

## TIM

### TRAPO INTELLIGENT MANagementsystem

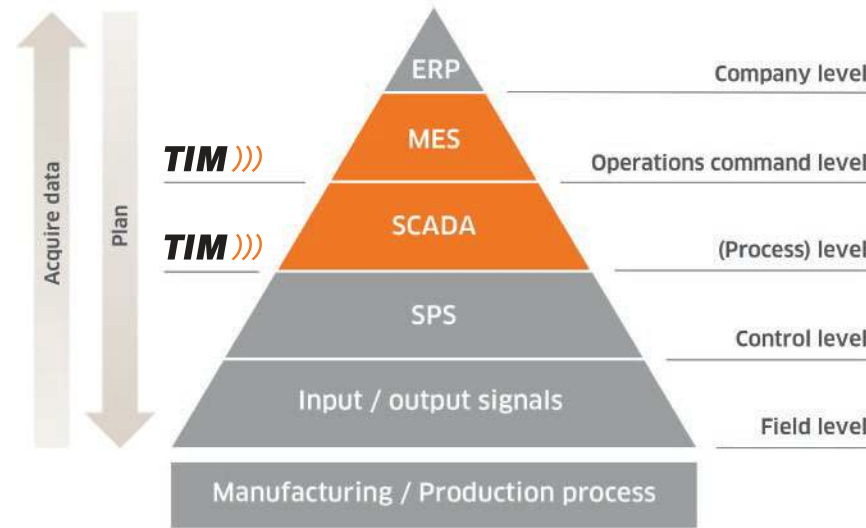


TIM was already introduced in 2018 in the TRAPO technical center for the needs of plant and mechanical engineering as an ME system (Manufacturing Execution System). TIM is industry-independent, can be configured by the customer, connects production systems and also includes third-party systems.

#### Plant monitoring

TIM monitors processes in production and intralogistics based on specified OEE performance.

With TIM, customers have an overview of their company key figures in real time. TIM can be integrated into the customer's ERP systems.



#### Plant operation

TIM offers a web-based, user-friendly HMI (Human Machine Interface) user interface.

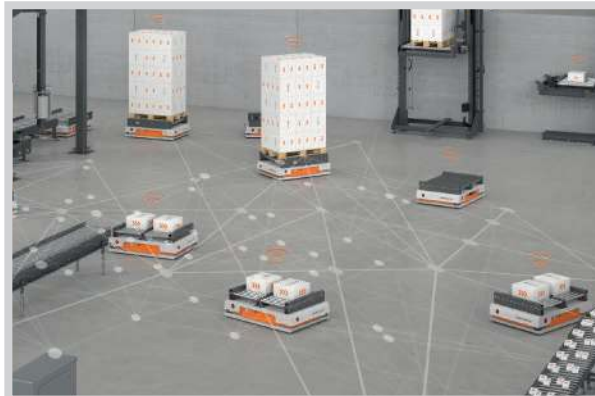
#### Plant optimization

Continuous monitoring and the data collected from it enable targeted optimization of the monitored plants. In addition, TIM specifies the optimal time for predictive maintenance – and simplifies ordering processes by providing a digital shopping cart.

#### Control of autonomous systems

At the process level (SCADA), TIM acts as a data highway for the fully-automatic route calculation and control of shuttle fleets of the TTS series.

The vehicles move freely along predefined traffic routes meaning that even changes in the driving route can be implemented with little effort.



#### Headquarters

**TRAPO**   
Automated Intralogistics

TRAPO GmbH  
Industriestraße 1  
48712 Gescher-Hochmoor | Germany

Fon +49 2863 2005-0

info@trapo.de

www.trapo.de

#### Subsidiaries

**TRAPO**   
Automated Intralogistics

TRAPO America, Inc.  
805 Satellite Blv  
30024 Suwanee, GA | USA

Fon +1 678 288 3491

info.america@trapogroup.com

www.trapogroup.com



**TRAPO**   
Automated Intralogistics

TRAPO Italiana S.r.l.  
Via del Lavoro, 50  
31016 Cordignano TV | Italy

Fon +39 0438 911 391

info.italy@trapogroup.com

www.trapogroup.com



**TRAPO**   
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INNOVATIVE **END-OF-LINE SOLUTIONS** FOR  
SECURE, AUTOMATED PRODUCTION

65 years' expertise in machinery- and plant construction make TRAPO the perfect partner for automated tasks in production and intralogistics. Our systems impress through their flexibility, high-performance and economy.

In 2021 TRAPO won an award as a TOP 100 Innovator for the further development of autonomous systems; Top 100 is the largest and most important award for innovative strength in German medium-sized companies. At the beginning of the corona pandemic, TRAPO concentrated on strengthening and stabilizing supply-securing industries – and places its development focus on automation in the food and pharmaceutical industries.

#### We are at home in these industries

Food industry | Pet Food industry | Pharmaceutical industry & Medical technology | Logistics | Packaging industry | Automotive and Wheel industry

With in-depth mature sector know-how we handle unit goods and containers.



#### Partner in automation for the care sector

TRAPO experts automate production and intralogistics worldwide, install machinery, partial- and complex plants and support them by remote-support.

For more than 50 years, TRAPO has had its own stainless steel production to implement the strict specifications in hygienic design. The aim of the tailor-made, individual automation solutions: the harmony between economic success and the humanization of workplaces. Wherever possible, TRAPO engineers consider sustainable solutions, for example in the conscious use of resources.



**ALL FROM A SINGLE SOURCE**  
**TRAPO COMPLETE LINE SOLUTIONS**  
**HIGHEST QUALITY & SAFETY**

**TRAPO** | OVERALL PORTFOLIO





**TLS 3600** >  
TRAPO Loading System

## AUTONOMOUS TRUCK LOADING AND UNLOADING

TLS 3600: Safety and efficiency in the loading zone



**TSW Series** >  
TRAPO Stretch Wrapper

## LOAD SECURING

Optimum protection - reduced film consumption with the TRAPO Stretch Wrapper

## FLEXIBLE PALLETIZING SYSTEMS

- 3.1 High-performance layer palletizer (HLP 6000)  
Can be integrated into any environment with three basic variants. Compact, also uses spatial height, to palletize at different levels.
- 3.2 Portal palletizer for heavy goods and long distances
- 3.3 Palletizing with articulated arm



**HLP Series** >  
High-Speed Layer Palletizer



**HPS Series** >  
High-Speed Portal System



**HRS Series** >  
High-Speed Robot System

## PICKING

- High-speed processes: picking and positioning
- 1.1 Delta or articulated arm
- 1.2 TRAPO kinematic picker: 200 picks/min.



1.1



1.2

**HPPS Series** >  
High-Speed Pick&Place System



## FORMING MIXTRAYS

Picker line automatically forms mixtrays from single-sort trays

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**HLD Series** >  
High-Speed Layer Depalletizer



## DEPALLETIZING

Depalletizing at ground-level of 90.000 empty cans/per hour with HLD Series

Portal or articulated arm solutions - possible depending on product (see illustration)

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## GRIPPER TECHNOLOGY

Development and manufacturing: single and multifunctional grippers

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## WAREHOUSE LOGISTICS

TRAPO Warehouse Shuttle  
For storage and retrieval of individual goods and pallets

TRAPO Warehouse Lift  
Picks up TWS and moves in the warehouse into the required position



**TWS Series** >  
TRAPO Warehouse Shuttle

**TWL Series** >  
TRAPO Warehouse Lift

## SORTING- AND DISTRIBUTING SYSTEMS

For storage, retrieval and picking



**TSS Series** >  
TRAPO Sphere Sorter



**TOS Series** >  
TRAPO Omni Sorter

## VERTICAL CONVEYOR

Transports TTS to different spatial levels



## HUMAN ROBOT INTERACTION

Assistance robots cooperate on heavy or