



>The All-In-One-ERP-System For Small And
Medium Sized Industrial Companies.//

>Functional Overview//

TimeLine-ERP covers all business processes for the administration of small and medium sized industrial companies. This includes not only production related modules like production planning, production data capture and logistics but also the areas of CRM, calculation, purchasing, tool-management and more.

Furthermore TimeLine includes functionality for quality management and control which becomes increasingly important for companies not only in the automotive sector.

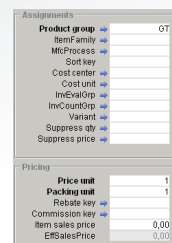
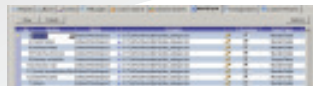
As a whole, TimeLine-ERP is probably one of the most functional All-In-One-ERP-System for small and medium sized companies.

Historically, TimeLine-ERP has been created in close cooperation with our customers and still continues to be improved with a strong focus on user requirements.

User-friendliness, fast accessibility of data, intuitive ergonomics and transparent menu structures are some of the most distinctive attributes of TimeLine-ERP.

Best-Of-Breed user interfaces include:

- ➔ Direct access to crosslinked data and modules in all screens
- 📁 Consistent keyboard operability
- 📁 Seamless integration into Microsoft-Office-Products (Word, Excel, Access, Outlook,...)
- 🔑 Accelerated full-text search options in all modules
- 📁 ...and more!



>Sales Documents And Pricing//

Easy and intuitive

- Documents can be altered at all times, items can be renumbered, inserted or moved

Wide variety of document types to choose from

- Purchase and sales contracts, order calls and orders, partial and collective deliveries, sample deliveries (free-of-charge), credit notes, pro-forma invoices, etc.

Flexible Pricing

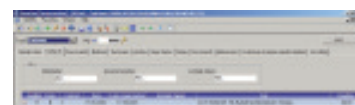
- Customer/supplier related prices, list prices in different currencies, quantity related prices, variable additional price components and surcharges (i.e. setup-cost surcharge, minimum quantity surcharges, etc.) on a percentage-, per piece- or per kg-basis, flexible rebate system

Price Alterations

- Automated price alterations with round option; option for subsequent price and weight alterations in existing orders

Accounts of proceeds

- Invoiced turnover can optionally be split variably onto different accounts (i.e. foundry, machining, external manufacturing, etc.)



>Customer Relationship Management (CRM) //

Integrated CRM-cycle

- Order calculation, quotations, call and contact management, follow-up - all business processes are fully integrated

Customer and prospect management

- Multiple addresses, multiple contacts per customer; extensive management of communications data (fax and phone numbers, mail addresses, etc.) per contact

Activity management

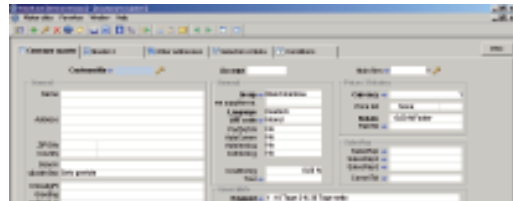
- Management of calls and contacts, workflow support for follow-ups of calls and quotations, prospect management

Integrated communications

- Integrated mail client and mail archive: send your mails directly from TimeLine-ERP
- Integrated PDF generation of all sales and purchase documents for direct email transmission or archiving purposes
- Mail archive per customer, supplier and prospect
- Serial emails, email campaigns

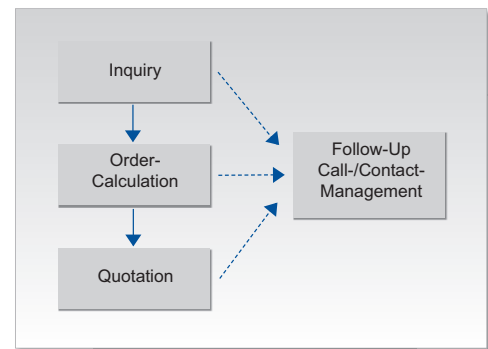
Integration into MS-Office

- Generation of quotations and other documents into MS-Word-documents via customizable templates
- Excel export option for all reports
- Access TimeLine data from Access or any other ODBC database, OLAP or reporting tool. TimeLine's open repository database is freely accessible for any user with sufficient rights.



Computer-aided telephony (CAT, TAPI)

- Incoming calls: TimeLine pops up the customer info screen automatically on any identified incoming phone call
- Outgoing calls: Call your business contacts by simply clicking on the phone number in the customer-info



Customer Information Module - comprehensive information at a glance

- Correspondence, outgoing email, contacts, notes, follow-ups, internal and external documents, addresses, pricing, historical data and statistics, accounts receivable, order-backlog, turnover and more...

>Document Management (DMS) //

Assign any file to almost any object in the ERP-system:

Supported file formats

- Excel, Word, Access, photos (tif, jpg, etc.), drawings - any file type that is supported by the software installed on your system can be linked to an object in the ERP-system.

Supported objects in TimeLine

- Customer, supplier, prospect, item, tool/mould, sales and purchase documents (quotation, inquiry, order confirmation, ...), production documents, etc.



>Supply-Chain-Management/ Purchasing//

Flexible disposition with variable purchase order types

- Purchase contract
- Purchase order
- Purchase order call
- Material requirement requests for production accessories, auxiliary material and spares

Automated purchase procedures

- Workflow based compliance check of delivery dates
- Dunning procedures for unreturned price inquiries, unconfirmed purchase orders and delivery arrears.

Integration of various demand types in a single supply-chain management system

- Material requirement request
- Direct demands from customer or production orders
- Demands for external contract manufacturing
- Automated purchase proposals (MRP-run)
- Longterm product range demand planning

Efficient Ergonomics

- Direct crosslinks to master data modules from order processing and other forms
- Easy cancellation or modification of orders and transactions at any time
- Any business transaction can be processed from within a single form without the necessity to branch into other modules

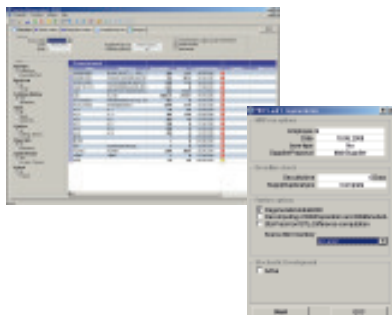
Flexible Price-Management

- Procurement directory
- Supplier related prices, quantity and rebate scales, variable additional price components and surcharges (i.e. setup cost surcharge, minimum quantity surcharges, etc.) on a percentage, per piece or per kg basis, flexible rebate system
- Automated price adjustment procedures

>Materials Management//

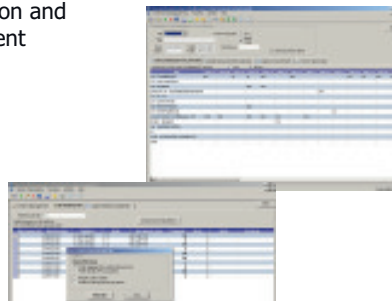
Multi-warehouse management, management of storage locations

- Management of multiple warehouses (i.e. works, locations, etc.)
- Management of multiple storage locations
- Rejected parts storage
- Storage management for external contract manufacturers
- Storage management for consignment warehouses



Material requirements planning

- Batchsize optimized purchase and production proposals with consideration of deficiency probability and item and supplier related lead times
- Optimization of supplier-proposals according to fastest supplier, most favourable price or main supplier
- Automatic contract recognition and assignment



Batch-management/ serial-number management

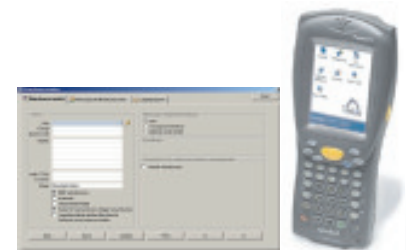
- Batch-management accross multi-warehouses and multi-storage-locations
- Batch retracement (back to the supplier)
- FIFO proposals on preparation of consignments

FIFO

Inventory

- Permanent inventory, yearly inventory
- Optional blocking of warehouse transactions while inventory is in progress
- Evaluation of stocks and half-finished products, automated devaluation of stocks

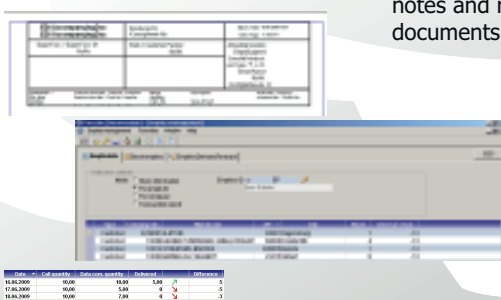
Inventory-management with handheld-PDAs/ scanners



>Logistics//

Empties Management (pallets, lattice-boxes, etc.)

- Flexible empties management with automated stock bookings on creation of delivery notes
- Customer-specific packing instructions (typical for the automotive industry)
- Multi-stage-packing materials (pallets with plastic boxes, etc.)
- Empties requirements planning



Commissioning

- Commissioning proposals (with FIFO option for batches) based on order priorities and delivery dates
- Automated delivery note generation from commissioning proposals
- One-step generation of delivery note, empties bookings, electronic transport declaration and logistics documents
- Creation of package labels, consignment notes and related documents

EDI Modules

- EDI/DC - modules for Ansi X12, Odette, VDA and Edifact formats
- All common message types are preconfigured without necessity for customization (format mappings have to be individually created using the format converter)



Available message types

- Inbound delivery forecast, order call, fine order call (delfor, deljit, VDA4905, VDA4915)
- Outbound delivery note (delnote, VDA 4913)
- Outbound invoice (invoic, VDA 4906)
- Inbound credit advice (creadv, VDA 4909)
- Pick-up sheet (DELJITPUS)
- Etc.

Customs-documents

- Creation of EUR.1, ATR and export declarations (certain documents may vary for non-EU countries and may need customization)



>Production Orders And Planned Production Orders//

The Production Order is the central document within the production module of TimeLine-ERP. Its main elements are routing plan and parts list.

Creation of Production orders

- Production orders can be created manually, via transfer from a customer order or via release of a production proposal.

Released	Released	Blocked	Scrap	Cancellation	Logtime	Actions	Remaining Prod. quantity
0	0	0	0	123	0,00	0,00	0,00
0	0	0	0	0	115,00	0,00	115,00
0	0	0	0	0	268,00	0,00	268,00
0	0	0	0	0	480,00	0,00	480,00
0	0	0	0	0	0,00	0,00	0,00
				123	1.407,00	0,00	1.407,00

Planned production orders: more freedom to plan

- Planned production orders allow the reservation of capacity and material without actually releasing a production order for production. At this stage alterations like split, deferral, re-schedule and merge are possible without significant restrictions.

Release for production

- Planned production orders can be converted to released production orders at the push of a button.

Production documents

- Easy and efficient printing of routing plans, production orders, parts lists. Report design is free and can be done using PowerBuilder, Crystal Reports or any other ODBC-enabled reporting tool.

Circulation of items in production

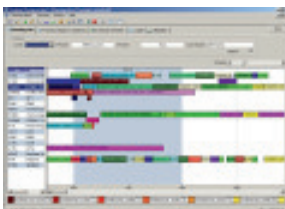
- Items in production are managed like stocks. Each production data feedback carries forward the production quantities within the routing-plan. A distinction is drawn between good parts, blocked parts and rejects.

Operating sheet		ItemNbr : 100	
From ProdOrd Nbr : 895		Description : Cylinder Head	
Kunde Nr. : 0		Date : 10.06.2009	
		DeliveryDate : 10.06.2009	
		ehouse nbr: 10001	
		Qty : 150,00	
RoutingNbr: 5			
OperType: 050			
OperType: Cores shoot			
Long text :			
Piece : <input type="text"/>			
checked by: <input type="text"/>			
Resources			
ID	SeqNbr	Description	Qty
K10	1	Core 10 Ltr	1

>Planning and Scheduling//

TimeLine features four graphical planning boards which integrate fully into the materials management and sales modules. Thus, TimeLine represents one of the most comprehensive planning tools for foundries in the market.

TimeLine offers unparalleled ease of use, effectiveness and precision of production planning:



Planning board II offers efficient automated computation of delivery dates for open customer orders based on finite capacity, parallel resource usage (mould & machine) and material availability. Short term capacity adjustments, change of order priorities, resource breakdowns and consideration of recent production data feedback will keep planning up-to-date and in sync with factory floor reality.

It is strongly recommended to use Planning board II in combination with TimeLine-production data acquisition modules to keep information up-to-date on realtime basis.

Reliable delivery date ascertainment

- Finite capacity planning considers current capacity load and material availability when computing new delivery dates
- Production data automatically feeds back into planning
- „Update“ function allows to recalculate all completion dates based on fresh data



Planning board III allows for quick and efficient fine planning of the order sequence on individual machines and production resources. Planning is as easy as dropping an order onto a machine at the desired production date. PB3 has been designed for quick implementation and maximum ease-of-use.

Fully integrated

- Transfer customer orders directly into the inbox of the planning board
- Drag & drop customer orders directly onto the machine at the desired date
- Automated feedback of planned dates to the sales department

Quickly implemented

- Define resources,
- Create routing plans for your items,
- Enter your customer orders, ...
- ...and start to plan!

Powerful, comprehensive and efficient planning tools

- Split, merge, defer, move (backward/forward), set order priorities, adjust capacity, assign to external contractor, swap resources/machines, simulate on a separate planning level - there is virtually no limit as to what you can do in the planning modules.
- Forward and backward planning, lead time and manual scheduling
- Machine order sequence planning via drag & drop
- Comparison before-after, pending delays, delivery date diagram, capacity load diagram

>Contract Manufacturing, External Manufacturing//

Integrated workflow within purchasing and production

- Comprehensive business flow from inquiry to dunning and invoicing of contract manufacturers
- Define external operations simply by specifying an external resource in the routing item
- Create external routing bills directly from the production order module or combine several items from different production orders onto a single external routing bill
- Quick and efficient feedback process for goods returning from external manufacturing

Securing deliveries and schedules

- Automated creation of production previews allows more precise planning on the side of your contract manufacturers
- Planning modules will automatically compute dispatch and return dates for external routing bills
- Automated dunning system for delayed returns from external manufacturing

Pricing effectively managed

- Supplier and item related prices and quantity scales for every external operation
- Separate management for setup costs or other surcharges (freight, etc.)
- Prices on per piece, per kg or per hour basis

Max. Standardpreis
Lieferung 200

4000 Item

Accompanying Document

Document	Date	Document No.	Document Date	Company No.
11	12.12.2003	70000		

We issue for processing the following item:
Item for Processing

City: Datteln/Date: 20/ProdOrder:

10 Warenübergang 4101070 (Vorratsträger Typ 1) 1.000,00

20 Bearbeitung Vorratsträger Typ 1 84000 AF 040

Material flow released parts

Material	Plant	Quantity	Unit of Measure	Description	Qty/Released	Transfer	Storage	Process	Cost Center
W010	100	100	1	Zubehörsatz (Einzelstück)	12,00	0	0	0	
W011	100	100	1	Vorratsträger Typ 1	1,00	0	0	0	
W015	100	100	1	Zubehörsatz	400,00	0	0	0	
					0,00				
					0,00				
					0,00				

Item	Plant	Quantity	Unit of Measure	Description	Qty/Released	Transfer	Storage	Process	Cost Center
006	100	100	1	Zubehörsatz	12,00	0	0	0	
008	100	100	1	Vorratsträger Typ 1	1,00	0	0	0	
010	100	100	1	Zubehörsatz	400,00	0	0	0	
012	100	100	1	Zubehörsatz	12,00	0	0	0	
014	100	100	1	Vorratsträger Typ 1	1,00	0	0	0	
016	100	100	1	Zubehörsatz	400,00	0	0	0	
018	100	100	1	Zubehörsatz	12,00	0	0	0	
020	100	100	1	Vorratsträger Typ 1	1,00	0	0	0	
022	100	100	1	Zubehörsatz	400,00	0	0	0	
024	100	100	1	Zubehörsatz	12,00	0	0	0	
026	100	100	1	Vorratsträger Typ 1	1,00	0	0	0	
028	100	100	1	Zubehörsatz	400,00	0	0	0	
030	100	100	1	Zubehörsatz	12,00	0	0	0	
032	100	100	1	Vorratsträger Typ 1	1,00	0	0	0	
034	100	100	1	Zubehörsatz	400,00	0	0	0	
036	100	100	1	Zubehörsatz	12,00	0	0	0	
038	100	100	1	Vorratsträger Typ 1	1,00	0	0	0	
040	100	100	1	Zubehörsatz	400,00	0	0	0	
042	100	100	1	Zubehörsatz	12,00	0	0	0	
044	100	100	1	Vorratsträger Typ 1	1,00	0	0	0	
046	100	100	1	Zubehörsatz	400,00	0	0	0	
048	100	100	1	Zubehörsatz	12,00	0	0	0	
050	100	100	1	Vorratsträger Typ 1	1,00	0	0	0	
052	100	100	1	Zubehörsatz	400,00	0	0	0	
054	100	100	1	Zubehörsatz	12,00	0	0	0	
056	100	100	1	Vorratsträger Typ 1	1,00	0	0	0	
058	100	100	1	Zubehörsatz	400,00	0	0	0	
060	100	100	1	Zubehörsatz	12,00	0	0	0	
062	100	100	1	Vorratsträger Typ 1	1,00	0	0	0	
064	100	100	1	Zubehörsatz	400,00	0	0	0	
066	100	100	1	Zubehörsatz	12,00	0	0	0	
068	100	100	1	Vorratsträger Typ 1	1,00	0	0	0	
070	100	100	1	Zubehörsatz	400,00	0	0	0	
072	100	100	1	Zubehörsatz	12,00	0	0	0	
074	100	100	1	Vorratsträger Typ 1	1,00	0	0	0	
076	100	100	1	Zubehörsatz	400,00	0	0	0	
078	100	100	1	Zubehörsatz	12,00	0	0	0	
080	100	100	1	Vorratsträger Typ 1	1,00	0	0	0	
082	100	100	1	Zubehörsatz	400,00	0	0	0	
084	100	100	1	Zubehörsatz	12,00	0	0	0	
086	100	100	1	Vorratsträger Typ 1	1,00	0	0	0	
088	100	100	1	Zubehörsatz	400,00	0	0	0	
090	100	100	1	Zubehörsatz	12,00	0	0	0	
092	100	100	1	Vorratsträger Typ 1	1,00	0	0	0	
094	100	100	1	Zubehörsatz	400,00	0	0	0	
096	100	100	1	Zubehörsatz	12,00	0	0	0	
098	100	100	1	Vorratsträger Typ 1	1,00	0	0	0	
100	100	100	1	Zubehörsatz	400,00	0	0	0	

>Project Management For Engineering Companies//

Information at a glance: TimeLine project-explorer:

Internal documents

- All documents are shown in a tree view structure

Milestones

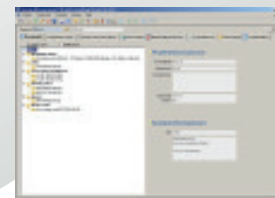
- Budgets, deadlines, estimated hours of production: everything you need to manage the lifecycle of a project

External documents

- Assign all kinds of files and documents to your project

Invoice processing

- Advance payment invoices, closing invoice/ account settlement



>Quality Management//

Gauges and test equipment

- Gauge status, serial number, storage location and other information
- Monitoring, calibration and maintenance
- Blocking and release
- Gauge history
- Gauge issues, trackings and returns

Quality order monitoring

- Quality order monitor shows all open quality orders with a direct crosslink to enter quality data (Version 11)

Inspection orders for

- Inbound deliveries (Version 11)
- Factory operations
- Factory turnout
- Definition of item-specific control plans
- Automated generation of inspection orders

Supplier assessment

- Rating for delivery reliability, customer care, product quality, pricing, etc.
- ABC rating for suppliers

Control plans: integrated quality control

- Definition of quality attributes
- Control plan management with definition of item and attribute-specific tolerance limits
- Automated generation of quality and inspection orders

Data logging of quality and measurement data

- Data logging of SPC measurement data
- Creation of measurement reports (Version 11)

Claims management

- Activity monitoring
- 8D-reports
- Failure cost ascertainment
- Workflow-support
- Dunning system for delayed recovery activities

Management of rejects and rework

- Stock management of rejects and reworks
- Rejects statistics
- Failure cost statistics



>Production Data Feedback: Simple And Efficient//

PDF-types

- Single or collective bookings; operations and material consumption bookings; bookings can be entered via PC or via TimeLine production or machine data capture systems

Product costing analysis

- Feedback data on factory operations can be used for product costing analysis based on actual costs

Casting batch management

- Assignment of casting batch number to customer / production order on entering moulding department feedback data

Production statistics

- Various statistics on quantities and tonnage; defective part statistics, etc.

Incentive wages

- Piece rate and premium wage management; wage related data can be entered together with operations feedback in a single step

>Rework, Quarantine Storage And Rejects//

Rejects and rework

- Rejects and rework can be separately booked alongside with approved parts/quantities

Statistics on cause of defects

- Management of cause of defects and statistics on defective parts

Rework orders

- Rework production orders allow for comprehensive management and data capture of costs for rework operations; additional textfields in feedback bookings allow for statements and comments on rework.

>Production And Machine Data Capture//

Intelligent terminals - flexible software

- TimeLine-PDC is based on industrial PC technology with IP65-Standard or standard commercial PC hardware
- Online bookings for maximum up-to-dateness of data



Flexibility of configuration

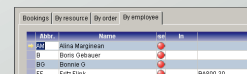
- User-configurable booking types: Using the Booking configuration editor you can define which data shall be captured during PDC bookings.
- Any custom booking type can be assigned to any function key on the terminal screen.

Pre-configured booking types for a wide variety of business cases

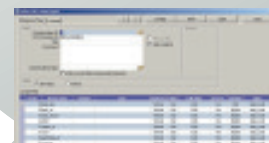
- Clocking on/off
- Come, go
- Order complete booking
- Info
- Material consumption booking
- Rework
- Project feedback (no production order required; you can book directly onto the project)
- Overhead cost booking
- Collective booking
- Service booking
- Breakdown/disturbance/interruption
- Change of order
- Quantity report

Integrated machine data capture

- Direct interface for quantity data capture and production operations turnout
- Ressource monitor shows number of casting/production cycles, remaining production time, disturbances and downtime



Bookings	Resource	Order	Resource
1	Alma Margheim	1	1
2	Born Oetwiler	2	2
3	Born Oetwiler	3	3
4	Fritz Fink	4	4



Bookings	Resource	Order	Resource
1	Alma Margheim	1	1
2	Born Oetwiler	2	2
3	Born Oetwiler	3	3
4	Fritz Fink	4	4

Consistent management of tools and tool components

- Tools can be assigned to production operations just like machines or personnel.

- With every production operation, counters for durability and maintenance are automatically updated

- Separate management for die-casts, moulds, models, core boxes, lores, gauges and other tools

- Blocking/release and suspension, tool amortization, management of technical data for moulds, assignment of external documents like drawings, fotos, etc.; management of tool components, tool-related costs and revenues, maintenance history

- Accelerated tool shop order generation for repairs, conversion and retrofitting.; automated recording of tool shop costs

- Inbound and outbound delivery notes for transportation and relocation of tools and moulds.; cost recording of external tool shop costs

- Amortization accounts to log tool-related revenues during the tool lifecycle

Technical data	
	Altay
Module/blade	Formanite
Mouldband	
Flask/formal exchange	
Flask height	600,00 mm
Kiss height	1.000,00 mm
Flask width	1.000,00 mm
Flask air	800,000 L/s
• CxVel	18,000 L/s
• Burn CxVel	8,000 L/s
• CxVel	123,00 L/s
• Sand/Fl	450,000 kg
Employee/working	1
Cool time	7 Hrs
Cement time	50
Flask/cycle	[1/10]
Circulation weight	165,60 kg
Breath weight	165,60 kg
Sand loss factor	0,00
Lapement	10 cm
Operator	kg

Reporting

- Create your own reports using any OLAP or ODBC tool. Standard reports are delivered in source code for easy modification.

- Screen editor to disable, relabel or add fields

- Fast, reliable and maintenance-free SQL-database with 100 % ODBC/OleDB-compliance

- TimeLine ERP is based on a comprehensive and powerful framework of business-objects that can be individually modified using OO-technology

TimeLine ERP can be customized without losing release-capability!

>System Checklists//

Other additional modules

CRM and materials management modules: Order calls (automotive), CRM, MS-Word interface, random storage management, batch management, electronic data interchange (EDI), financial accounting interface, document management, inventory, empties management, multi-warehouse management, open items management, item classification, serial number management, dispatch and transport logistics, sales agents management, sales forecast, customs documents management

Production modules

- External manufacturing, project management, production planning and scheduling, tool management

Quality management modules

- Supplier rating/assessment, control plan management, gauge management, claims management

System modules

- Foreign language interface, MIS-toolkit, TimeLine-to-TimeLine-link, archiving interface (ELO, Easy)

Data capture modules

- Mobile data capture (PDA), production data capture, machine data capture

User rights management

- Flexible definition of access rights and restrictions based on screen, tab or modules; separate access rights for visualization of purchase and sales prices, etc.

Menus

- Menu Editor for custom configuration of menus, user defined menus, custom menu items/modules

Utilities and tools

- Search and elimination of duplicate customers, items, etc., SQL-makro editor, import and export of data, subsequent modification of primary keys for items, customers, etc.

Application-Server

- Application server for batch processes and night operations like recomputation of planning data, MRP-run, generation of workflows, follow-ups, etc.

Multi client/ multi works

- Management of several companies, locations or works in either one database or separate databases; inter-company clearing (Version 11)

Multi-language reporting

- All sales and purchase documents are multilingual

>Interfaces and operating systems//

Operating systems (server)

- Linux, MS-Windows

System interfaces

- MAPI, TAPI
- ODBC, SQL

Financial accounting interfaces

- Interfaces to virtually any financial accounting system can be customized with an effort of approximately 5 programming days

Integration to MS-Office

- Word, Excel, Access, Outlook

Archiving interfaces

- ELO, Easy-Archive

Interfaces for quality management systems

- Böhme & Weihs, BABTEC

EDI - Formats

- UN-EDIFACT, ANSI X12, Odette, VDA

Document types

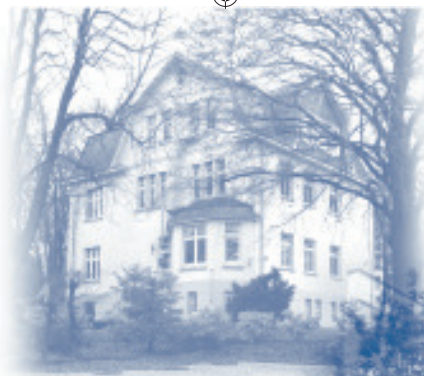
- Order call, fine order call, delivery note, invoice, credit advice

Features

- Integrated format converter; direct storage of EDI-data inside the ERP-database

Terminal-Server

- Citrix and Windows Terminalserver enabled



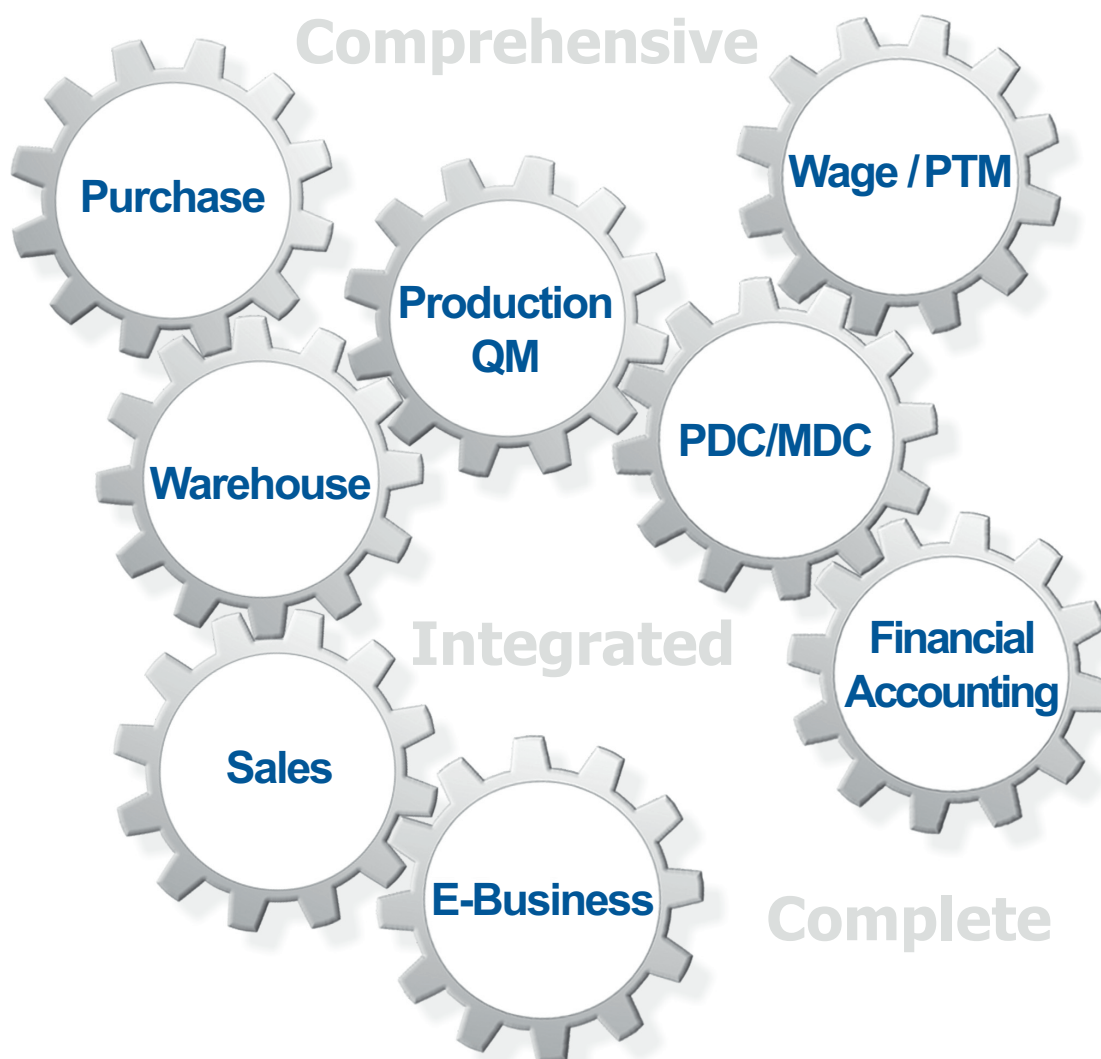
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