P&P...)

Technical sheet with different storage capacities

ISM Software

The heart of **integration**

Essegi Automation clearly understands the factors that drive the competitiveness of assembly companies in a global market: **managing storage, planning, and timely response**.

To achieve these goals, a reliable infrastructure for coordinated management of all phases of the production process is required, from receiving to movement and delivery to production lines.

Born out of the need for warehouse management and control, Essegi Automation **ISM software** has evolved over time to become a powerful tool **open to all types of integration and real-time data exchange with all major management systems in the company**, from ERP to MES, to Pick & Place production lines. The integration is key to reducing duplicate data entry, decreasing time spent on data entry, and eliminating human errors and is critical to a lean operation.

Essegi Automation has developed user-friendly, intuitive, and flexible software with data recording capabilities through image scanning, data acceptance from handheld devices, and label printing, as well as MSL management and external position management. An advanced material flow control system that can be further **customized through APIs and custom projects**.

Open and **ready for integration** with all company software systems

Advantages

- Up-to-date and comprehensive inventory of all available material information.
- Efficient organization of materials in the warehouse.
- Availability of materials at the right time and place without waiting times.
- Material traceability and the ability to determine the storage period.

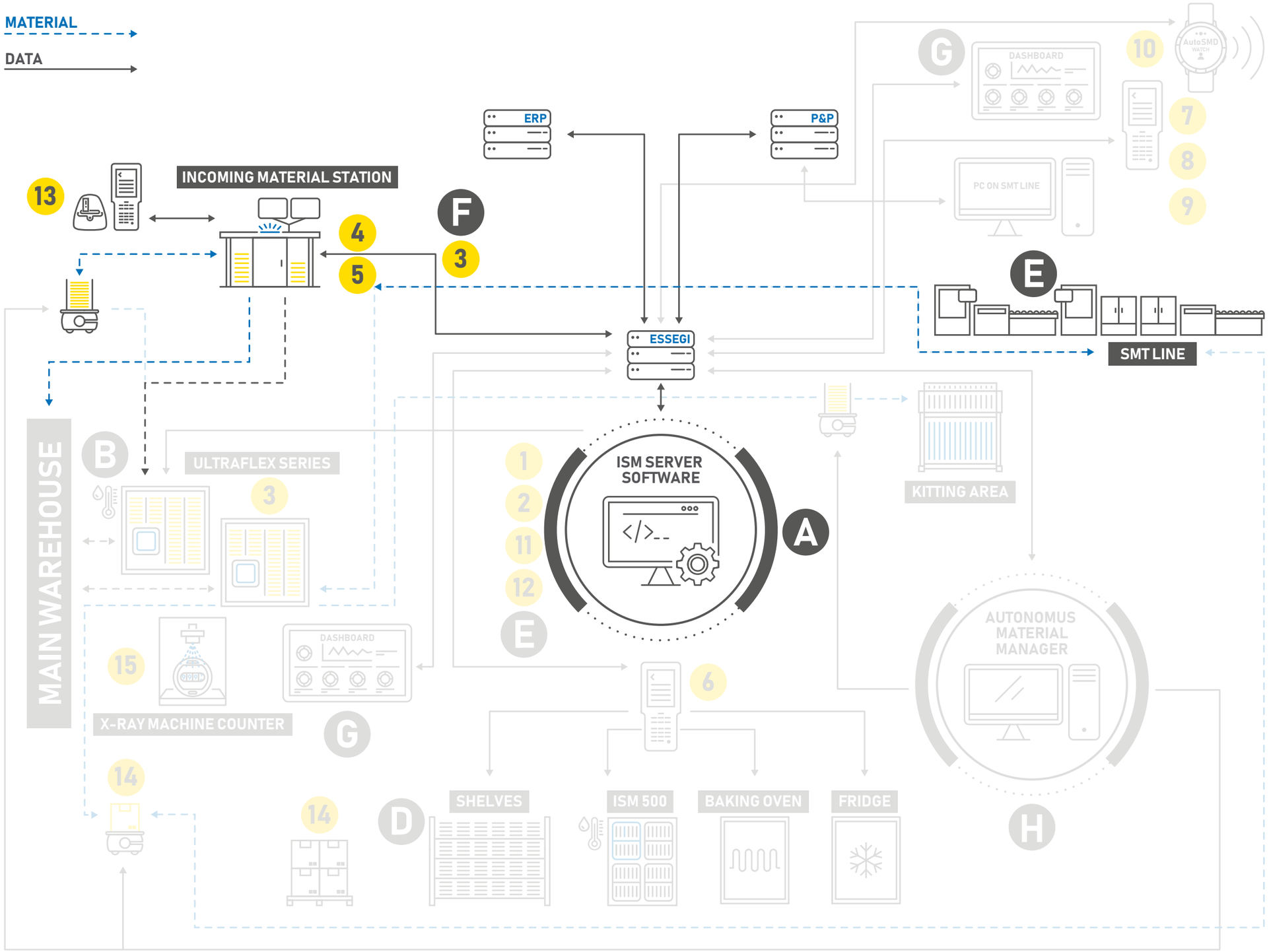
A ISM Server software

Modules

- B MSL Management
- C Connections with Pick & Place
- D Dynamic Warehouse Management
- E Buffer/Supermarket Management
- F Advanced Material Receiving Operations Management
- G Dashboard
- H Automated Material Handling Management

Options

1. Work Order Control
2. Alternative Parts Management
3. Traceability with Photographic Archive
4. Approved Vendor List (AVL) management
5. PO matching during receiving/ labelling
6. Location tracking with mobile devices
7. Material picking with mobile devices
8. Verification of the correct feeder setup locations
9. Visibility of feeder information from handheld devices
10. Smart Watch App
11. Solder Paste Management
12. Baking Management
13. Mobile scanning with handheld and label printing
14. Traceability of Boxes, Pallets, Trays with CASE BOX functionality
15. Connection to X-ray inspection systems



→ Incoming Material Station **version**

THE ADOPTION OF ISM INCOMING MATERIAL STATION PROVIDES A TRUE COMPETITIVE ADVANTAGE

THE INSPECTION OF INCOMING MATERIALS AND AUTOMATION OF HANDLING REDUCE HUMAN ERROR, ENSURE PRODUCT QUALITY AND MAKE THE PROCESS EFFICIENT

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