

## TimeLine Plastics THE ERP SYSTEM FOR THE PLASTICS INDUSTRY MORE EFFICIENT PROCESSES ACROSS ALL DEPARTMENTAL BOUNDARIES



timeline-erp.de

## HIGH-END TECHNOLOGIES AND FEATURES BECOME ACCESSIBLE TO EVERYONE.

The TimeLine Group is an independent software and consulting company, with more than 30 years of experience as a competent and reliable partner for manufacturing companies. Our goal is to significantly accelerate and streamline the processes throughout departments within one cohesive solution. With it's broad functional range, TimeLine ERP is the most comprehensive ERP ecosystem for industrial manufacturing companies.



## **TIMELINE PLASTICS**

TimeLine ERP offers plastic processing companies a unique foundation with a broad base of standard modules combined with industry-specific functionalities. Complemented by an unprecedented customizability to individual requirements it forms a tailored solution for any scenario. The new TimeLine platform integrates the ERP and PPS components with revision-proof document management, its own development application, and the central Time-Line communication server into a highly integrated and unparalleled versatile solution.

## MULTIPLE AWARD-WINNING INDUSTRY SOLUTION

An industry-specific focus can only be achieved in cooperation with the relevant users, which is why our development has been carried out in close cooperation with customers from the plastics processing industry. In the standard, this results in a range of functions that is characterized by the special challenges of the plastics industry.

#### CALCULATION

Pre-calculation of virtual and existing items, volumebased calculations, contribution margin and profit calculation, surcharge calculations, and the transformation of pre-calculations into sales offers without item numbers.

#### **QUALITY MANAGEMENT**

Inspection plans, production-related and incoming goods inspections, management and capability analysis of test equipment, integration of test equipment, creation of control charts and certificates, inspection monitor, as well as manual or BDE terminal input of measured values.

#### PRODUCTION

Management of production orders, Entry of production feedback either manually or via BDE terminal input, management of technical drawings, production monitor as a central control center for the manufacturing process, simultaneous post-calculation within production orders as well as coupled production orders.

#### **PLANNING**

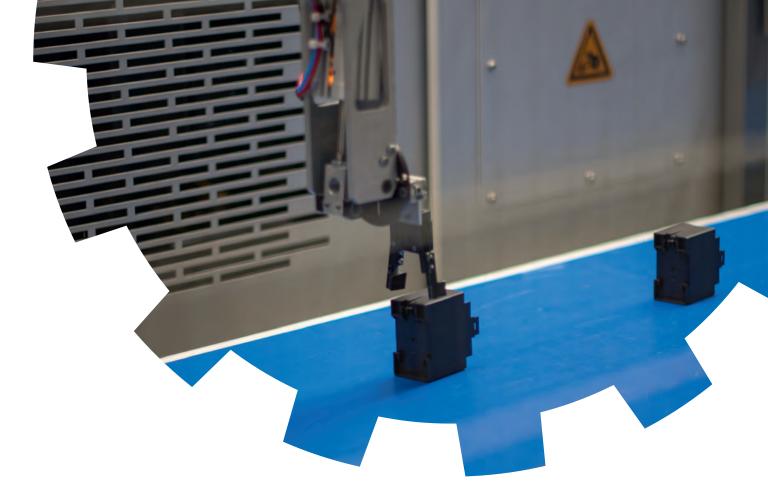
Graphically displayed automatic- and fine planning, separation into planning groups, various planning levels to divide simulation levels for different capacity variants, automated planning via the integrated APS run, as well as ATP determination (available to promise).

#### **TOOL MANAGEMENT**

Management of single and multiple tools including tool life, blocking status and documents. Incoming and outgoing delivery notes for external toolmaking as well as toolmaking orders with cost collection.

#### **DISPATCH HANDLING**

Customer-related and general packaging regulations, single and multi-level packaging, VDA-compliant labels (VDA goods tags, consignment note, EDI goods receipt/issue slip, etc.), interfaces to the web services of UPS, DPD and DHL.









#### **ERP-System des Jahres**

2020

Sieger in der Kategorie Automotive ERP

TimeLine Business Solutions Gro

Center for Enterprise Researc

## TIMELINE SIMPLY OFFERS MORE

Thanks to its wide array of features, TimeLine ERP is probably the best integrated ERP solution for medium-sized companies. The counter design to the best of breed idea, which is not only difficult to manage, but also immensely cost intensive. One coherent ERP ecosystem instead of a variety of isolated stand-alone solutions.



#### ENTERPRISE RESOURCE PLANNING

TimeLine offers a fully integrated and coherent erp ecosystem, covering all requirements of manufacturing companies, tailored to specific needs of the customers.

#### DATA CAPTURING

TimeLine ERP combines labor time recording as well as production and machine data capturing in one single solution without any interfaces.

#### FINANCIAL ACCOUNTING

TimeLine ERP integrates a certified financial accounting. Export options for Lexware or DATEV are also available on request. Local foreign third party solutions can be connected individually.

#### QUALITY MANAGEMENT

TimeLine ERP is one of the few ERP systems that integrates all relevant quality management aspects. This includes the management of testing equipment, inspection plans, complaints manegement as well as defect collection sheets and blocking cards.

#### CUSTOMER RELATIONSHIP MANAGEMENT

TimeLine ERP offers a comprehensive CRM system. Always keep track of business partners and the associated documents and activities.

#### DOCUMENTS, E-MAILS AND CALENDARS

TimeLine ERP combines all essential office tasks in one place. Appointments, documents and tasks are where they are needed - in the ERP system.

#### **BUSINESS INTELLIGENCE**

With the build in scorecard designer, all relevant key performance indicators can be monitored at all times. Pivots, spreadsheets, lists and evaluations can be individualized and displayed as needed.

#### **BRANCHE SPECIFIC FEATURES**

The dedicated TimeLine ERP branche packages serve the core requirements of highly specialized industry branches for over 30 years.

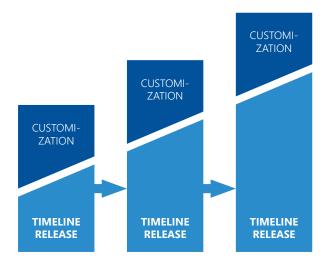
## TAILORED TO YOUR NEEDS

With TimeLine ERP, customizing becomes your decisive competitive advantage! The unique combination of ERP platform and integrated development system creates the possibility to close functional gaps with minimal effort. The build in migration tool secures the release capability for future versions.

#### **OUR TIMELINE ERP PROMISE**

### Personal support

Fixed contact persons and cwonsultants who accompany you for years and a service hotline consisting of experienced project managers ensure optimal personal support.



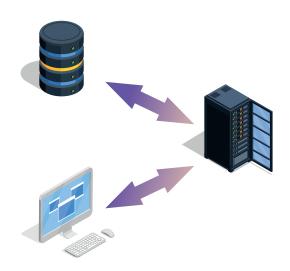
### Modular and flexible

The modular structure of TimeLine ERP gives you the freedom to add features at any time as your requirements grow.

## Individual

Customizations to the ERP system can be handled much faster than with comparable systems thanks to our own development platform and the integrated migration tools. In addition, adjustments are always made while maintaining release capability.





### Independent

Whether you are working from home, in the office or on site at client/supplier premises: The three-tier architecture with the TimeLine server as an intelligent middleware ensures that you can work securely and encrypted on your TimeLine database from anywhere - without the need for additional tools such as a VPN tunnel or a terminal server. In addition, the TimeLine server manages your external access, Multi-Tenants, as well as your licenses and server-side services. You remain flexible and location-independent in the long term.

#### IN THE CLOUD OR ON-PREMISE

For us, data sovereignty starts with the question of location. You can host TimeLine ERP either on-premise or in the cloud. You determine your IT infrastructure.



## ENTERPRISE RESOURCE PLANNING

Keep track of every stock movements all the time.

With TimeLine ERP, you control all processes relating to your stock movements in your warehouses. From procurement and reservations to production and delivery, you always have a comprehensive overview. Batch and serial number-managed items such as raw materials and supplies, finished goods and merchandise can be easily managed.



# Determination of requirements including order and production proposals

#### MATERIAL REQUIREMENTS PLANNING (MRP)

MRP run generates production and order proposals that are accurate in terms of quantities and deadlines on the basis of inventories, lead times and scrap quantities, taking into account existing demands. Cause references enable spontaneous quantity or date deviations to be taken into account across all levels. Production proposals generated by the MRP run can be directly transferred into planning production orders by the automatic planning run, which are then scheduled according to priority and delivery date.

### Stock and inventory management

#### MULTI-WAREHOUSE AND CHAOTIC WAREHOUSE

Keeping track of all raw materials, semi-finished products and finished parts is not always easy. TimeLine ERP helps you to manage any number of internal and external warehouses, with or without fixed storage locations. The administration of consignment warehouses, blocked stock storage and external warehouses is one of the core features of our warehouse management feature.

#### Highlights

- Plant-specific warehouses to administrate various locations
- Information on external inventories
- Key date and permanent inventory
- Stock evaluation according to FIFO concept
- Picking suggestions according to FIFO
- Platform independent booking masks for mobile scanners



### Traceablitly

#### **BATCH AND SERIAL NUMBERS**

In order to identify individual products or production lots at any time, serial or batch numbers can be used. For each serial or batch number, additional information can be added, such as best-before dates, status, or life cycle.

This also includes the possibility of storing documents such as drawings, factory certificates or test reports. The combination of life cycle and warehouse records as well as the usage list ensures complete traceability that even meets the highest requirements in the automotive, medical or aerospace sectors.

### **Container management**

#### CONTAINER MANAGEMENT

TimeLine ERP provides the functionality to manage warehouse containers as well as dispatch containers. These containers will be identifiable by a distinct identification number which will als simplify the booking routine. In addition tot hat container-specific bookings can be configured. Bookings can be done on mobile scanners or touch terminals.

#### Charge/SerienNr. editieren

Stammdaten Lagerbestande Journal Teileverwendung Lebenslauf Messwerte Dokumente

	Lfdnr	Тур	BuchArt	Kurztext	Langtext	Datum	Mitarb	Menge
	12432	Sonstiges 👻	QS Überprüfung	Überprüfung nach Fertigmeldung	Teile wurden geprüft! Ggf. muss eine Nacharbeit für 2	08.07.2022	DBA	25,00
	12433	Sonstiges 🔻	Sperrgrund	lunker	In dieser Charge wurde Lunker festgestellt. Hinweis a	27.08.2022	DBA	25,00
٩ 🛛								•

Position				Eingaben		
Buchungsart	•	QS Überprüfung	-	Datum	08.07.2022	
Kurztext		Überprüfung nach Fertigmeldung		Mitarbeiter	TimeLine Datenbankadministrator	
Text		Teile wurden geprüft! Ggf. muss eine Nacharbeit für 25 Teile dieser Charge		Menge		25,00
		erfolgen. Sie Nacharbeitsauftrag		Kosten		
				Erlös		

## Logistics

#### DISPATCH HANDLING

TimeLine ERP generates dispatch proposals based on order- and call-off positions, which are provided with a stock allocation according to the FIFO principle.

Customer-specific packaging requirements, lead times and working day matrices are taken into account.





#### Verpackung/Leergut x

#### Packmittel/Leergut Navigator

#### Verpackungsangaben

#### ID 27728 F32796 Flansch Bezeichnung Gebinde Art Verpackung Gebinde

#### Anbruchgebinde Teil-Lagen

Anz. Ladungsträger / Lage

#### Teil-Lagen erlauben ) nur volle Lagen

#### nur volle Gebinde

Hinweis: bei vollen Lagen/Gebinde wird das Gebinde mit leeren Ladungsträgern aufgefüllt!

#### Packmittel-Gebinde GP Zuordnung

/		
	Highlights	

- Label printing (e.g. VDA goods tags)
- EDI delivery note transmission .
- Single and multi-level packaging .
- Interfaces to UPS, DPD and DHL web services .
- Loading Lists .
- Pick and pack process •
- customizable mobile scanner solution for the pick process

	Dimensionen		
L.	Länge [mm]	1	1.200,00
	Breite [mm]		800,00
	Höhe [mm]	1	1.000,00
	Buchungskonto		
	Buchgs.Kto.	Spediteur	-

Lfdnr Typ Verpackung Bezeichnung Anzahl Anz.Max. Buchgs.Kto. GP Nr Anz. Label Label 1 Master 27503 BOJIH PAL1207 1,00 1,00 Spediteur -VDA Master 2 Packmittel 27505 BOJIH ABD1208 1,00 1,00 0 . 3 Ladungsträger ъ 27507 BOJIH KLT6421 16,00 16,00 GP **VDA Single** 2 4 Packmittel BOJIH GEF152 16,00 Þ 27510 16,00 0 5 Packmittel - b 27511 BOJIH DK064 16,00 16,00 0



## A COMPREHENSIVE PPS SYSTEM FOR EFFICIENT MANUFACTURING

Planning is the heart of any industrial manufacturing company - and the weak spot of most ERP systems. Where other systems exhaust themselves, the functional diversity of TimeLine ERP's production module starts to shine.



### Material Requirements Planning

#### ADVANCED PLANNING AND SCHEDULING

With TimeLine ERP you can ensure optimal material availability and procurement. Future material requirements are determined and covered according to quantities and deadlines. This will help you optimize inventory levels, keep track of material movements and meet delivery deadlines.

The automatic planning run is the central tool for production planning. Daily changing requirements regularly pose a problem for planning. Thanks to the APS run, even short-term changes are taken into account and scheduled overnight.

#### AVAILABLE-TO-PROMISE

Statements about the ability to deliver are often difficult to make in turbulent times. An upstream determination of deadlines on the basis of the current planning capacity is suitable for this purpose.

Replenishment times of raw materials, lead times of suppliers and customers as well as the current capacity utilization are taken into account.

#### APS-RUN

#### Step 1: Import via EDI

Import of recently updated order call quantities and order call dates via EDI-Interface

#### Step 2: Deleting planning production orders

Cancellation of every planning production order, which hasn't been fixated yet.

#### Step 3: MPR-run

Recalculation of all primary and secondary requirements based on the new call-offs and generation of production proposals with target dates.

#### Step 4: Generate planned production orders

Conversion of the production proposals into new planned production orders.

#### Step 5: Redesign

Planned production orders are scheduled backwards starting from the delivery date. Alternative ressources are taken into account during the automated planning

## ELECTRONIC DATA EXCHANGE

With our integrated EDI module for electronic data exchange, you can exchange documents between you and your customers and suppliers automatically. This standardized way of data transfer saves time and avoids incorrect entries.



### **EDI formats**

#### **EDIT DOCUMENTS**

Imported shipments can be viewed, edited and released for further processing. The editor displays every component of the shipment just as it will be processed in TimeLine ERP later on.

#### **EDI-FILE-VIEWER**

The integrated EDI file viewer makes EDI messages easier to read and more understandable. You can upload an EDI message and display it segment by segment with the corresponding values for every data element.

STANDARD SUPPORT
VDA
Global EDIFACT according to GS1 or VDA
EDIFACT all Directories
Flatfile
SAP IDOC
XML
CSV
Echtes ANY-TO-ANY Mapping on Databanks
Intern. Standard Mappings z.B. EDI -> VDA oder VDA -> EDI

EDI DOCUMENT TYPES	VDA STANDARD	GLOBAL EDIFACT STANDARD (GS1/VDA)	EDIFACT MESSAGE TYPE
Order	VDA 4925		EDIFACT ORDERS
Order change	VDA 4925		EDIFACT ORDCHG
Delivery schedule	VDA 4905	VDA 4984	EDIFACT DELFOR
Daily call-off	VDA 4915	VDA 4985	EDIFACT DELJIT
Delivery bill	VDA 4913	VDA 4987	EDIFACT DESADV
Stock report, movements	VDA 4913	VDA 4990	EDIFACT INVRPT
Invoices	VDA 4906	VDA 4938	EDIFACT INVOIC
Credit (Selfbilling)	VDA 4908	VDA 4938	EDIFACT CREADV
Payment notification	VDA 4907		EDIFACT REMADV
Incoming goods report	VDA 4913		EDIFACT RECADV
Order confirmation			EDIFACT ORDRSP
Article master data			EDIFACT PRICAT
Sales report			EDIFACT SLSRPT
Shipping notification	VDA 4933		EDIFACT IFTMIN

### Scheduling and capacity planning

#### AUTOMATIV PLANNING

The automatic planning gives you an overview of your orders, their expected deviation from the delivery date and the utilization of your resources. By means of predefined routings, in which resources and shift schedules are reflected, as well as predefined target dates, the automatic planning calculates a production date for you. The new design plans all production orders, starting backwards from the target date.

#### SHIFT SCHEDULES AND CAPACITIES

TimeLine ERP will support you in managing your different shift schedule models. State specific holidays as well as the allocation of resources determine the available capacity available for your planning.

#### GANTT AND CALENDAR DISPLAY

The GANTT chart is used to find deadlines and provides the ideal overview for identifying possible bottlenecks. It shows the utilization of your resources in the production process. In the planning calendar, you can display each individual resource in a daily, weekly or monthly overview.

#### **STAFF PLAN**

The Staff plan gives a comprehensive view of your employees' sick and vacation days. Overlapping absences become visible. The recorded sick and vacation days can be directly exported for payroll accounting. This results in target times that serve as the basis for the staff time accounts

reisonale	insatzplanung 🗙																																			
Schichtpla	n																																			
Filter Op	tionen																																			
Alle Nur A	bteilung																																			
C	ezember 2022																																			
			Kw 48						49, 2							50, 2							51,2						(w 52,				-	2	022	+
			02 FS	03	04	05	06 FS	07 FS	08	09 FS	10	11	12			15 NS		17	18					23 NS	24	25	26 UR		28 UR		100	31	Jan	Feb	Mrz	Apr
A.A.	Adams Achim		NS					NS					100.00									SS					100.2		UR					100	June	a particular a construction of the constructio
RD DK	D. Robin	-	KR			KR.	68	KR	100	-			Tenan I		AT	UR					AT						UR		AT	1000			Mai	Jun	Jul	Aug
DK KK	K. Dustin K. Kevin	_	SS	-		-	SS	SS		SS	-			AT		AL											AT		AT							-
			SS				SS	SS		SS						AT				AT	-	-	KR						AT				Sep	Okt	Nov	Dez
ML	L. Marvin	-	AT			AT			AT					_							AT	AT	AT						UR							-
MM KP	Mustermann Max Peter Klaus		AT				AT		AT							UR				AT	-	KR		AT					AT				Legen	ide		
			AT					AT								AT						AT							AT					Frühsch	tht	
TT	Tim Teumann	AI	AI			AI	AI	AI	AI	AI			AI	AI	AI	AI	AI			AI	AI	AI	Al	AL			AI	AI	AI	AI	AI			Grankhei	E.	
																																		Nachtsch	icht	
																																		Arbeitsta		
																																	_			
																																		Spätschie	ht	

### Sequence planning and fine planning

#### **FINE PLANNING**

Fine planning is used to manually optimize the planning result in order to achieve an ideal setup sequence. Automated planning and fine planning are closely interlinked. In this process, the pending planned production orders and actual production orders are transferred from the automated planning into fine planning. This enables an alternative resource planning.



## **EXTERNAL PRODUCTION**

The integration of the extended workbench into the planning system, costing calculations, logistics and production feedback is easily managed in TimeLine ERP. All essential processes of external production are adminstrated by an accompanying document or forecasts.



### **Extended workbench**

#### **ROUTING PLAN**

External manufacturers can be linked as external resources in any routing plan. That is all you need to distinguish an internal from an external routing opertation.

#### PLANNING

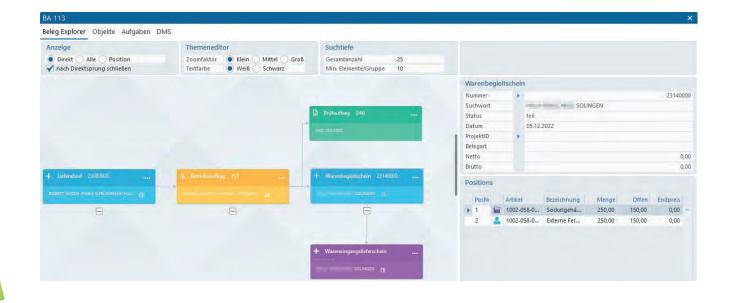
Lead times for external manufacturers can specified in days so that external operations are included in forward and backward scheduling.

#### CALCULATION

Since TimeLine ERP also manages each external manufacturer as a supplier, individual prices can be stored for each operation. These prices will also find use within the calculation.

#### LOGISTICS AND WAREHOUSING

Since TimeLine ERP also manages each external manufacturer both as a supplier and as an independent warehouse. The outgoing goods are sent to the external manufacturer with an accompanying document, which means that the external manufacturer's stocks can be tracked at any time. Through the barcodesupported feedback the external manufactuerer's warehouse is beeing balanced. Evaluations of the external manufactuerer's adherence to delivery dates are included in the supplier evaluation .



## TOOL MANAGEMENT AND TOOLMAKING

TimeLine ERP provides tool management and toolmaking features for plastics processing companies, as those are core areas of the industry. Tool life cycle, production cycles and ownership terms are displayed transparently

#### **MULTIPLE TOOLS**

TimeLine ERP enables you to configure tool sets. Any constellation of master molds and inserts can be used to manage single as well as multiple tools

#### **TOOLS AS A RESSOURCE**

TimeLine ERP enables the configuration of tool sets. Any constellation of master molds and inserts can be used to map single as well as multiple tools.

#### SERVICE CYCLE AND MAINTENANCE INTERVALS

A production feedback of a routing operation containing a tool will automatically create a booking within the tool life cycle.

#### **TOOL LIFE CYCLE**

In addition to the automatic entries in the life cycle, you can also supplement these with manual entries, such as the delivery or shipment of the tool.

#### TOOLMAKING

The quick entry of toolmaking orders (repairs, conversions, etc.) as well as the recording of production feedback times are made possible by TimeLine ERP. The booking of repair costs is displayed within the tool life cycle.

#### AMORTIZATION

The effective amortization of your tool costs is ensured by tool amortization accounts.

#### Highlights

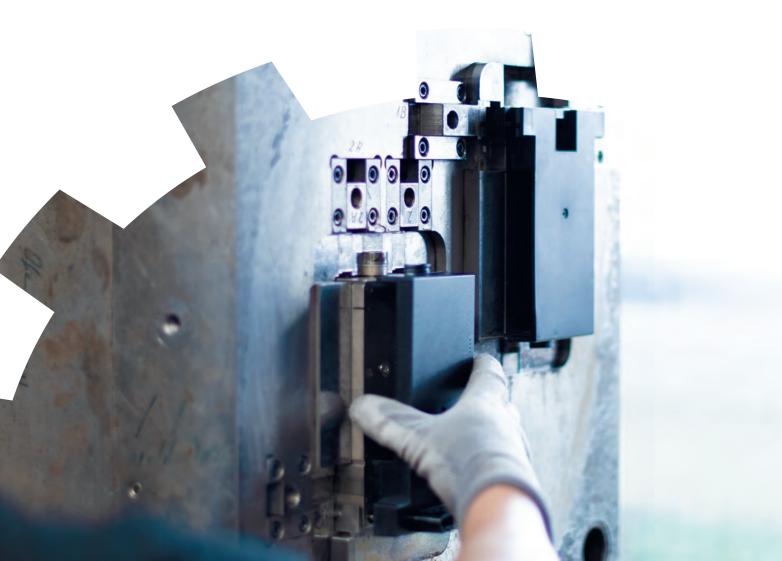
- Blockage of tools with descriptive texts
- Storage of technical master data
- Storage of external documents such as drawings or photoss
- Cost and revenue information



### Joined production

#### JOINED PRODUCTION

In coupled production, also called joint or composite production, additional products are created through the use of multiple tools. Access the master data records stored in the mold master and the associated co-products. By specifying cavities, you can specify the distribution key for your article production. With the coupling production order you thus have a possibility to run this production process integrated in TimeLine ERP.



## PROJECT MANAGEMENT IN TOOLMAKING

The project management module in TimeLine ERP was designed for tool and mold making as well as for the startup of new parts in series production. The integration of all processes in the ERP system also plays an overriding role here, because the project ultimately is a summary of all related tasks, documents and objects.

#### THE PROJECT EXPLORER - EVERYTHING AT A GLANCE

- Internal documents: overview, creation and editing of all documents from within a project
- External documents: management of all office data as well as images, drawings and other files within the project management
- Milestones: subdivision of the project into any temporal or technical sections with their own budgeting and scheduling
- Progress invoices: Budget billing and final invoicing procedures for external tool construction



## TECHNICAL CALCULATION

The technical calculation module enables an item calcuation using individual scales and takes plastic-specific costing variables such as material, nests, part and sprue weights, and recirculating articles into account.

#### TECHNICAL PLASTIC-SPECIFIC CALCULATION

TimeLine ERP links article costing with tool- and material-related parameters. This means that tool and cycle data can be stored for specific materials and machines, and costing overheads can be catalogued for different scenarios, such as series or prototype costing.

kulation 24 (Artikel - 1	1450	LEK-01) sitionen Zus	chla	gspositionen Übersic	nt D	MS / Mails					
Stamm								Geschäftspartner			
Kalkulation-Typ									and a second		
N		Vorkalkstation 24	1	aus Varianten-Tempi				GP Typ GP Ni	Kunde 10003		
Detum		05.12.2022	-	and discontractions				GP Suchwort	A58 ASEA BROWN BOVERI LI D; ZURICH		
		all realized									
Produkt								Deferanschrift			
Mehrstufig				Chantle .		Attackel		dame.	ABB Asea Brown Boveri Ltd		
Aut Projekterlandiche			ч.			Projektrituckliste					
Artisel	2	1450-618-01	Q.		10.6	nuell					
		Behälter klein						Adresse	Alfoltemstrasse 44		
Suchwart		Behälter klein									
Test								RIZ/Dit	8050 Zunidh		
								Land	CH - Schweit		
Zextmangs-ID		1450-LLKAB					a				
Tellektassifikation								Herstellungsverfahren			
Tellekissofikation		Polypropylen						Hentellungsverlahten +			
Zuardnungen								Werkzeug & Zyklusen			
Projekt		PP-SP-01							SPGMASCHARZO		
Projekt Mellenstein	1	01.01					3		WZPLIS		
Kottenstelle		APAN .						Rustael (Std)	mercas.	2.00	
Relegant	÷.	Vorsette					2	Zykhuszelt (Sek)		73.00	
West	1	Standard-West						And. Netter		2	
WFL Status		Entwurf						Antancaption		10	
Menge								Werkzeug & Zykkusan	paben MAT		
Statteikalkulation		*						Werkstoff	Polypropylen		
Lifecule Menge								Einsatzgewicht (pro Takt)		150,00	
Menge (Soli)						10.000,00		Rohgewicht (pro Sblick)		148,00	
Kalkulationsatz		Normalisatz						Anguss Week, Gew. (pro		2,00	
Kalksiationsgrappe		Standard						Warkstoff Jutze			
Material Bewertung		Basis EK						terisoulation 🕴			
Kalkulationsmenge	m										
Metache-		Meriga									
1		10.000,00									
2		15,000,00									
3		30.000.00									
4		75.000.00									
2 5		100.000.00									

## **QUALITY MANAGEMENT**

A core requirement for automotive suppliers is compliance with the new IATF 16949 standard, which requires the use of a quality management system. TimeLine ERP offers fully integrated quality management in the sense of a holistic solution concept.



### Quality management system

#### **ODUCTION MONITOR**

the production monitor, the routing plan, the inection plan and the bill of materials are captured all gether in one module including all of the technical cumentation.

the event of an index change, for example, the proiction monitor is then being copied to the new index. ie index is traceable down to the batch.

#### ODUCTION-SYNCHRONOUS INSPECTION

meLine ERP fully integrates quality management up the SPC (statistical process control) and therefore merates a so-called inspection order with every proiction order.

nce the introduction of the IATF standards, producon-synchronous inspection has been mandatory for rial manufacturers with SPC-guided parts in the autootive sector. In TimeLine ERP, individual inspection cles can be stored with reference to the number of eces, production time or packaging unit. This means at the inspection cycle also starts with the PDC stamng and leads to measurements at defined intervals.

#### Highlights

- Management of testing equipment
- capability analysis of testing equipment
- Inspection of Incoming goods
- Inspection order monitor
- Quality data capturing (QDC)
- Control chart/process capability
- Complaints management incl. 8D-Report
- Defect collection cards
- Process batches



## **DATA CAPTURING**

Labor time recording (LTR), production data capturing (PDC), machine data capturing (MDC) and quality data capturing (QDC) are combined in an integrated overall system.

### PDC and MDC

#### PDC-TERMINAL

TimeLine ERP provides an intuitive terminal interface that can be adapted to all individual requirements. Production data capturing is the backbone of production planning and simulaneous post-calculation.

#### ARBURG CONTROL PANEL INTERFACE

Data such as production orders or machine data can be exchanged via a standardized interface to the Arburg system. This enables smooth communication between the two systems.

#### Highlights

- Access to DMS-files
- Access to PDM-files
- Access to MDC-data
- Native 3D-visualization of STEP/IGES neutral formats
- QM-data capturing
- Defect collection card

## **UNIVERSAL MACHINE INTERFACE (UMI)**

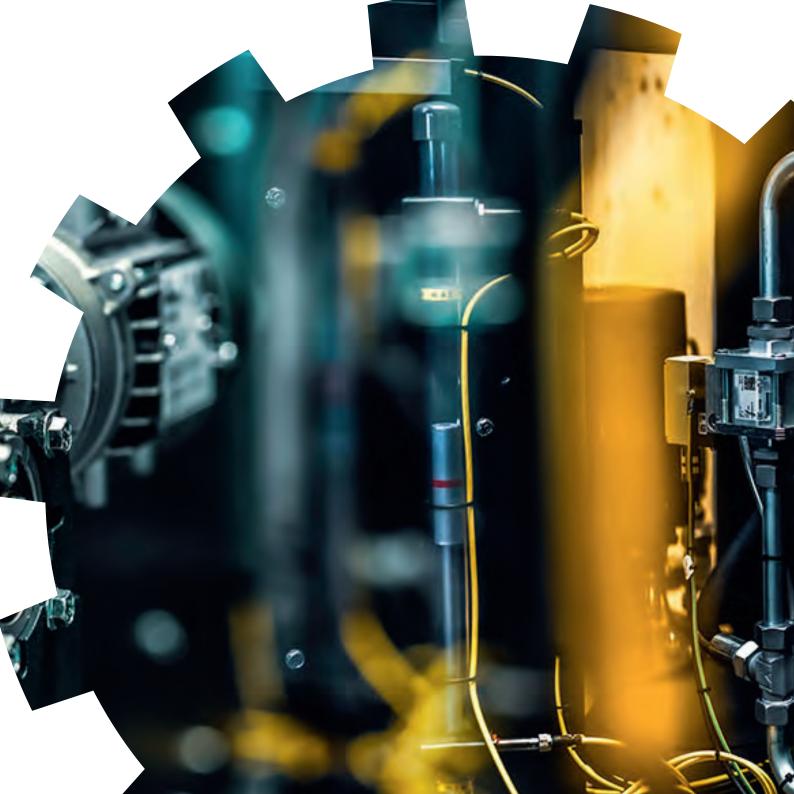
The UMI offers the best entry into the digital transformation of your production and thus into Industry 4.0. With the specially developed UMI, the TimeLine Group offers a simple and cost-effective solution for digitizing analog machines and obtaining information about runtimes, downtimes, performance levels and quantities.



With 10 ports (5-24V), the TimeLine UMI offers sufficient digital inputs to comprehensively evaluate modern machines or to record cycles, status and fault times for several machines in a "brownfield" approach (mixed environment of new and old machines).

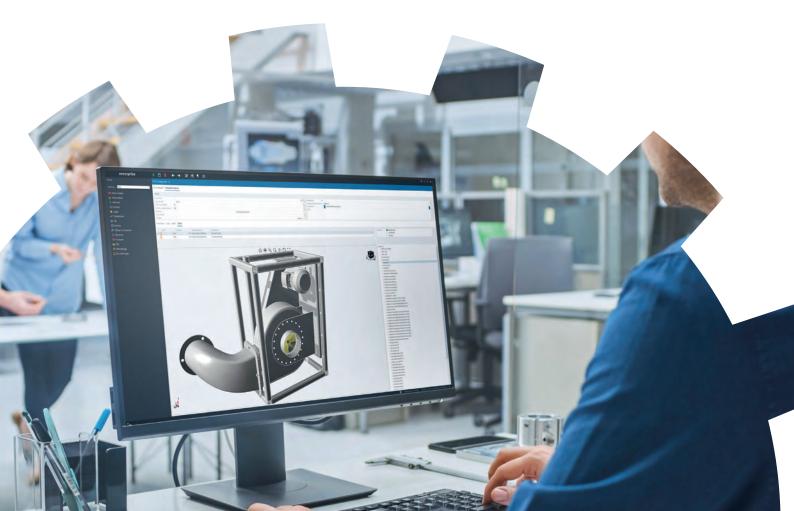
The housing, designed as a DIN rail module, allows an installation directly in the control cabinet of the machine or in the central network cabinet. An internal cache prevents data loss in the event of interrupted connections. In addition, the UMI provides a relay output (e.g. for switching off/stopping the machine) as well as a traffic light control (4-color), which can be used for individual adjustments.

Power is supplied via PoE Class 4 (13W). The network configuration is done centrally via the TimeLine MDE server.



## **CAD-INTEGRATION**

Extend your ERP and PPS features with a bidirectional CAD integration. The additional PDM module as well as the project- and document management features complete the holistic experience.



## **Bi-directional CAD integration**

#### TWO WORLDS. ONE SOLUTION.

TimeLine ERP reads parts lists and metadata natively from 3D models and synchronizes them bidirectionally and automatically with the given CAD system.

Thus, construction nodes can optionally be transferred into TimeLine ERP as items including the underlying bills of materials and remain synchronized with regard to technical data as well as revisions even after the creation.

#### INTERFACE TO INVENTOR, SOLID EDGE AND SOLIDWORKS

The plug-in for Autodesk Inventor and Solid Edge gives you the opportunity to stay in your natural CAD environment while using the TimeLine ERP features. Engineers and designers can edit all master data from their familiar CAD environment without having to start TimeLine ERP.

The plug-in displays the entire structure tree of the project BOM from TimeLine ERP (in which each node represents a PDM file) and allows direct operations in TimeLine ERP without having to leave Inventor.

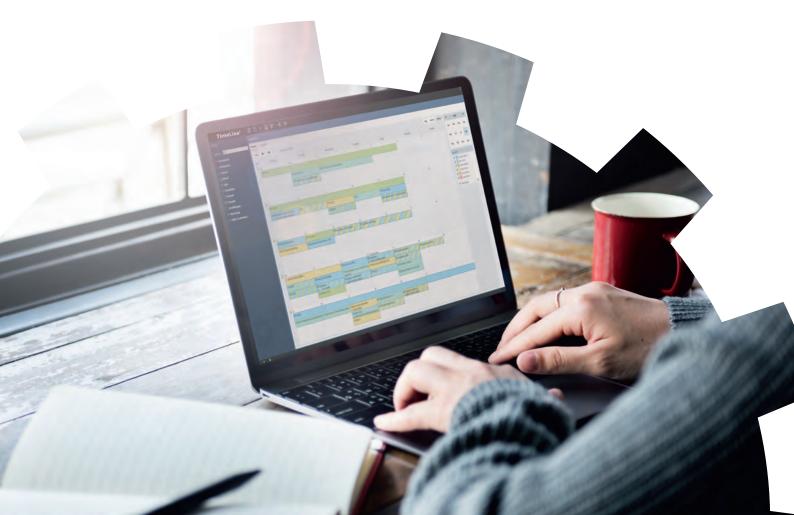
#### PRODUCT DATA MANAGEMENT (PDM)

TimeLine ERP comes with an integrated PDM system for Autodesk Inventor, Solid Edge and SolidWorks - but can also be connected to external PDM systems. Data can be checked in and out directly via the CAD plug-in, so that the engineer or designer does not have to leave his development environment.



## THE SMART OFFICE IN TIMELINE ERP

TimeLine ERP offers a complete integration of documents, e-mails, appointments, and tasks. Necessary administrative tasks, which usually have to be gathered from different software sources, can be combined within TimeLine ERP.



### Groupware

#### **E-MAIL CLIENT**

TimeLine ERP has an integrated e-mail client that coordinates the retrieval and sending of e-mails

#### Smart functions for daily operations

Automated imports and selective archiving of incoming and outgoing e-mails, including attachments: Incoming e-mails are automatically identified through the e-mail address, imported, keyworded and linked to the business partner in the ERP system.

#### **Tagging and Linking**

E-mails can be tagged and will then be linked automatically to a complaint, a project or further objects.

Furthermore, TimeLine ERP is capable of a full text search by indexing every stored document.

### AUTOMATED DOCUMENT IDENTIFICATION AND PROCESSING WITH THE TIMELINE TOKENIZER

Incoming purchase orders, incoming invoices and other documents can be processed directly from the integrated e-mail client. Items, quantities, prices, discounts, etc. within the documents are analyzed and converted directly into TimeLine document positions

The Tokenizer also comes with an OCR recognition tool which can process not only structured files (PDF, xlsx, docx, etc.) but also scanned documents.

#### Higher recognition rates through specific profiles

Higher recognition rates can be achieved through specific profiles.

Specific business partner profiles can be created to increase the recognition rate of recurring import patterns.

#### **TAPI INTERFACE**

To maintain an unbroken communication, TimeLine ERP provides the possibility of connecting an existing telephone system. Via a bidirectional exchange, calls can thus be initiated directly by the contact person within TimeLine ERP. Incoming calls can then be automatically recorded with a quick info in terms of call logs and resubmissions

#### CALENDAR

A two-way synchronization with all calendar applications on smartphones or pcs is achieved via a standard interface. In addition to that, reminders, maintenance appointments and billing cycles can be automatically generated from the calendar and transferred to subsequent processes, such as an outgoing invoice.

### **Revision-safe document management**

The TimeLine ERP document management system is certified for revision-safe archiving and offers advantages in almost all processes within the ERP system.

#### AUTOMATED IMPORT OF DOCUMENTS

With the use of Managed Directories, documents in specific directories are automatically imported into the DMS.

#### **EXPLORER INTEGRATION**

Any files can be placed directly into the DMS system via drag-and-drop from the Windows Explorer.

#### **INDEXING**

Transferred documents are automatically indexed and assigned to the respective business partners or projects.

#### MANAGE ALL DOCUMENTS THROUGHOUT ALL PROCESSES

The document explorer graphically displays the entire document references bound to a transaction and presents an overview of all DMS documents linked to each and every object within the entire process.

Audit - TimeLine ER	D VIA		41	VOI CERT»
Addit - TimeLine Eki	F, V14			voice of information
5 Ergebnis der Prüfun	g			
Auf Basis aller Ergebnisse (Prüfu nahme abgegeben: 11	ng der Dokumentatio	on, Telefoninter	views, Vor-Ort-	Audits) wird folgende Stellung
Mittels der Softwarelösung Tin Revisionssicherheit gemäß den IT-Lösungen des "Verbandes Or mationstechnologie GmbH" (TÜ Die erfolgte Prüfung bezieht sich	Auditkriterien für d rganisations- und In ViT) (TÜV NORD GRO	igitale Dokumer formationssyste DUP, Essen) erfü	nten-Managem eme e.V." (VOI, illen.	ent-Prozesse und verbunden Bonn) sowie der "TÜV Infor
Kapitel 2 spezifizierten gesetzlich	nen Vorgaben in Deu	tschland, Östern	eich und der Sci	nweiz.
	Empfehlung zur	interes	Die Durchfüh-	and a state of the
Prüfungsgegenstand	Emptentiang 2ur Erteilung / Auf- rechterhaltung des Zertifikats	Die Vortage weiterer Nachweise ist erforderlich*	rung eines Nach-Audits ist erforder- lich*	Freigabe durch VOI CERT, Bonn In Zusammenarbeit mit der TÜ Informationstechnologie Gmbi Essen (TÜV GROUP NORD)
Prüfungsgegenstand Einhaltung der Revisionssicherheit von digitalen Dokumenten durch Einsatz der Softwarelösung TimeLine ERP, Version 14	Erteilung / Auf- rechterhaltung des Zertifikats	weiterer Nachweise ist	rung eines Nach-Audits ist erforder	VOI CERT, Bonn In Zusammenarbeit mit der Tü Informationstechnologie Gmbi
Einhaltung der Revisionssicherheit von digitalen Dokumenten durch Einsatz der Softwareibrung	Ertellung / Auf- rechterhaltung des Zertifikats	weiterer Nachweise ist erforderlich* Nein	rung eines Nach-Audits ist erforder lich*	VOI CERT, Bonn in Zuarmonatici mit der UT Informationstechnologie Gmb Essen (TUV GROUP NORD)
Einhaltung der Revisionssicherheit von digitalen Dokumenten durch Einatz der Softwartlösung TimeLine ERP, Version 14	Ertellung / Auf- rechterhaltung des Zertifikats	weiterer Nachweise ist erforderlich* Nein	rung eines Nach Audits Ist erforder Sch* Nein	VOI CERT, Bonn in Zuarmonatici mit der UT Informationstechnologie Gmb Essen (TUV GROUP NORD)





#### **TimeLine Business Solutions Group**

Headquarters: Gebauer GmbH Obere Dammstraße 8–10 42653 Solingen

Tel.: +49 212 230 350 E-Mail: info@timeline.de www.timeline-erp.de



AWARDS 2023

for

**TimeLine Business** 

**Solutions Group**