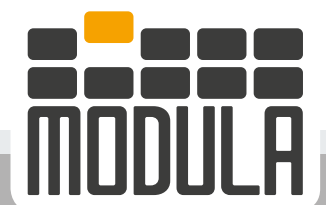




Modula Software

Think Vertical, Think Modula



Warehouse Management System

Modula WMS software is a complete inventory management software ideal for all Modula automated storage equipment, such as VLM's, vertical carousels and horizontal carousels as well as with traditional storage methods, such as shelving or racking.

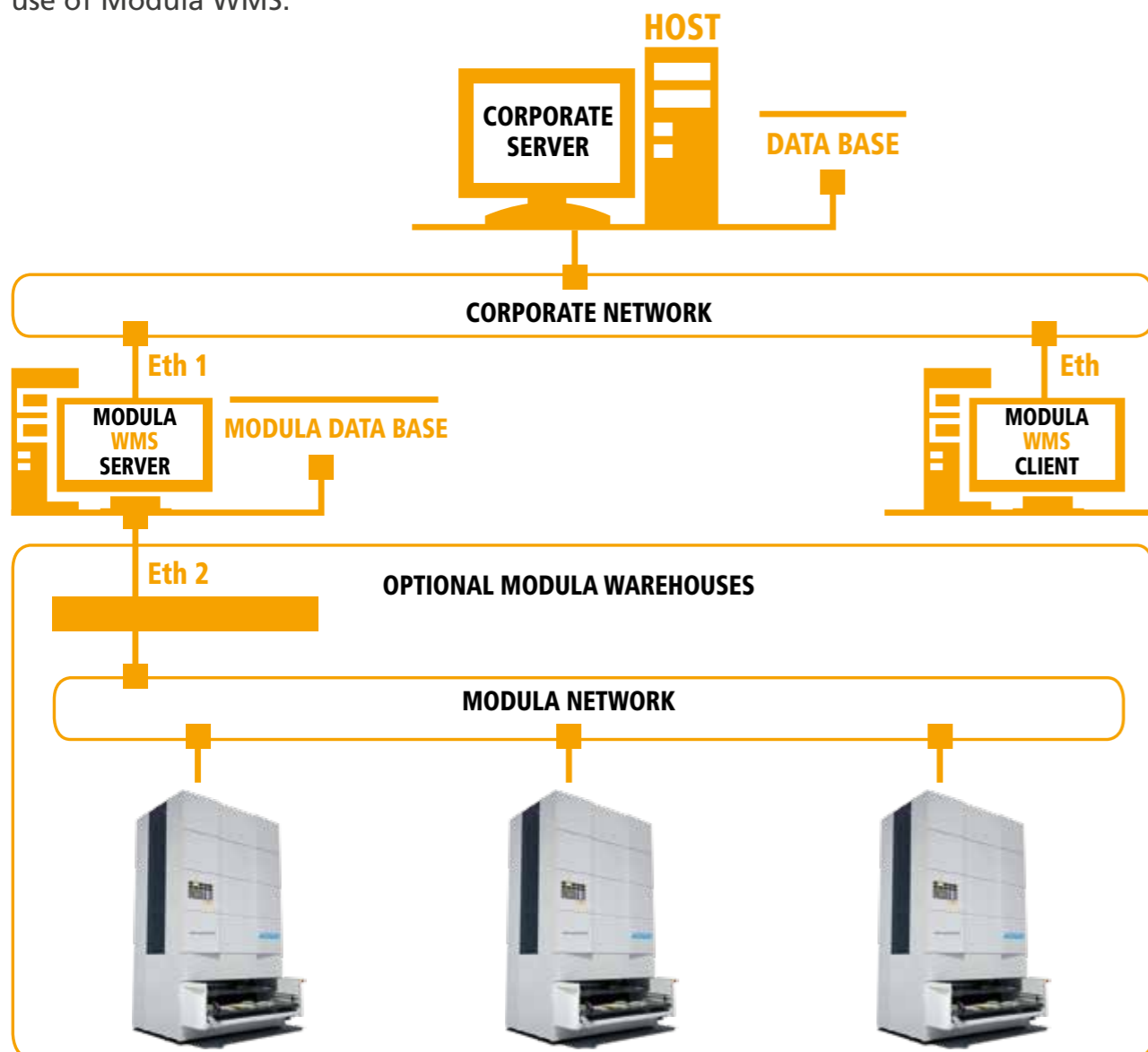
Modula WMS software can be used as the perfect complement to all Modula vertical units or even as a stand alone software tool for a traditional warehouse (manual areas).

Modula WMS allows real-time warehouse management via a **PC interface**.

All that's needed to be supplied is a PC to act as warehouse's server and a certain number of client PC's, depending on the number of storage areas or specific needs.

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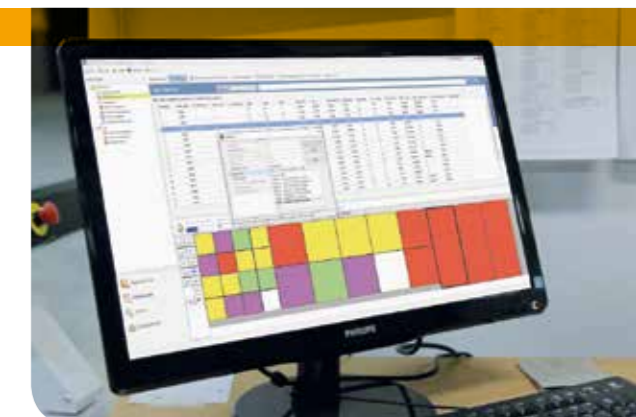
Modula WMS installs the **free Express version of SQL Server** which does not require any licenses. To use any of the more complete versions of the database engine, you may purchase the licenses as required. In either case the SQL Server database must be reserved for the exclusive use of Modula WMS.



Once you have chosen right software for your needs, which will already be predisposed to interface with your ERP, it will be installed by our team, who will also help train your staff through dedicated training programmes.

WMS INSTALLATION

Modula WMS software is installed by specialised computer technicians using a wizard that provides a rapid, guided installation procedure. Once the program has been installed on the server and on any clients, and the warehouse has been configured, the system is ready for immediate use.



Integration with a host management system

Our WMS's come ready for connection to any ERP through a series of interfaces. For integration with the company ERP, Modula provides blueprints for the creation of standard interfaces with protocols such as ASCII, DRC, XML etc..



Training

After installation and the initial configuration of the Modula VLM units, the staff that will be using the software will receive basic training in the use and operation of the software and its functionalities. On request, additional in-depth training sessions are available if required.



Your company doesn't have a WMS?

Choose the version of the Modula WMS most suited to your warehouse

BASE



MODULA WMS BASE

Modula WMS Base is considered our entry level package and is bundled with a Modula purchase; it is suitable for the management of one or more warehouses.

This package can manage a maximum of 3 users (i.e. 3 PCs) and 2 clients.

This package supports:

- Item register management.
- Warehouse locations management using a graphical tool.
- Materials handling management through pick/put orders.
- Materials handling management through immediate requests.
- User management with three levels of access.
- Management of physical inventories of the warehouse
- Manual import/export data exchange system with the client's ERP of fixed format ASCII files.
- Advanced security management with restricted access to specific items and trays based on user's role

REMOTE ASSISTANCE VIA



The image displays three overlapping screenshots of the Modula WMS Base software interface. The top screenshot shows a 'Scoperti' (Inventory) table with columns for 'Articolo', 'Descrizione articolo', 'Quantità', 'Unità di misura', 'Data', 'Costo', 'Prezzo', 'Stato', 'Tipo articolo', 'Sottoprodotto articolo', 'Processo articolo', 'Tipo numero', 'Data/Ora ultima rilevazione', 'Data/Ora prima rilevazione', and 'Data/Ora ultima movimento'. The middle screenshot shows an 'Anagrafica Articoli' (Item Register) table with columns for 'Articolo', 'Descrizione', 'Unità di misura', 'Data', 'Area', 'Tipo', 'Tipo articolo', 'Processo', 'Quantità', 'Espresso', 'Sottoprodotto', 'Tipo', 'Data', 'Data rilevazione', and 'Costo'. The bottom screenshot shows a 'Uscite Modulo' (Tray Division) table with columns for 'Data', 'Cod. Usc.', 'Desc. Usc.', 'Desc. Art.', 'Data', 'Costo', 'Unità', 'Usc. Prod.', 'Tipo', 'Tipo Tronco', 'Prevalenza', 'M.C. Usc.', 'M. Comp.', 'Materie Usc.', 'Area Usc.', 'Area Deposito', 'Prevalenza Usc.', and 'Data Usc.'. A 'Gestione' dialog box is open over the bottom screenshot, showing a list of items and their associated operations. A red arrow points to the 'Gestione' dialog box with the text 'Item register management'. Another red arrow points to a grid of colored boxes at the bottom right of the interface with the text 'Management of compartment codes mapping with graphic view of tray division'.

Rewarded with a more complete package



MODULA WMS PREMIUM

The most complete package for warehouse management. All the functionalities of the BASE package, plus many others.

- Automatic item-compartment allocation and dynamic location management.
- Lot and serial number management.
- Full management with custom tracking of automatic import/export in ASCII, ODBC, Excel and Xml file formats.
- Management of free or tabled sub-codes.
- Material status management.
- Pack type management.
- Expiration date management.
- Advanced user management; configuration of enabled procedures for each individual user.
- Material management by FIFO or by sub-code priority (e.g. picking can be performed giving priority to the lowest and therefore the oldest lot code).
- Justification management for immediate requests.

STATISTICAL ANALYSIS and CUSTOM REPORTS.

- Full management of warehouse statistics.
- Customization of print reports via print management tool.
- Customization of printed label layout using dedicated tools.

REMOTE ASSISTANCE VIA



The screenshots display the following features:

- Anagrafica Utenti:** A user management screen with a table listing users and their roles.
- Ruolo:** A configuration window for defining user roles and their permissions.
- Definisci:** A configuration window for defining system parameters.
- Superficie occupata per macchina:** A bar chart showing the percentage of surface occupied by different machines.
- Jobs (Filter Active):** A detailed table of active jobs with columns for priority, description, repetitions, and scheduling.
- Jobs Event Log:** A log of events for the selected job.

← User register and role management

Statistics and report display

← Automatic data import/export

Supplementary packages for Modula WMS PREMIUM



Advanced picking

This module provides functionalities to improve picking and replenishing.

- Packing list management.
- Assembly kit management.
- Shipping bay management.
- Warehouse management of materials in transit (packages, cartons, boxes).
- Automatic creation of storage compartments during replenishing operations.
- Serial number management (management of multiple serial numbers for the same item associated with an individual compartment).



The advanced picking module is ideal for the management of bays, picking carts, and Put to Light.

Advanced item management

This module extends the functionalities for item management:

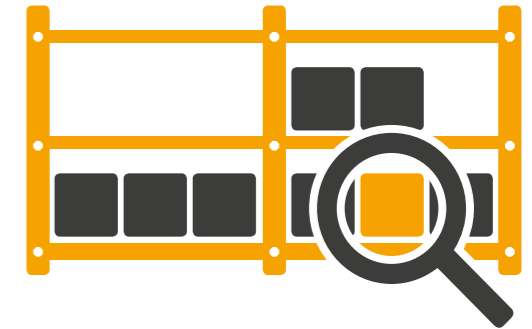
- Management of the pre-defined orders that can be replicated as required.
- Association of images to items.
- Grouping of items into families to define common characteristics.
- Grouping of items into categories for improved search and filtering capabilities.
- Extended fields for item management, orders and order lines via additional attributes.
- Management of alternative article codes.
- Management of borrowed material picking.



Manual warehouse

This module allows the management of manual areas by software with the following functionalities:

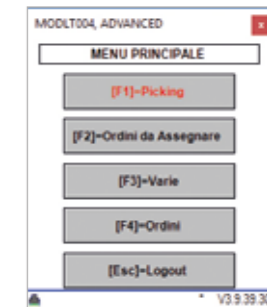
- Management of manual warehouses using an intuitive graphic tool.
- Management of picking activities in manual areas.
- Management of material splitting between different areas on the basis of the quantities handled.
- Management of material reintegration between areas on the basis of user-definable minimum stock levels for different areas.
- Entry area management.



Radio frequency terminals

This module can extend the functionality of manual warehouse management with the use of radio frequency terminals base on Windows CE for all warehouse operations.

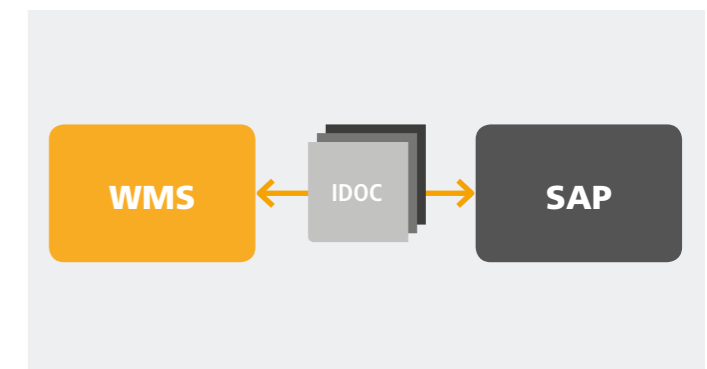
Modula does not supply terminals but recommends Motorola, Intermec, Denso.



IDOC: ad hoc SAP protocol

This refers to the exchange of data between SAP WMS and Modula WMS (in ASCII format) via IDOC assuming that SAP contains the WM module.

The Modula WMS must be seen by SAP as a black box to which the requests and results of the requests are sent via IDOC.



Does your company already have a WMS?

If you already have a WMS, you can choose between Modula Link and Modula Driver and we will connect to your WMS.

Modula Link or Driver: what are the differences?

	MODULA DRIVER	MODULA LINK
External control PC	Necessary	Necessary
Warehouse activity management	Via Modula console	Via external terminal (RF, PC or other)
Options management	Standard LED bar	
	Alphanumeric LED bar	Alphanumeric LED bar
	Laser pointer	Laser pointer
	Badge reader	Badge reader
	EKS system	EKS system
	Barcode reader	
	Label printer	
Put to Light		Put to Light
Communications	Via tables or text files	Via socket



MODULA DRIVER

Modula Driver allows high-level warehouse management by way of movement orders (pick, replenish or inventory). These orders are typically sent via an intermediate data base or text file: basically, lists of trays to be moved with the associated picking data.

Modula Driver does not manage item registries, stock and item storage locations (compartment), these being delegated to the company ERP, but it ensures that the HOST system knows the precise location of the items to be picked or replenished.

For each operation, the host sends the information pertaining to the tray (Loading Unit) to be moved, and the Driver simply transfers the data.

When the Driver receives the request from the ERP, the operator, from the Modula console, can view the orders that have arrived and decide which to execute.

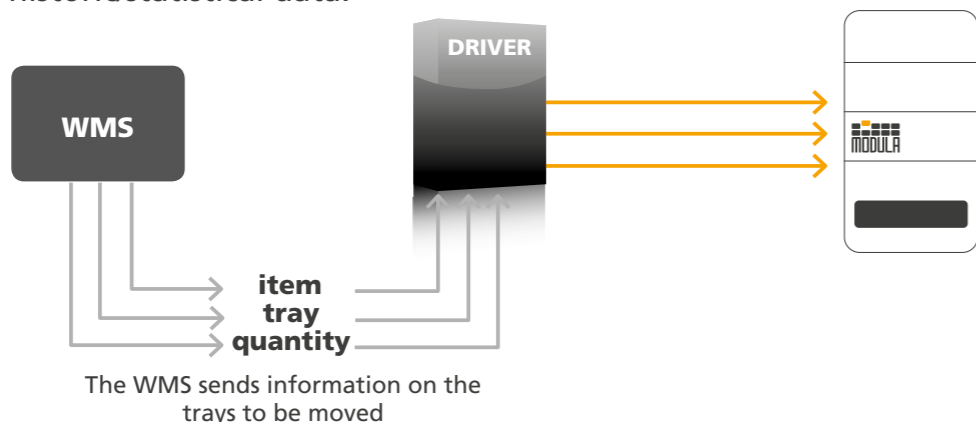
On the Modula console, in the picking page, the operator can view the data of each operation; once completed, operations must be confirmed immediately.

The operator can only vary the confirmed quantity if the need changes or if there is not a sufficient quantity of the material available.

Once the order is complete, Modula Driver can send the result of the movement to the ERP, which resumes control and proceeds with its own workflow.

This system can manage:

- Order preparation bays (with the possible addition of the Put to Light accessory).
- Warehouse historic/statistical data.



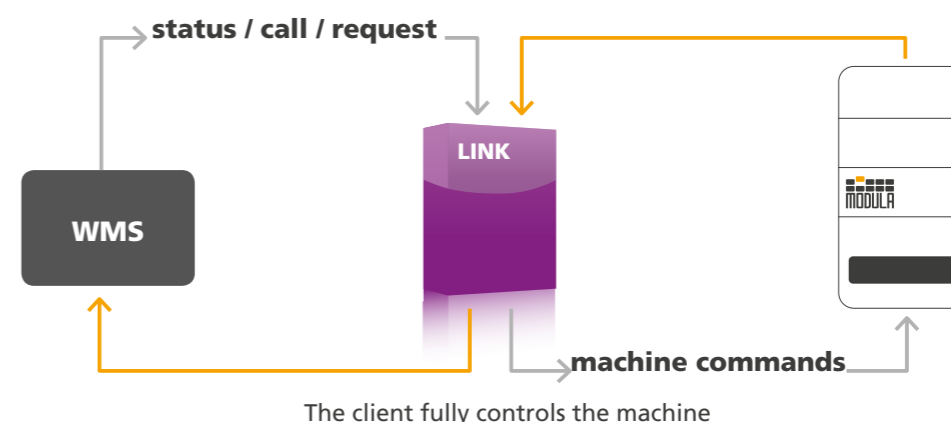
MODULA LINK

Modula Link is a software tool that enables an external Host System to control at low level a group of LIFT OS units using a set of commands managed via communication on a TCP/IP channel socket.

Modula LINK is the communications server: it opens a TCP port (configurable) and waits to receive commands; when it receives a valid command from the external Host System, it manages it and responds. Modula Link can be configured to manage commands from a single client (Mono-Client Communication) or from several clients (Multi-Client Communication).

When the ERP system needs to call a tray, it uses the appropriate command. As soon as the tray is ready in the bay, the ERP system is informed of the status of the Modula trays via the STATUS command. At the end of the operation, the ERP can issue the command to return the tray. Modula receives only one tray call request. The console shows the tray is ready, but does not provide the operator with any other information; it is the job of the ERP to inform the operator of the activities to carry out and ask for confirmation of the action.

Typically the picking tool used is an RF terminal, an external PC being less common. With precise, real-time control of the warehouse, there is a series of advanced logistic functionalities with which the ERP may be equipped.





MODULA WMS: ONE SOFTWARE, INFINITE POSSIBILITIES

SOFTWARE

Modula is present in 5 continents with dealers and branches located in over 30 countries.

MODULA STORAGE SOLUTIONS LIMITED

38 Craven Street
London - England - WC2N 5NG
Tel. 0044 0844 902 8945
info@modula.com
www.modula.com

www.modula.com

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