PSI Logistics GmbH

Dircksenstraße 42-44
10178 Berlin (Mitte)
Germany
Phone: +49 30 2801-2850
Fax: +49 30 2801-2851

info@psilogistics.com
www.psilogistics.com

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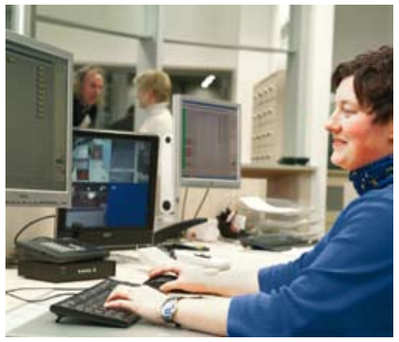


PSIwms - Warehouse Management Software in the Logistical Network

PSI Logistics

Future-oriented flexibility

Software for comprehensive total solutions

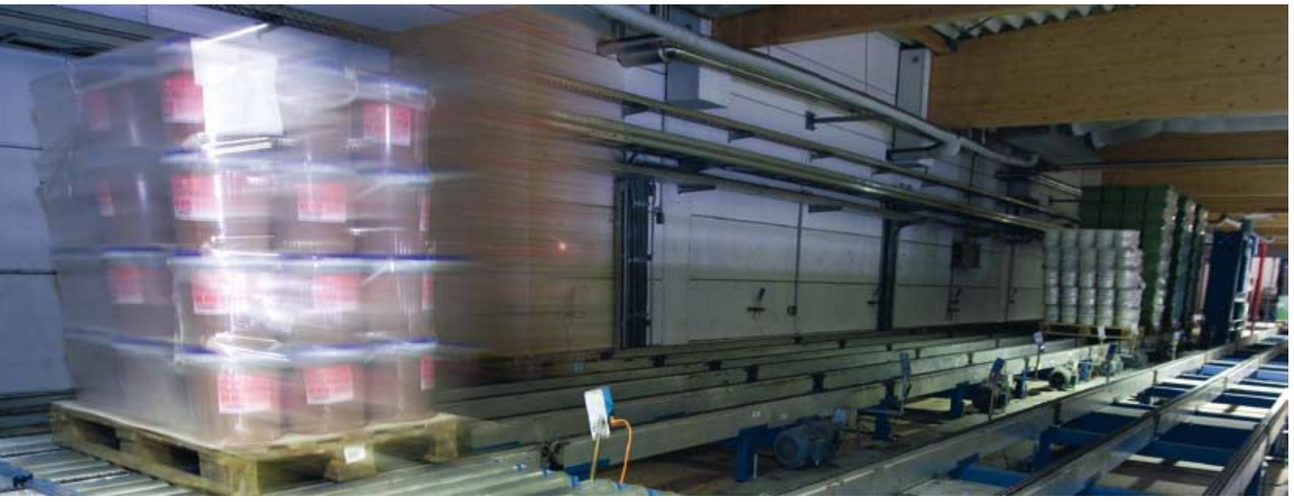
Flexibility, efficiency, transparency, sustainability and information interchange: Software solutions are the backbone of modern logistics. For this reason, users require the most comprehensive solutions possible and long-term investment protection.

To meet these requirements, PSI Logistics focused on the development of a comprehensive, integrative product range for transparent material flows and efficient logistics management at an early stage. The software systems of PSI Logistics provide the maximum amount of flexibility for local warehousing applications and the handling of cross-location and global processes. This includes optimising existing business processes and generating and supporting new processes as well as integrating and using new IT structures, technologies, and functions in existing IT worlds like, for example, elements from the SAP environment.

To make this possible, PSI Logistics implements a consistent customer orientation. Continual customer surveys and collaboration with user organisations form part of the company's constant dialogue with customers. In addition, market requirements and innovations generated by PSI Logistics on the basis of formative collaboration on research projects and sector-wide bodies are consistently used as the basis for the further development of products and services. This makes PSI Logistics into one of the most authoritative technology and innovation leaders in the logistics market. All systems have a modular design and can be configured in a project-specific manner. They can be enhanced as required or combined with other PSI software systems. The technology transfer and support of this listed corporate group with locations all around the world provide customers with investment protection and maximum quality.

Investment security with added value

High integration possibilities and modern base architecture



As an independent manufacturer of software for logistics applications and a believer in aspect and service orientation, PSI Logistics applies modern IT developments to the architecture of its systems in a timely manner. This gives rise to a host of advantages for customers. In addition to features that are already considered standard for this market - such as modular design, standardised interfaces, and project-specific configurations - PSI Logistics software solutions provide users with investment protection and future-oriented added value.

The modern system architecture ensures the optimum integrative capability of the software - even for integration into the SAP environment, and enables the integration of the latest communication technologies (such as RFID) and differentiated picking strategies. Upgradeability forms the basis for a long lifetime while maintaining compatibility with the current state of technology. In addition, PSI Logistics is certified in accordance with ISO 9001. This means that software development and customising are based on a special software quality management (SQM) system. It supports the development of an extensive, customised standard system right from the specification stage and, of course, during the implementation phase, too. This results in flexible systems with competitive advantages for the user.

PSI Logistics software solutions ensure transparency, efficiency, flexibility, and control - both for the software and for the consultancy and impementation process. Thus, the systems form the basis for high availability, perfect service, optimum quality, and a future-safe investment.

Investment security with added value

Flexible systems with competitive features

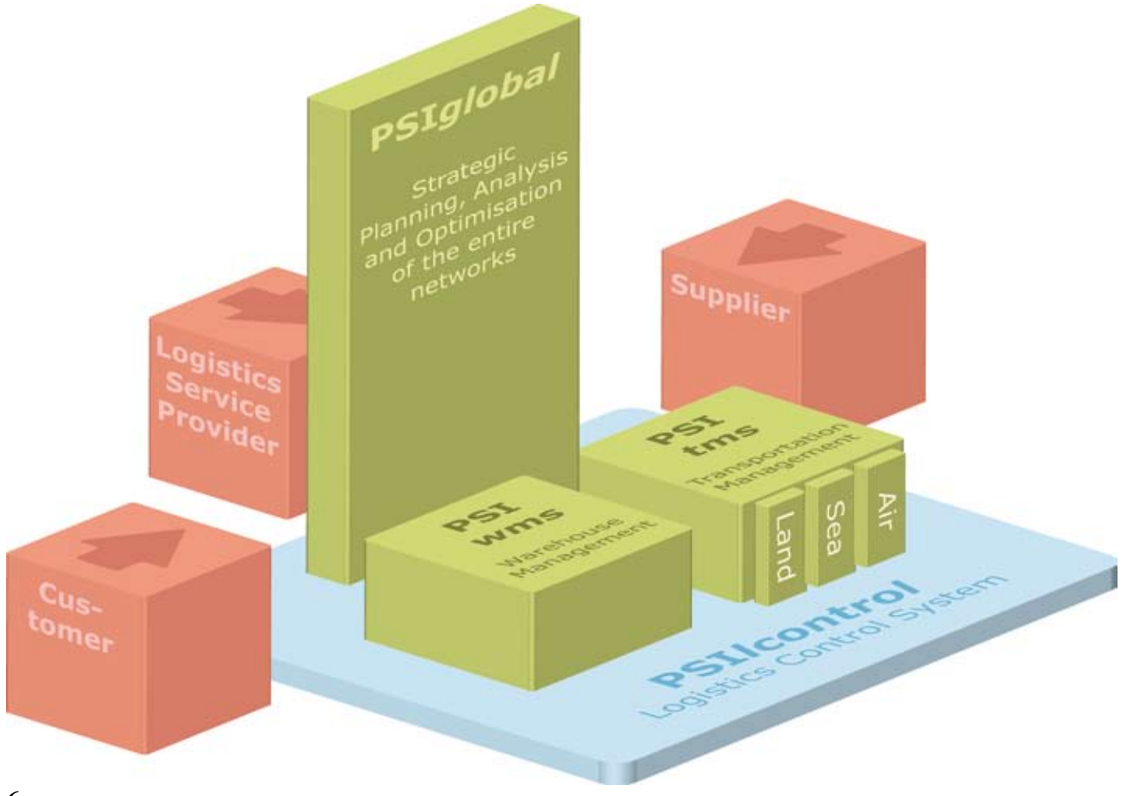
All new PSI Logistics developments concentrate on making business processes more flexible. With this in mind, the systems are optimally designed with modern architectures and enabling technologies. This allows products to be tailored in line with the individual requirements of the user during customising. The range of standardised interfaces enables the connection of other systems and the optimum integration of the software into existing IT infrastructures. In addition, PSI software offers numerous management functions. These functions make business processes transparent and flexible.

The basis for this is a combined project management/prototyping procedure and an automated test procedure developed by PSI Logistics. This procedure serves to safeguard an on-time installation, project documentation, and integral project management. This exceptional combination enables short implementation times and low costs. A run-capable prototype of the standard software is made available early on in the project phases. Also, as the standard software is modified and configured in line with the individual requirements of the customer, required new functions and modified interfaces can be promptly tested with regard to their effect on the overall system and quickly integrated. This results in excellent software quality. Ultimately, the flexibility of the software also promotes the optimisation of existing business processes and the generation of and support for new processes. The high integrative capability of the software provides a solid basis for the integration and use of modern IT structures and new IT technologies and functions - even in existing IT infrastructures such as the SAP environment.

Unique product range

Designed for maximum integrative collaboration

PSI Logistics has a unique product range for the strategic, tactical, and operational planning, control, and optimisation of logistics networks. A special feature: The systems' high potential for integration enables each piece of software to be used as a standalone product, to be operated in conjunction with other standard PSI products, or to be integrated into the existing IT landscapes of other manufacturers. Thanks to a modern architecture and a wide range of standardised interfaces, PSI Logistics software is designed for a high level of integrative collaboration. For example, PSI Logistics competence in the SOA field and SAP NetWeaver gives rise to a large number of possibilities for integrating the company's specialist software products and logistics applications into an SAP ERP environment with no discontinuation of media. The high flexibility of PSI products is reflected not only in the high integrative capability but also in the degree of optimisation that the software offers for the modelling of changing business processes. This means that the company's different

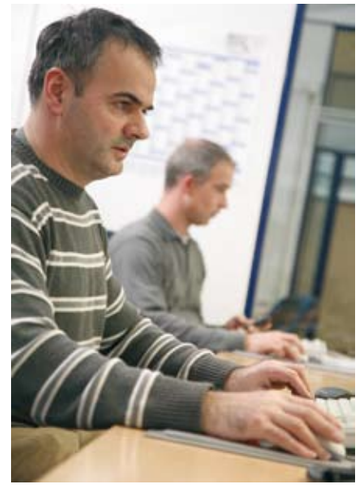


Smooth material and information flows

Unique product range

Control and optimisation across company borders

products - each of which is a piece of software with the character of an individualised system - complement each other comfortably with their functions. For example, the PSI*tms* transportation management system complements the PSI function modules of PSI*wms* for the planning and control of operational processes and resources, regional and cross-location order management, material planning, controlling, and monitoring. This results in a powerful system that can be used to fully realize the potential for the control and optimisation of the entire transport chain.



The logistics control system PSI*lcontrol*, currently one of the most up-to-date control systems on the market, gathers data from defined subsystems to enable the visualisation of processes both within a production location and across company borders. In this way, PSI*lcontrol* is able to convey the status of complex logistics processes, reduce efforts when processing exception situations, and ensure smooth flows of material and information with extremely short cycle times and with optimum capacity utilisation. The integrated platform system PSI*global* boasts simulation functions that allow planning for entire distribution and procurement networks practically at the click of a mouse, from location planning to the determination of the required resources for transportation and warehousing; it also allows you to check the efficiency of your plans.

Along with other specific logistics systems such as the advanced airport solution PSI*airport*, a comprehensive integral system for the planning and control of all involved airport processes and the exchange of all relevant information, these systems provide users of PSI Logistics with a complete product range for the holistic monitoring and steering of complex logistics networks. This constitutes a unique product range for enabling efficiency and sustainability in logistics.

A focus on business processes

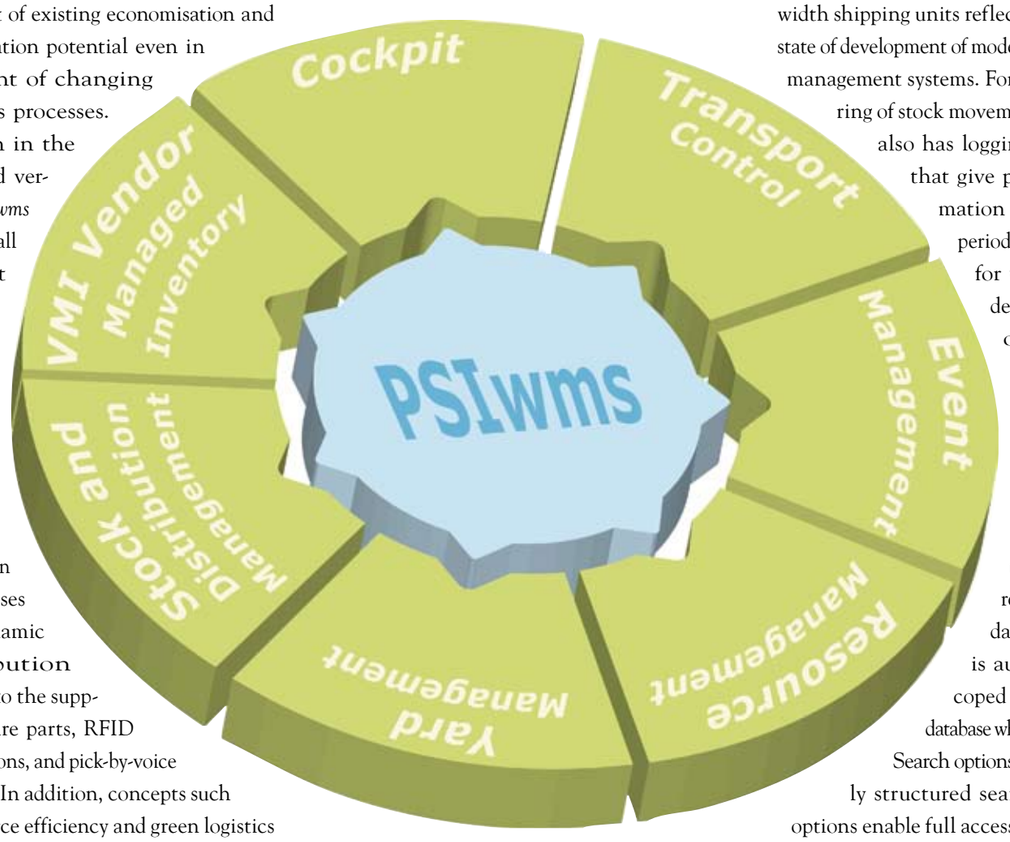
Standard modules for the most important market demands

Efficient warehouse management involves more than just the management of stock. It also involves business process flexibility, picking, quick access, short lead times, availability, (global) procurement and distribution, efficient resource management, green logistics, and much more.

In light of this, PSI Logistics developed the modular PSI*wms* warehouse management system, a standard piece of software with the character of an individualised system. Since its development, this software has proved its worth to renowned international users in several hundred implementations. Thanks to its consistently aspect-oriented system architecture and extensive management and materials management functions for the sustained optimisation of stock, PSI*wms* is one of the most up-to-date, cross-sector warehouse management systems available. The warehouse management system has seven basic modules with tried-and-tested practice-oriented functions, the maximum possible level of integration capability (including with the SAP environment), and a high level of optimisation - all in order to support the control, coordination, and processing of material and information flows. PSI*wms* thus provides an ideal system structure and gives users the level of flexibility required to make the most of existing economisation and optimisation potential even in the light of changing business processes.

Tried-and-tested, practice-oriented functions

Even in the standard version, PSI*wms* supports all relevant warehouse types, strategies, and technologies from production warehouses and dynamic distribution centres to the supply of spare parts, RFID applications, and pick-by-voice picking. In addition, concepts such as resource efficiency and green logistics strategies can be applied. PSI*wms* is characterised by its easy-to-use, practice-oriented user interface. Its work screens can be precisely tailored in line with the individual requirements by means of user-specific configuration options. Functions that support the formation of collective shipping units and the splitting of partial orders and functions for dynamic putaway strategies for excess-width shipping units reflect the current state of development of modern warehouse management systems. For the monitoring of stock movements, PSI*wms* also has logging functions that give precise information on the time periods and postings for which stock deviations have occurred. In addition, the software has a host of archiving functions. Less relevant data that is not required during daily operations is automatically coped to an archive database where it is stored. Search options with logically structured search and sort options enable full access to the information in question with the shortest possible response times.



Last but not least, PSI*wms* can be used for multiple sites. In other words, this software can manage and schedule stock and movements in multiple locations, thus tapping into a range of synergy effects. In this way, the cross-location monitoring and controlling of processes with PSI*wms* and the possibility of accessing goods stored at a remote location enables the extensive automation and simplification of operational clearing processes. This results in greater flexibility, the maximum possible level of cost efficiency and transparency, and thus a future-safe investment for efficient business processes. Moreover, by providing a technical basis for future integration stages, platform connections, and services, PSI*wms* also opens up further technological possibilities. Like for all software products by PSI Logistics, all benefits of the software quality management system also apply in the case of PSI*wms*, including prototyping, quick implementation, upgradeability, and low total costs of ownership.

Multi-site capability to tap synergy effects

Lastly, even the standard version of PSI*wms* supports multiple languages and can be used for all important economic areas.

Optimised business processes

Transparency and the management of multi-layer logistics networks

Stock and distribution management

Stock and distribution management for warehouse management is, along with transport control, one of the central standard modules in the PSI*wms* warehouse management system. With a clear, tried-and-tested user interface, this module focuses on the control and smooth interconnection of informational and operational warehouse processes. It aims to increase the efficiency and transparency of warehouse processes and to improve flexibility for the optimisation of business processes.

Functions for client-capable stock and distribution management - which are tailored in line with market requirements - enhance intralogistics with continual stock entry, the management of all required key data, and a range of sophisticated strategies for time- and distance-based picking and putaways, withdrawals, and stock transfers. This gives rise to the minimisation of stock levels and perfect warehouse utilisation. In addition, it enables the optimised use of human resources. Thus, stock and distribution management ensures high delivery quality and transparency for all warehousing processes.

Thanks to its functions for distribution processes, the software also provides a solid basis for packaging material optimisation, the planning of shipping methods and transportation capacities, and the management of interlinked, multi-layer distribution networks.

The standard configuration includes interfaces to superimposed IT systems such as SAP R/3 and PSIpenta and to downstream control and regulation systems, thus enabling trouble-free system integration.

The visualisation feature, which is an optional enhancement to the stock and distribution management offering, allows authorised users to access integrated warehouse utilisation monitoring and analysis functions with just a few clicks of the mouse. This enables changes relating to planned destinations, overloads and underloads, and deadline overruns and underruns to be recognised and counteracted early on. This results in the optimum planning, control, and monitoring of lead times and resources as well as the minimisation of lost time.

Consistent monitoring and warehouse resource analysis

Proactive control

Tools for managing complex processes

Event management

Managing and monitoring complex processes with easy-to-use tools - that's the concept of the PSI*wms*'s user-friendly event management module. The individually configurable system enables the automated monitoring of defined, user-specific processes. This takes the burden off planners and managers. Any deviations from defined target states are displayed in the warehouse management system connected to the event management system or are sent to the user by SMS or e-mail. This enables appropriate measures to be initiated early on and binding delivery dates or quantities to be upheld, thus reducing expenditure on subsequent deliveries.

Control and monitoring of data exchange

Vendor-managed inventory

The vendor-managed inventory module constitutes an example of the degree of efficiency with which PSI*wms* can be tailored to act as a specific industry solution.

The supplier or logistics service provider uses the vendor-managed inventory module to monitor the managing and topping up stock levels on the basis of firmly agreed limit values. Extensive information interchange between the involved companies forms the basis for the effiency of relevant procurement processes.

This PSI*wms* industry module has a range of functions and application options that are specially designed to meet these requirements. This includes traditional, client-capable stock management for a consignment warehouse, automated information and replenishment, and the administration and visualisation of basic VMI data. In addition, the VMI module offers special functions for calculating order quantities on the basis of demand planning, controlling and monitoring data communication between the involved IT systems using standardised interfaces (EAI), and controlling and monitoring all processes and defined statuses. There is also a multi-level warning system for the detection and de-escalation of exception situations. The module gives rise to collaboratively interlinked flows of information and goods, consistent stock security, an improved ability to deliver, and an optimum basis for collaborative planning.

On-demand resource utilisation

Timely processing of transport orders to correct destinations

Transport control

The PSI*wms* transport control module provides a system for controlling internal transportation and document-free picking for stock and distribution management. As an efficient tool for the coordinated organisation of routes for intralogistic transport and picking orders, this tool acts as an intelligent link between IT and the physical material flow and is thus the ideal complement to pure warehouse management, production planning, and retail information systems.

The transport control module allows routes to be checked in advance when allocating internal transport orders, thus ensuring that transport and picking orders are processed in a timely manner and that goods are delivered to the correct target location. Optimised transport strategies enable human resources and conveyor equipment to be deployed as efficiently as possible. This gives rise to a two-figure percentage improvement in efficiency, high delivery quality, and consistent flexibility.

Yard management

The PSI*wms* yard management module is responsible for ensuring the best possible utilisation of available resources and the optimum coordination of trucks arriving to be loaded and unloaded. It aims to increase the potential for economisation in the external areas of warehouses, reduce coordination efforts for planners and for processes at loading ramps and gates, minimise waiting times, and raise throughput.

To enable this, the loading and unloading processes of available trucks are recorded in the yard management system, their key data is managed, and the vehicles are assigned to specific loading gates or parking positions in the most efficient way possible using Drag&Drop. In parallel to this process, the pending loading orders are allocated to the gates. Communication with the truck drivers is realised using large display panels or by sending an SMS message to the driver's mobile phone.

On-demand resource utilisation

Control station with cockpit function for all processes

Resource management

The resource management enhancement module links current order requests with the resources available in the warehouse. This enables the required completion or production times or - in the case of fixed deadlines - the required resource capacity to be generated and depicted as a ratio. This is based on the default data for the warehouse in question. The resource management system can be used to prepare graphically modelled dialogue processes. Simple simulations can then be used to determine time and resource utilisation alternatives. This results in the on-demand use of resources and timely order processing.

Control station

The PSI*wms* control station is an efficient tool for reducing costs and lead times in logistics centres and improving performance by enabling flows of goods to be examined in a manner that is as integral as possible. It acts as a cockpit for all processes in warehouses and logistics centres. As a central collection and filtering station, the module enables the comprehensive display of current situations, states, and time processes in the warehouse and gives logistics managers a quick and concise overview of the status of complex processes. The screen displays can be completely customised in line with the requirements of the user. The required information is displayed on the screen with just a few clicks of the mouse. Deviations from target values and states, deadlines, or goods criteria can be quickly detected and eliminated in this manner. The control station module thus provides a solid decision basis for user-defined and managed processes and helps to achieve two-figure percentage productivity gains.

Decision basis for user-controlled processes

A partner-like relationship with customers

After-sales services including training, maintenance, and support

Customer satisfaction and orientation are of the utmost importance for the project management team at PSI Logistics, member of which see themselves as partners of their customers. This partner approach is applied right from system planning and development through to production and installation processes and after-sales service.

Even during the implementation phase, PSI Logistics offers employee training in using the new software and helps employees to understand how the system works. There is a range of support and maintenance options that ensure that the system technology is regularly checked and that the system remains available.

In addition, internal PSI quality management procedures ensure more than intensive communication with customers. The information gained is backed up by internal analyses and the results are used for future projects and products. This is because PSI Logistics uses dialogue with customers to decide upon the further development of products and services. This gives rise to market-driven, reliable, and high-quality standard products with a high level of optimisation for customers' business processes.