

Warehouse Management

The Warehouse Management Module is a comprehensive solution for warehousing. It is distinguished by its efficiency, immediate access and timeliness. Its high degree of integration allows to authorise access to the inventories from the most diverse parts of the business solution. Reliable data on availability and material demand are provided both to sales and production.

CASYMIR Warehouse Management includes the following functions:

- Demand analysis
- Batch tracing
- EAN coding
- Continuous inventory
- Inventory valuation
- Mobile data collection
- Picking system
- Storage location management

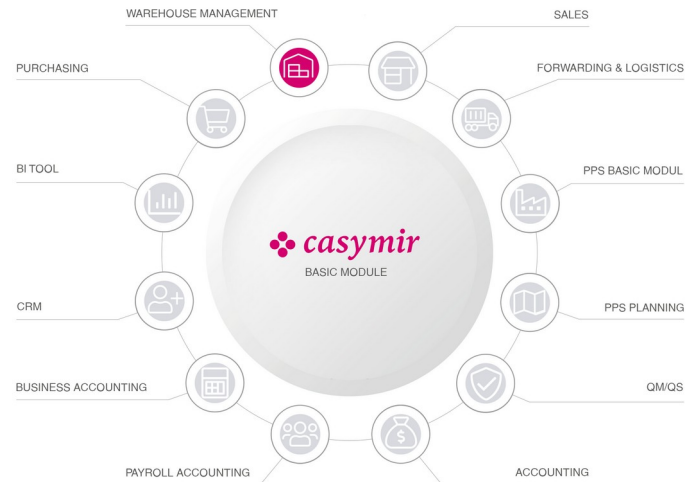
The add-on module 'Mobile Warehouse Management' is an ideal complement.

Article structure

Articles represent the centre of warehouse management. The article management is an integral element of the Warehouse Management Module. Besides basic data, such as article number, designation, article group, classification, properties, owner, tax code, CU, basic unit, and more, there is a series of additional information related to articles. The attributes to be specified are:

- Procurement type (in-house, external)
- Processing mode (normal, in batches, with serial numbers, both)
- Foreign-language designations
- Stock locations and places
- Suppliers
- Packaging units, container units, shipping units
- Prices (min., max., average purchase price)
- Manufacturing costs

Besides this default information, the article master can be completed by any quantity of freely configurable article attributes. For any additional attribute, the user may specify a freely definable values range. He may also define whether the attribute is mandatory or optional.



Storage

Through the definition of storage locations in the article master, the article becomes an inventory item, i.e., storable. The article master data define how the article is stocked (in batches, with serial numbers, packaged or loose, etc.).

Stock, outstanding produce and reservations are kept for each location. Based on this information, the procurement system can calculate an order proposal. Items are included in the order proposal as soon as the result of the formula [STOCK – RESERVATION + OUTSTANDING SUPPLIES] falls short of the target quantity.

Movements

Inventory items are booked into the system directly on entry. If an inspection specification is available in the PPS Module, the article undergoes an incoming goods inspection, the result of which is logged in the system. After labelling for internal purposes, the article is stocked. The WorkFlow Module allows to link the stock entry to an event triggering further treatment of the incoming goods.

If an article is booked out from the stock, the necessary accounting data will be required, e.g. the indication whether the material is used for a purchase (internal / external) or for a cost centre. This ensures that the material is accounted for in costing.

Every stock movement is logged with user data and time stamp in the stock journal. This log also serves as the basis of an inventory information system.

Demand analysis

Based on the incoming and outgoing quantities, statistics allows retrospective statements on how much material has been used for what purpose. Comparison of the periodical data enables requirement and trend calculations.

- Requirements estimations are calculated from the stock situation considering stock level, outstanding supplies, reservation, minimal stock and lot size.
- The calculation basis is as follows:
- Theoretical stock = stock + outstanding supplies – reservation
- As soon as an article drops below the minimal stock, it is added to the order proposal. However, order proposals may also be defined and configured on a customer order basis. They may also account for sub-quantities according to production jobs which have been marked for that purpose.
- Order proposals also constitute a period-based evaluation of sales or article turnovers. They can be sorted by stock locations or packaging units.

Inventory Information System / Batch tracing

Thanks to the comprehensive logging of all movements comprising the relevant information, the Inventory information system answers a series of questions in the twinkling of an eye, as the following example from PPS Batch tracing illustrates:

- Which customer was this batch shipped to?
- When was the batch produced?
- Show the production log of the batch.
- Which raw material batches have been used for production?
- Who supplied said raw material?
- When was the raw material supplied?
- Show the protocol of the incoming goods inspection.
- For which other products has the same raw material batch been used?
- To which customers have the final products concerned already been shipped?

Stock types and stock planning

Any kind of stock types can be configured. Amongst the most common are:

- Raw material stock, semi-finished product stock, finished product stock
- Test stock, quarantine stock
- Incoming stock, dispatch stock, production stock
- Provision room, intermediate stock, observation stock, reference specimenstock
- and many more

The pre-defined stock types can be refined by additional production or dispatch stocks. This helps to avoid «grey areas» with articles already withdrawn from the stock, but which have not yet been processed or dispatched.

Storage location management (manual / automatical)

Articles can be assigned storage locations manually or automatically. Naturally, the automatic storage location management will only consider free storage positions. The form of storage is not an issue: Whether the articles are stocked horizontally or vertically (e.g. high-bay or stacked), the implemented storage location management will solve this task quickly and reliably

Inventory valuation

Inventory valuation follows different definable methods. It can take place either related to closing dates or stock movements. Connection to the Financial Accounting Module ensures that the inventory value is always accounted for – with periodical actualisation, if required. This contributes to an «automatised» balance sheet.

Inventory

The Warehouse Management Module provides comprehensive tools for inventory support. Inventory can be on closing dates, batch processed or permanent. It goes without saying that legal requirements and implementing provisions are applied, including the German GOB standard.

Labelling management

Another strong point of the Warehouse Management Module is the extremely variable labelling possibility. Not only upon entry, but in relation with all article movements, stickers, tags or other labellings can be produced in different versions. The article labelling includes information e.g. on when an item was supplied, produced or dispatched. Naturally, the module also supports bar codes according to the most diverse systems, quantities, serial numbers, regardless of whether the label should be printed on paper, plastic or foil, be light-fast, waterproof or chemical resistant. There are hardly any limits to the labelling system when it comes to the production of stickers or other marking procedures.

Data exchange

Article master data, stock movements or stock levels can be exchanged to third-party applications at any time via the interfaces provided by CASYMIR. CASYMIR also ensures the consistency check of the incoming data.

Since CASYMIR is an open system, the complete master data as well as any other information are available online to third-party query tools at any time.

Access control is provided by the data base system itself.

Mobile Data Collection

The need of computer technology and software systems for mobile use has never been as big as today. Requirements related to mobile systems focussing on fast and accurate data collection and communication become more complex from day to day. Undeniably, mobility is more important for ever to businesses striving for competitiveness. The Mobile Data Collection Module supports them.

Hardware

Standard data acquisition devices for the Mobile Data Collection Module are portable mobile computers. These devices comply with the industrial norm IP54 (or higher) and are thus absolutely suitable for industrial use. They are also particularly popular due to their robustness and their excellent bar code scanners. Data communication via WLAN and WWAN supported. Our solution offers the following advantages:

- comprehensive configuration possibilities in order to adapt to all requirements
- graphical user interface
- safe wireless data transmission via RDP
- freely configurable keyboard and touch screen
- integrated bar code scanner support
- large scan range (from 10 cm up to 15 m, depending on the device)
- direct client / host connection
- automatic re-installation and set-up, e.g. after battery replacement
- hassle-free log on to the system by scanning user code, e.g. on employee badge

Order picking is one of the most labour-intensive areas within stock management. This also means an important rationalisation potential through workflow optimisation and automation.

The CASYMIR Picking System, developed over years and continuously improved, is designed for rough and hectic business routines and ensures highest customer satisfaction.

Picking System

The CASYMIR Picking System has been developed over years and continuously improved, ensuring highest customer satisfaction. Picking systems are of twofold importance in the process industry. They serve as an interface both to forwarders or clients and coordinate the commissioning of raw material and semi-finished products for production. Order picking is one of the most labour-intensive areas within warehouse management. This also means an important rationalisation potential through workflow optimisation and automation.

Application example

With the aid of this module, purchases or production orders can be commissioned very easily and efficiently online. The «picker» is connected to CASYMIR Order Management or PPS via WLAN. After the order has been called up by his device, the required articles and their storage locations are displayed. He collects the articles without the need to search and confirms the withdrawal via his handheld device. This can be done via keyboard or bar code scan, independently from the device. The booking is effective immediately and the stock level is updated. As soon as the picking order is completed, he hands the goods over for dispatch or for production, where they are booked into the dispatch or production stock. Simultaneously, all data concerning the article are updated in the ERP system.

The Mobile Warehouse Management Module can be used in all situations within the Warehouse Management Module, following the company's specific needs.