IFD

WE THINK AROUND THE BOX

WAREHOUSE MANAGEMENT SYSTEM

complex processes
– easily operated

IFD
WE THINK
AROUND THE BOX

Chemnitz

Munich

Sofia

Moscow

Singapore

The **iFD GmbH** plans, develops and implements software systems for automated and manual fields of intralogistics worldwide. The range of products and services consists of:

> › Warehouse Management System
> › Material Flow Control System
> › Forklift Control System
> › Picking Solutions
> › Simulation
> › Individual Software Solutions
> › Service and Support

iFD GmbH owns an independent research and development department. This is an important requirement to guarantee a permanent innovation and advancement process for all software systems and add-on components.
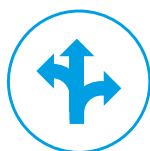
Since the founding of the company in 1990 iFD realized over 300 cross-industry projects.

A continuous development and active research projects, as well as an ongoing improvement of concepts and products are a guarantee for success for adapted software systems. These software systems represent the perfect logistic solution for multiple national and international customers.

CONTENTS

MODULAR WAREHOUSE MANAGEMENT

RECEIPT OF GOODS

> goods delivery
> collection against delivery note and payment advice
> management of empties incl. account management
> automatic warehousing incl. goods identification and labeling
> loading unit formation
> QA check
> dock & yard management
> crossdocking
> returns handling
> supplier portal

WAREHOUSE MANAGEMENT

> client and multi stock handling
> consignment
> permanent warehouse reorganisation
> relocation according to general criteria:
  - access times, ABC, route optimisation, slotting, article clustering, seasonal stock control
> consolidation
> VAS control and billing, storage charges
> serial number handling
> multilevel, automatic replenishment
> repacking and stock reorganisation
> proven inventory procedures
> dangerous goods storage

TRANSPORTATION MANAGEMENT

> paperless transport management with priority control in real time
> resource-optimised vehicle and employee control
> optimised transports through
  - forklift control system, tugger train control system, automatic conveyor systems and AGVs
> alternative calculation with provision time forecast

CONSIGNMENT

› daily requirements forecast
› two-stage picking, sort & pack, pick2pack
› demand-driven dynamic picking zones
› route-optimised order calculation
› consolidation & multi-circle picking
› package and shipping optimization

PRODUCTION MANAGEMENT

› sequencing for JIT & JIS
› production supply according to multi-level part lists
› kit creation
› utilization forecast
› electronic kanban control

GOODS ISSUE & DISTRIBUTION

› charge optimised and tour accurate shipping preparation
› digital CEP connection (for example via web service) with
  label retrieval and notification
› packing
› packing instructions & loading monitoring
› freight costs calculation
› customs connection

PERFORMANCE & OPERATING FIGURES

› digital control station
› graphic dashboards for order control, resource management,
  shipping provisioning, receipt of goods and urgent goods
› resource cockpit for transport control
› warehouse visualization
› comprehensive journalization
› KPI measurement

Warehouse

FLEXIBLE
PROCESS DESIGN

❯ modular system with industry-specific components for (e.g.) the automotive industry - with JIT and JIS planning logics or for the handling of dangerous goods

❯ Integrated set of regulations - like warehouse or picking regulations - enable permanent system adjustments without additional programming effort

❯ variable WMS frontend or individual design of masks and dialogues

❯ WMS ailability: cloud or SaaS solution and on-site hosting

Intuitive user guidance

The WMS provides a comprehensive feature set and depth. iFD customers can choose from a wide range of direct influence on the design of the processes. From the simple system for inventory management up to complex warehouse management including powerful control for highly complex logistical requirements – the iFD-WMS offers for every company the right solution. Each warehousing technique can be done directly or via a WMS integrated material flow control system (MFCS).

Customised interfaces

In addition to standard market systems, there is a large number of industry-specific systems and in-house developments. For this reason, iFD has focused on customer-specific interface adaptation of HOST and subsystems. The WMS offers standard interfaces to a variety of ERP systems, shipping companies, online shops or even shipping and customs software.
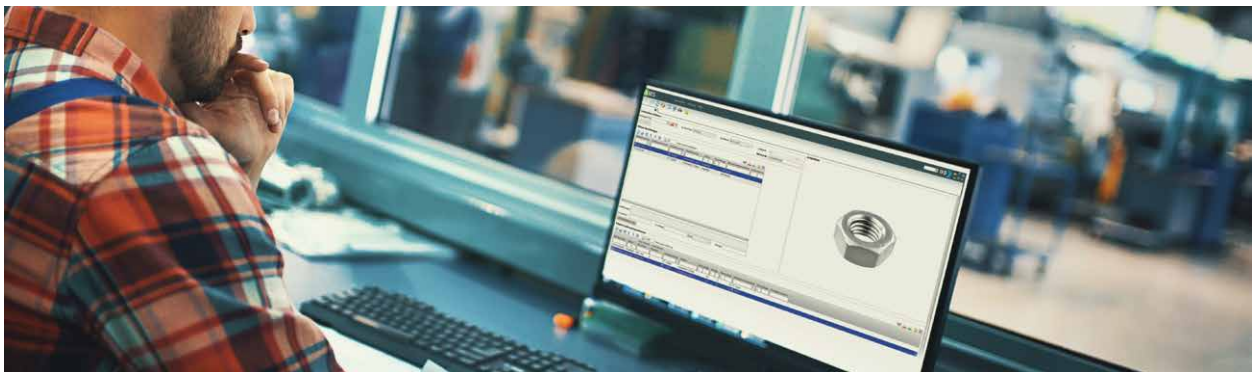
Flexible hardware concept

The WMS can be either embedded into the customer's IT landscape directly - mostly on a virtual machine (VM) or as highly available cluster solution - or the system will be provided as a cloud solution from the iFD network. Together with the customer the iFD will find the optimal operating concept. The WMS impresses with database and operating system independence, which is an optimal basis for a growing system.

TRANSPARENCY WITH REPORTS & STATISTICS

> Validated KPI system for the evaluation of internal processes and targeted control of the entire intralogistics

> Complete monitoring through a personalised dashboard, with access to archive and history data

> Powerful warehouse visualisation enables direct adjustments during operations

The license-independent **warehouse visualization** creates a central overview of the entire warehouse. The complete overview can be divided into seperate areas right down to the detail screen for separate warehouse aisles with detailed information about the places. Troubles will be reported by coloured pop-ups. This enables immediate trouble-shooting. The complete integration into the WMS allows direct process interventions directly from the visualization template.

The motivator is an excellent instrument for performance increases and serves as an incentive to achieve goals. It can be placed directly in warehouse or production areas to inform workers about current achievements. Data and display options can be set individually. Large journals provide a complete transparency of processes. The entire process chain can be tracked on user or process level.

The dashboard shows all the important information about the current state and the utilisation of the entire warehouse. Quick adjustments can be made through colour changing state displays in critical moments.

PROCESS OPTIMISED HANDLING

› Easy and intuitive operation guarantees fast orientation and high user-friendliness

› Integratabilty of images into detail masks and linking to further information

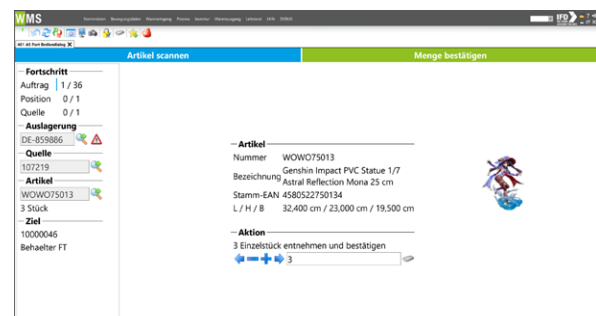› Detection and prevention of input errors through special plausibility check

Excellent user friendliness

Easy and intuitive user guidance is a basic requirement for accurate and efficient work. The WMS has adaptive masks. Frequently used terms, destinations and transports will be automatically saved and displayed to the operator as a quick selection option for future inputs. The frontend is specially designed to make quick and well-founded decisions. It presents all important information at a glance and links via icons to detailed information.

Clearly arranged operating dialogues

The content and structure of the dialogues will be discussed with the customer according to their process and can be precisely adapted. In order to secure the acceptance of the operators, the workflows and company-specific vocabulary will be integrated into the operating dialogs. The user is supported by clear instructions through the process. Inputs can be made via scan or touch. Input times will be reduced to a minimum through smart consolidation.

MODULES AND ADD ONS

❯ Connection of AutoStore, electric hanging &
  ground conveyor, conveyor and storage technology
  – WMS meets the highest automation requirements

❯ Optimal transport control with the forklift control system for:
  forklifts, trucks, tractors, tugger trains and driverless transport systems

❯ Order picking via voice, light and vision technology

Picking with the WMS

For fast, error-free and paperless picking the WMS provides the following modules:

❯ Pick-by-Vision
  – visual order picking via data glasses
❯ Pick-by-Light
  – order picking via eye-catchers at the shelf
❯ Pick-by-Voice
  – voice controlled order picking via headset
❯ Pick-by-Scan
  – order picking via mobile equipment

All modules are compatible with any hardware technology, completely paperless and with the scalable structure permanently expandable. The communication with end devices happens via UMTS or WLAN. Following the hands-free approach the worker concentrates on his core activity.

Compact warehousing with AutoStore and WMS

Product safety and stock accuracy are factors to speed up order processing and reduce the time required with a lower error frequency. The compact goods-to-man warehouse solution optimises routes and storage volumes. Significant cost advantages can be achieved with that. Other functionalities such as weight recording and quantity control at the port or integrated article images facilitate handling for the order picker.

Automation in WMS

The WMS contains the mapping of different sequencing strategies for the highly complex JIS- and JIT requirements. An integrated vehicle control system connects driverless transport systems and electrified monorail systems coupled to a powerful plant visualization system and allows direct intervention possibilities into the process control.

CUSTOMER-ORIENTED PROJECT REALIZATION

❯ Many years of project experience and comprehensive logistics know-how guarantee a competent conception and preliminary planning. Project-related emulations ensure functionalities and target performance

❯ Simulation incl. 3D visualization for system and performance dimensioning as well as real-time simulation for permanent process optimization

❯ Modernisation and retrofitting with the help of proven migration concepts including return on investment analysis

Robert Hertel
Division Manager WMS

Logistics modernization

Tried and tested migration concepts and the longstanding co-operation with automation companies make the iFD a strong partner when it comes to the replacement of legacy systems and their technology. Perfectly coordinated step concepts make it possible to use operation-free times for the conversion to the new system while keeping the entire time a possible return to the old system open as a back-up option.

Safety through simulation

Based on a logistics concept as well as a defined target performance it is already before the realization of the project possible to use a 3D simulation of storage and conveying strategies to define and dimension plants and bottlenecks. Unique key figures provide the basis for investment decisions.

Security consulting and conception – IT basic protection

The iFD provides deliberate and secure IT concepts and handles procurement, configuration and the installation of matching hardware components. The conception and software development fulfills the highest safety requirements according to BSI standards.
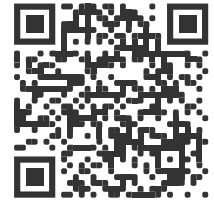
Emulation

The implemented processes and interfaces are reproduced with tested emulation tools and detailed iFD test procedures. The test procedures guarantee that the WMS is stable and can be integrated into the system without any problems. After go-live the emulators provide support for the validation of future process adaptations.

TESTIMONIALS
OPINIONS

„We would like to thank the entire iFD team for the successful and fast implementation of our requirements. Our primary goals were to ensure the efficiency of storage and retrieval and to implement the integration into our existing WWS. This was fulfilled to our complete satisfaction. Right from the start, we felt we were being given very competent and understanding advice."

Kerstin Gramß
Manager, Gramß GmbH

„During the transformation of heo logistics from a manually operated to a partially automated new warehouse, it was important for us to find reliable and professional partners. iFD played a key role with the warehouse management system and the material flow control system. Despite the difficult framework conditions in the middle of the corona pandemic, the project was able to start and also be successfully completed. iFD proves to be a very solution-oriented an important part of the CIP Process with their constant improvement of processes. The iFD contacts are characterized by their trusting and solution-oriented cooperation."

Michael Nauerth
Director Supply Chain Management & Logistics,
heo GmbH

"iFD brought in innovative solutions and fully implemented the project within the agreed time and budget. Characteristic of the cooperation was the particularly high resilience and flexibility of the iFD employees. As a result of the project, we were able to reduce personnel costs by around 50% while increasing the number of picks by 15%. The greatest advantages of the new solution are high ergonomics, better utilization of employees, shorter throughput times and the reduction in picking and loading errors. For our company, this means ensuring a high level of service to our customers while growing and reducing logistics costs at the same time."

Stefan Ostertag
EMEA Network Director, Friatec GmbH

"We use the Warehouse Management System (WMS) to control our fully automated, oxygen-reduced hazardous materials warehouse and the manual processes in our logistics centers. This means that we have 105,000 Euro parking spaces across all locations, which we are currently managing with great success using WMS.

During the conceptual design, the focus was on the central and quickly scalable material flow control, a jointly developed hazardous goods/hazardous substances module and finally a performance-oriented billing module."

Andreas Pedalina
Leiter Projektmanagement Logistik, LSU Schäberle