



## THE MODULAR TOOLKIT FOR YOUR DIGITAL SHOP FLOOR

Disjointed systems and isolated solutions slow down production. The INDUTRAX Application Environment (IAE) software platform seamlessly links your material flows, data, and processes – your digital shop floor starts here.

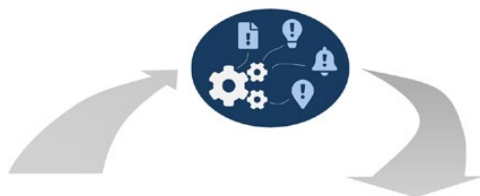
The **IAE Software Toolkit** is your central platform for creating connected industrial applications in production and logistics using tracking, identification, and sensor technologies.

It captures object movements and data flows, links applications, maps processes digitally, and enables custom user interfaces – all based on a shared, modular architecture.

### Shop floor complexity trap: Your digitalization stalls without the right software

- ⦿ Too many systems and too many standards – no seamless interoperability
- ⦿ Inflexible applications slow down production when adaptations are needed
- ⦿ Lack of live data create intransparent situations on the shop floor
- ⦿ Paper and system breaks lead to errors

**The Risk:** Digitalization becomes an ongoing construction site instead of a solution.



**With the IAE, the Industrial Internet of Things becomes a standard for all processes in your factory:**

#### Easy integration of all tracking technologies:

- ⦿ Via standards or specific connectors such as GNSS/ GPS, RTLS, beacons, mesh networks, LiDAR, etc..
- ⦿ Position and sensor data are mapped directly to digital objects
- ⦿ Context information ensures reliable operations on the shop floor

#### Sensor integration:

- ⦿ Accelerometers, odometers, temperature/humidity, weight, occupancy, etc.
- ⦿ Sensor data is mapped directly to digital objects

#### Integration with enterprise applications:

- ⦿ Master data synchronization and process feedback like e.g. bookings or control commands
- ⦿ Standard interfaces REST API, MQTT, SQL, SAP

#### Toolbox for defining application logic:

- ⦿ No-code/low-code configuration of digital models and the rules engine
- ⦿ Access to predefined functions, behaviors, and libraries

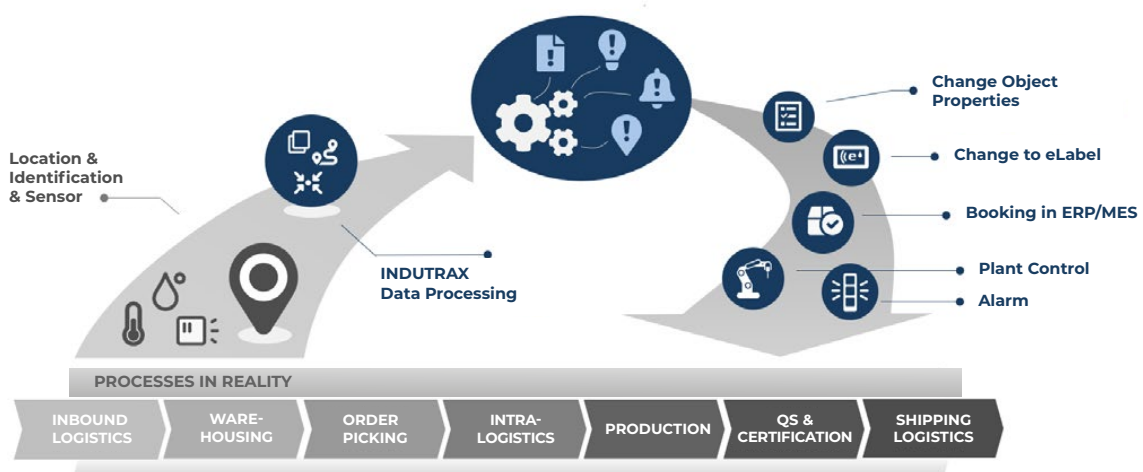
**One Platform. All Processes.  
Maximum Flexibility.**

IAE is a modular, scalable, and interactive software platform for shop floor digitalization. It connects applications, users, and systems: configurable, secure, and end-to-end.

**KEY FEATURES**

**Real-time event processing – AI-powered for Industry 4.0**

- Movements from **location tracking systems**, sensor data, and master data changes are processed in real time.
- Context from movement and environment ensures **reliable industrial-grade data processing**.
- Geo-fencing and **AI-based motion detection** enable precise workflows.
- The **central rules engine** allows flexible no-code/low-code definition of automated bookings, notifications, and process controls.



**Application design with standards, templates, and low-code/no-code**

- Departments can independently **configure workflows without coding**.
- **Plug & Play-integration** of all tracking technologies like e.g., GPS, RTLS, SLAM, mesh networks, beacons, sniffing, identification, etc., using standards such as ISO24730, MQTT, Omlox, VDA5050, or EPCIS.
- **Use of prebuilt modules**, building blocks, and digital templates – quickly adaptable to individual processes.
- Open APIs, deep-link URLs for **client integration**, and standard ERP interfaces (e.g. SAP) and e-label systems integrate the solution seamlessly into your enterprise landscape.



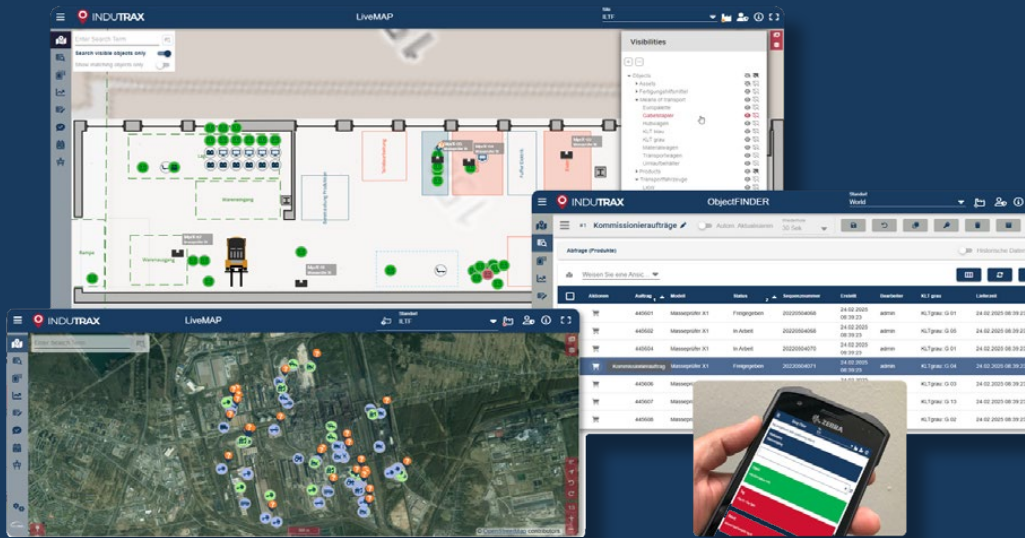
Experience how IAE centrally controls mobile and location-based industrial processes – live in our demo factory or online.



KEY FEATURES

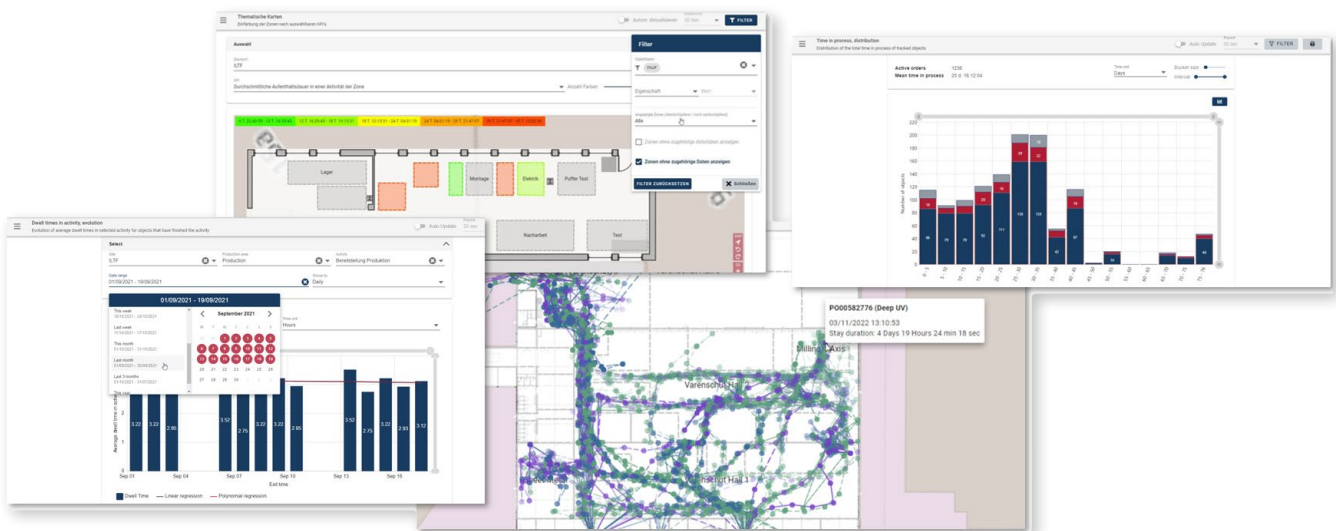
Intuitive user interfaces, real-time maps, and shop floor proximity

- Clear interfaces, minimal input, robust operation
- Role-based displays and controls by site, production area, or function
- **Real-time maps** with public and private background maps, object libraries for visualizations, context-based color coding, and user-specific visibility settings
- Complex search definitions for recurring workflows and event lists, visually editable without programming skills



History, location analytics, and continuous improvement

- Movement and process histories are automatically generated from validated and plausibilized real-time data.
- Standard reports visualize historical information as heat maps, spaghetti diagrams, box plots, and Gantt charts, including replay functionality.
- Self-service reports can be created or used with per seamless integration into external business intelligence tools like e.g. MS Power BI for continuous improvement analyses.



Experience how IAE centrally controls mobile and location-based industrial processes – live in our demo factory or online.



With IAE, you bring tailored solutions for production and logistics directly to the shop floor. Prebuilt modules, adaptable digital models, and open interfaces quickly, flexibly, and smoothly transform processes into ready-to-use applications.

**Location User Xperience**



- Display and edit object data in map views
- Perform actions directly via the interface – no keyboard needed; role-based, mobile, and intuitive

**Location Analytics**



- Record and analyze movement histories
- Basis for process optimization using historical data

**Digital Factory Services**



- Building blocks for industrial processes: product hierarchies, inventory, warehouse layouts, production sequences and plans
- Foundations for flexible, configurable processes

**E-Label Integration**



- Integrate e-label systems and display information on the shop floor without paper
- Fully integrated into the Events Engine

**Events Engine**



- Real time events triggered by movement, sensors or status changes
- Core of automation, easily managed via low-code rules

**Enterprise Integration**

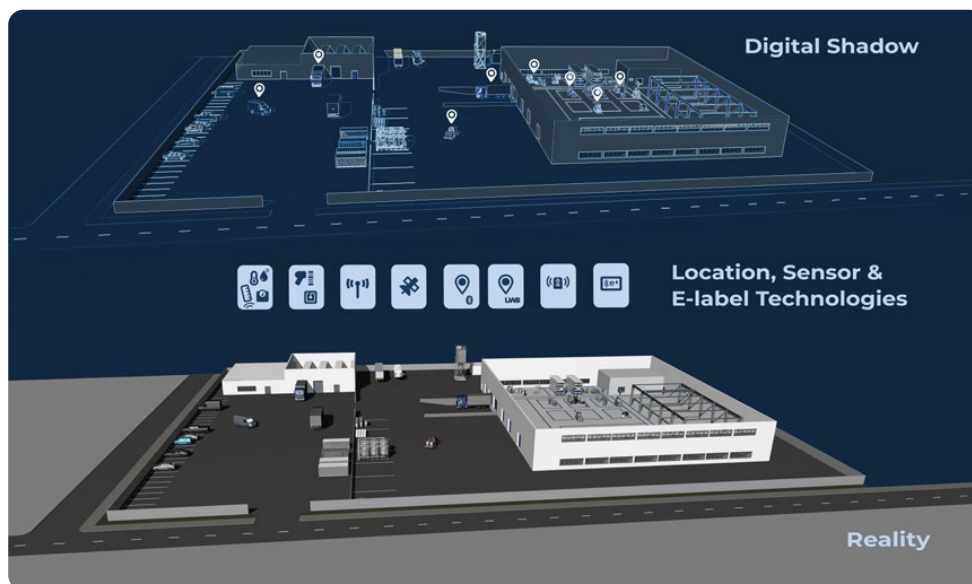


- Standardized interfaces to ERP, MES and other IT systems
- Master data remains consistent and synchronized in real time

**Location Hub**



- Module for connecting tracking and sensor systems, consolidating different data formats into a common reference system
- Reliable data due to context from the digital model
- Real processes in the digital model
- Geofencing and powerful APIs provide the foundation for your application



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**Location, Movement, History – always at your fingertips with IAE**

Real objects (load carriers, vehicles, tools, etc.) become intelligent, connected units that know their location, status, and context and therefore actively contribute to process control. Prebuilt modules, digital building blocks, and open interfaces enable you to:

**Act based on location and context**

- Information is consolidated from ERP, MES, WMS, building and depot management systems, tracking and identification technologies (GPS, RTLS, RFID, LiDAR, etc.), as well as map data and sensors.
- Role- and location-based views provide relevant information.
- Decisions can be made directly from the platform in a data-driven manner.

**Monitor processes in real time**

- Real-time tracking enables responses to deviations at the point of occurrence.
- Automatically capture the movements, positions, and status of objects.
- Analyse histories and events in a traceable manner.
- Critical situations automatically trigger predefined actions.

**Design workflows yourself – flexible and intuitive**

- Assemble and customise applications and workflows on demand through self-service.
- Independently configure rules, logic, and special cases using low-code.
- Integrate process control into the enterprise environment.
- Define your own environment and map visualisations.



**Value**

Visualisation presents processes in a clear context-aware way, and location histories make developments and patterns understandable.



**Value**

IAE connects real movements and statuses of your objects with digital data sources from production and logistics.



**Value**

The integrated rules engine automatically detects events, while customized solutions can be independently created by departments.

**Your benefits at a glance – advantages with the INDUTRAX Toolbox:**

- Less effort:** Easily adjust workflows via self-service or low-code – from barcode scanning and geofencing to sensor events.
- Faster productivity:** Preconfigured building blocks for typical production and logistics scenarios allow you to start with 80% of functionality ready.
- Future-proof and robust:** Open standards, real-time capability, and industrial-grade reliability ensure durable, stable processes even with replacement of technologies.
- Real-time transparency:** Tracking, sensors and e-labels provide precise information – employees always know where objects are and what happens next.



**In short:** With IAE, you transform your shop floor into a digital, smart workspace, where processes are intuitively controlled, optimized and transparently monitored – tailored to your needs. Digitalization becomes tangible, effective, and immediately usable.