

**inteos**

**Your customised  
solutions!**



Halo GmbH





# Halo – a competent partner!

## Customised solutions

ERP – from offer to invoice  
MES – from fibre to product  
Monitoring – for all production areas

Since its foundation in **1988**, Halo has been developing **tailor-made IT solutions for the textile industry**. Founded by Roland Hassler and managed together with **Marcus Ott**, the company is characterized by its **textile DNA** - the business premises are still in the former embroidery and finishing company Julius Ott GmbH.

Because of this background, we know the requirements, peculiarities and challenges of textile production from scratch - and you will find this advantage in experience in the quality of our products as well as in contact with our employees who not only master the programming craft, but also have **extensive textile competence**.

More than 35 years of experience make us your competent partner for the development and application of **fully integrated solutions** in the textile sector.

## Why inteos®?

One partner  
Textile competence  
Personal contact  
Short amortisation period  
User-friendly – intuitive to use  
Introduction into ongoing production

## Company

International structure  
Local presence  
Textiles competence & network  
Independent & successful

## Service

Physical proximity & direct contact  
Flexible & project-oriented implementation  
Joint development

# inteos® – customised textile solutions for MES and ERP!

inteos® is more than a software solution. We offer you a complete package of technical and textile competence, which integrates all ERP and MES applications and is individually tailored to your company processes. We not only provide software, but also bring in our extensive textile experience to optimize your processes so that synergies can be used and the potential of inteos® can be exploited.

inteos® covers all production processes - from the

fiber to the product, from the offer to the invoice. Thanks to the modular structure, you only use and pay for those functions that you need. For the integration of third-party software, we provide a large number of standardized step points, which enable connection to all common providers.

With this approach, we create a tailor-made solution that saves time, energy and money and ensures the highest quality standards – an all-around sustainable solution.

## inteos® | the product

We understand inteos® not only as an isolated technical solution or finished software package, but as an overall package to optimize your production processes!

**Weaving | Preparation | Knitting | Warp knitting |  
Finishing | Printing | Sewing**

A project with inteos® thus includes overcoming technical challenges as well as a holistic analysis of your company's internal processes and their optimization, which we can cover with our fully integrated solution through all departments of modern production.

The textile background and the enormous experience of our developers & project managers enable a comprehensive examination of the individual needs of your company, which goes far beyond a tunnel view of purely technical or development-related problems. inteos® is more than a software solution!







# Sustainability – in every respect

With inteos® you go for sustainability – in every respect. We understand economic and ecological sustainability as essentially interlinked processes. The more efficiently you design your internal processes, the less time, money and manpower is invested, the less resources are wasted.

## Return On Investment

Our most important concern is to maximize the Return on Investment (ROI) for our customers. With this we target not only the immediate effects of using our software, but at a comprehensive and

long-term overall package - inteos® is offered to you at a fixed price that you can rely on.

You can also rely on long-term support for our software, which we have been continuously developing for 35 years in collaboration with our existing customers. Your existing software is continuously updated and always kept up to date with the latest technology. Below are some examples of how you can improve your input-output ratio with inteos®.

With inteos® you increase the transparency of your company processes, optimise machine utilization and inventory levels and thus maximize your productivity and minimize costs and resource use. Not only is your company balance sheet happy - the ecological one will also thank you.



# ERP – from offer to invoice

inteos® is based on a modular concept that makes it possible to realise a flexible, specific solution to meet your needs. With the full inteos® software package you will benefit from a completely integrated system, which undergoes continuous developments representing a long-term investment.



## **ORD | ORDER & OFFER**

- Offer – management & tracking
- Order – management & tracking
- Deadline supervision & contract management
- Complaints management – help desk



## **MAT | MATERIAL MANAGEMENT**

- Material management for all production areas
- Stock management & reporting
- Purchase & contract management
- Valuation – daily basis & by specific date



## **FAS | DELIVERY SLIPS & INVOICE**

- Delivery slip & packing list & way-bill
- Invoice & credit note
- Credit limit & approval management
- Settlement for representatives



## **CST | CALCULATION & KEY DATA**

- Pre-calculation – material & production
- Post-calculation & contribution margins
- Stock valuation & work in progress
- Key figures & statistics



## **F&E | RESEARCH & DEVELOPMENT**

- Innovation & development
- Master data styles & material
- Sewing & BOM structure
- Samples & collections
- Project management



## **XCH | INTERFACES**

- SQL DB interface "ClientAccess"
- Interface XML – CSV
- File export XLS – CSV
- Interface FICO – CAD

# MES – from fibre to product

With the products developed only by engineers with textile know-how, all areas of the textile production process can be covered. With inteos®, Halo realises the first solution for ensuring the complete integration of all production applications. As a result, interfaces are avoided, processes are optimised, costs are reduced and quality is assured.



## PRO | PRODUCTION

Planning & production management for all production areas

Operating plans & documentation

Lot and order tracking & return management



## BAS | MES & MONITORING

Production monitoring for all production areas

Monitoring of performance & process data

Employee time sheets

Reports & lists / statistics

Report generator – flexible



## PLA | PLANNING & SCHEDULING

Capacity planning & reservation

Rough & detailed planning

Deadline supervision & target-actual comparison

Plant view with optimisation & simulation

Master data for resources – machines – processes



## TEC | RECIPE & TECHNICAL MANAGEMENT

Technical process instruction

Process optimisation & documentation

Test plans & assessments

Recipe management, colour matching & stock

Machine settings



## QSM | QUALITY MANAGEMENT

Fabric inspection – defect recording & reimbursement

Reimbursement – item / customer

Item label – list of pieces & quality data

Quality management & reporting

Quality-based approval management



## MOBILE SOLUTIONS

Mobile devices

Smartphone / tablet

Web interface



# Weaving | Knitting

MES systems are especially significant in Weaving | Knitting due to the large number of machines for particular challenges - the precise and reliable real-time recording of production data such as running and set-up times, for example, is of particular importance. The long lead times require the most precise material requirements planning possible. inteos® is the ideal partner to meet these challenges due to the textile know-how of its developers.

With inteos®, all applications of a modern weaving/knitting production are integrated, from the production overview to planning & dispograph to quality management. Of course, all production stages can also be operated „on the go“ – with our handheld solutions „weaveLINK“ and „knitLINK“!



Production | Plant view  
Planning | Scheduling  
Report generator



Maintenance | Planning & management  
On-loom fabric inspection  
Warp length measurement



Machine settings | Set-up time  
Info point | Alarm server





### PRODUCTION | PLANT VIEW

The plant view enables the transparent monitoring of machines and all required resources.

The graphic real-time display of the machine status and the integrated alarm server identify problems immediately.

The report generator allows for the simple and flexible preparation of reports and statistics.

The master data for machines, personnel and shift calendar are easy and flexible to manage.



### PLANNING | SCHEDULING

Production planning can easily be carried out with flexibility using "Drag & Drop" functions.

For determining the planned completion dates, all relevant parameters are considered – e.g. style, speed, efficiency, shift calendar etc.

The compatibility check supports the process of selecting the most appropriate machine.

The integrated alarm server monitors the compliance with the projected completion date in all production areas.



### HANDHELD | INFOPOINT

Our robust handheld can be used in all production stages and enables flexible and independent access to all production data that our Infopoint application provides. The integrated alarm server warns of deviations and irregularities.

The handheld establishes the connection between „human“ and „machine“ and offers countless possibilities, ranging from visual documentation to barcode scanning and messaging functions.

A particular focus is on use in the areas of production, quality, maintenance and warehouse management.



### MACHINE CONNECTION | INTERFACES

inteos® enables the networking and integration of a variety of machine generations. The latest generation of machines with ethernet or OPC-UA interfaces can be linked directly, while all other machines can be integrated via standardised inteos® interfaces.

This allows for the complete compilation of all relevant production data down to the last detail – for example including previnder number and at what degree a weft stop occurred.



### MACHINE SETTINGS

The machine settings realise the fully integrated communication of inteos® <=> ethernet machine and enable the automatic transmission of all relevant control data and setting data according to the production planning and commencement of the job.

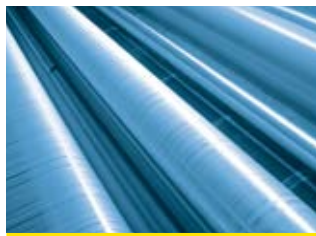
The most modern generation of machines with ethernet interfaces can be linked directly, while all other machines can be integrated in the ethernet network by means of standardised inteos® interfaces.





### **MAINTENANCE | PLANNING & MANAGEMENT**

The maintenance plans and the accessories management allow for the anticipatory planning and optimised assessment of the maintenance work and the wear on accessories (e.g. reeds / rapier heads / brakes / oil etc.).



### **SPECIAL APPLICATIONS**

With the on-loom fabric inspection, the quality data can consistently be registered and accurately assigned from the weaving preparation to the weaving to the fabric inspection.

With the warp length measurement, the accurate determination of the available remaining length is possible – accurately assessed based on the actual amount produced.



### **KNITTING | WARP KNITTING**

For knitting, we offer the inteos® NETWORKER, Halo's fully integrated software and hardware solution specifically for the knitting factory, which allows all knitting machines to be seamlessly integrated into our inteos® MES and ERP applications via our IF KNIT interface.

Without effort, the inteos® NETWORKER connects to circular knitting machines from a wide range of manufacturers. The NETWORKER makes circular knitting machines smart and thus supplements them with numerous features, ranging from automatic stop cause detection to detailed yarn length consumption measurements.



**Weaving | Knitting**

# Finishing | Printing

In Finishing | Printing, as in all other production areas, special challenges arise that no „one size fits all“ approach covers. Whether it is the high number of users, the possibility of simultaneous processing of an order by different users, or the flexible coordination of employees, machines and activities - inteos® covers all requirements individually and accurately and integrates all applications of modern production.

The tailor-made offer includes all production stages - from the production monitoring & plant view to planning & control to formulation & colorimetry, machine settings, quality management and maintenance management.



Production | Plant view  
Planning | Scheduling  
Info point | Traceability



Recipe calculation | Colour matching  
Recipe management  
Machine settings | Set-up time



Maintenance | Planning & management  
Quality | Management & tracking  
Fabric inspection





### PRODUCTION | PLANT VIEW

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### INFO POINT | TRACEABILITY

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### PLANNING | CONTROL

Production planning for all production processes can easily be carried out with flexibility within the network.

For determining the planned completion dates, all relevant parameters are considered – e.g. style, speed, efficiency, shift calendar etc.

The compatibility check supports the process of selecting the most appropriate machine.

The integrated alarm server monitors the compliance with the projected completion date for all production processes.



### RECIPE MANAGEMENT | COLOUR MATCHING

The recipe management is for all production processes from preparation to dyeing, printing, finishing and lamination.

The integration of colour matching guarantees the optimal use and integration in the MES solution.



### FABRIC INSPECTION

The fabric inspection can be used for all production processes – from the grey fabric inspection during production, the preview for the cut optimisation to the final inspection for the finished piece.

The use of standardised types of errors and structured compensation schemes optimise the application in daily production.





### **QUALITY | MANAGEMENT & TRACKING**

Quality management enables the monitoring and evaluation of all quality-relevant data in all production processes.

The quality data can also be structured and filed according to order, style and piece.



### **MAINTENANCE | PLANNING & MANAGEMENT**

The maintenance plans and the accessories management allow for the anticipatory planning and optimised assessment of the maintenance work and the wear on accessories (e.g. spare parts / consumables etc.).



### **MACHINE SETTINGS**

Machine settings realize the fully integrated communication of inteos® <=> machine over Ethernet and OPC-UA.

They allow automatic transmission of all relevant control and setting data according to production planning and the start of the production order.



**Finishing | Printing**

# Sewing

The textile industry is an industry unlike any other and poses particular challenges in production. Sewing is no exception - from the complexity of the work plans to cross-departmental planning and different batch sizes, there are requirements that only a tailor-made product like inteos® can really meet.

From plant view / production overview to planning & scheduling, quality management & maintenance management, inteos® integrates all applications throughout all stages of textile production.



Production | Plant view  
Planning | Scheduling



Quality | Management & tracking  
Maintenance | Planning & management



Info point | Work in progress





### PRODUCTION | PLANT VIEW

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### QUALITY | MANAGEMENT & TRACKING

Quality management enables the monitoring and evaluation of all quality-relevant data in all production processes.

The quality data can also be structured and filed according to order, style and piece.



**Sewing**

# Mobile solutions | Hardware

Custom-tailored MES hardware by inteos® is the perfect fit for your requirements. Our mobile tablets and handhelds make it possible to track and visualize all production information for an at-a-glance overview — in real time and wherever you like, because our devices are portable and suitable for flexible use. Their integrated scanners make external scanning solutions redundant, and the built-in cameras take care of the visual documentation of issues and defects.

You get the optimum solution for you, tailored to your process flow - for example, our inteos® IF NET interface to turn older machines without Ethernet or OPC UA connection into smart devices, or our intuitive DT M touchscreen terminal for industrial environments. The inteos® NETWORKER enables the integration of circular knitting machines from numerous well-known manufacturers. Our range of products is rounded off by our tLink handhelds, which make all data available on the go.



Mobile solutions  
Tablet | Handheld | Smartphone



DT M | Terminal  
Touchscreen - IP65



Interface | IF NET | IF KNIT  
Interface | OPC-UA Ethernet VDI



### DT M | TERMINAL

Our DT M terminal has a 15 inch touch screen and can be connected to a barcode scanner.

It is also possible to use printers, scales and external keyboards.

The large display, in combination with our software, enables extremely intuitive usability, making all relevant data available at a click.



### IF NET | IF KNIT

Our data interfaces IF NET | weaving and IF KNIT | knitting make older machines without Ethernet connection „smart“ and brings them up to date.

All production and machine information is made available for inteos® production data acquisition.



### SCANNER

The barcode scanner is integrated into our handhelds, enables bidirectional scanning and makes external solutions unnecessary. You receive a complete solution from one source.

In combination with the visual documentation, you can immediately document every booking process as well as any problems or product defects and record them in the system.



### EXPLORE OUR VIRTUAL FACTORY

How does ERP and MES software work in practice? With our newly developed Virtual Factory you can test and walk through our software in real time in a fully three-dimensional and interactive environment.

The Virtual Factory maps all departments of an integrated textile production - starting with yarn, weaving and knitting, through fabric inspection and finishing, to shipping and logistics in the warehouse. [Contact](#) us for a demonstration or visit us in Lustenau.

### Video



### TABLET

Our tablets run on Android or iOS depending on the requirements and are networked via WLAN or wired LAN.

They are available for all production stages and allow mobile and flexible access to your production data.







Mobile Solutions | Hardware



### HANDHELD | tLINK

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### VISUAL DOCUMENTATION

A picture is worth a thousand words. The integrated camera of our handhelds enables us to visually document any situation or problem at any stage of production at any time. The images are immediately available without restrictions and linked and retrievable in the system at all relevant points.

-  Visual documentation
-  Digital communication
-  Camera
-  Scanner



### IOT – INTERNET OF THINGS

-  Link man < > machine
-  Digital communication
-  Visual documentation
-  Messaging
-  Production management
-  Quality management
-  Maintenance management
-  Warehouse management



### inteos® NETWORKER MOBILE

#### Real-time monitoring with:

- Customisable dashboard
- Table view with detailed data for each machine
- Easy overview on machine status – e. g. running, error, stop, offline
- Increase of efficiency
- Pre-defined statistics for machines/operators/groups to analyse efficiency, stop causes and downtimes in various table views and diagrams.
- Stop statistics for machines to analyse the stop causes and downtimes providing a variety of plots and diagrams.
- Identify weak spots on your production process



#### Yarn management

- Documentation of technical and commercial data

#### Article management

- Documentation of quality figures and classifications for the article
- Live tolerance comparison of yarn consumption, speed and revolutions per roll

#### Order management

- Production planning

#### Operator management

- Operator assignment to the machines via shift plan or login
- Operator efficiency statistics



### IF KNIT | Interface

With minimal effort, our IF KNIT machine interface can be connected to circular knitting machines from a wide range of manufacturers and, as part of our NETWORKER solution, makes conventional circular knitting machines smart, thus adding numerous functions to them.

The range extends from automatic stop cause detection to detailed yarn length consumption measurements.



## inteos® IT Technology

### OPERATING SYSTEM WINDOWS

MS-Server®  
Client W10 / TS

### DATABASE SQL-SERVER

MS-SQL-Server®  
Scalable & upgradable  
Flexible & maintenance-free  
Mainstream = Standard platform

### DATABASE MODEL

Simple handling  
Data directly processable  
Highest stability  
Maintenance-free  
Update-readiness/release-readiness

### NETWORKING ETHERNET

Administration & production  
Directly linked machines  
Cable & WLAN







## Team – flexible and committed

Individual solutions require creative and flexible minds: the textile experience and high innovative capacity of our staff guarantee both the quality and the continuous updating of our products.

Should problems nevertheless arise, our team, which has grown together over many years and is perfectly coordinated, is available to you immediately around the clock!

**We insist on short, direct communication channels.**

You can therefore contact the responsible staff member at any time.

We are at your disposal at any time and address your concerns with the competence and ease of mind that can only be offered by a team that has grown organically over the years and is perfectly coordinated!



# Extract from our reference list

Renowned companies in the industry put their trust in inteos®. Take a look at our references from various areas of the textile industry. We would be happy to put you in touch with one of our customers so that you can obtain an independent opinion about our product. Quality speaks for itself!



## SETEX

„Thanks to the introduction of intros® – integrated from yarn management all the way to the warehouse – we have been able to improve data transparency throughout our company to an exceptional degree. This, we can instantly serve the needs of our customers at any time.

Likewise, the traceability of our individual production steps is guaranteed at any time!“

**Bärbel Hoffmann**  
Project Manager,  
SETEX Textil GmbH



## CALZEDONIA

„inteos® was completely connected to the ERP system from ITACA. The continuously transmitted progress reports on the production process deliver reliable, real-time updates to the ERP system, which can be evaluated both for the optimization of production processes and for financial and accounting purposes.“

**Statement Project Director,  
ITACA, Production site in  
Mek'ele, Ethiopia**



## LECO

„We can only confirm that everything Halo promises will be implemented. The employees at Halo have a very good understanding of textiles, know the specifics of the different textile industries and thus speak our textile language.

The collaboration was and is always good and goal-oriented. We are confident that with Halo and inteos® we have chosen the right partner.“

**Christoph Seiger**  
Operation Manager,  
LECO-Werke Lehtreck  
GmbH&Co.KG



## BANDEX

„The collaboration with Halo during the entire project phase was very congenial and very fruitful for both sides. In particular, the implementation of a bidirectional connection of the weaving machines and warping machines is a novelty in textile production. inteos® is a very simple and intuitive system, which increases its use and acceptance in production. Halo easily implemented Bandex's requirements and we received a tailor-made system.“

**Andreas Geiger**  
Managing Director,  
Bandex GmbH



References

CUSTOMER	AREA	MES	ERP	COUNTRY
Adesal Jacquard		✓		AR
Bandex		✓	✓	AT
Calzedonia		✓		IT, RS, ET
Contender		✓	✓	DE
Drechsel		✓	✓	DE
Fatex		✓	✓	DE
Grabher Group		✓	✓	AT
Heytex		✓		DE
Huber Bandfabrik		✓		CH
Huesker		✓		DE
Junkers & Müllers		✓	✓	DE
Keller Textilveredlung		✓	✓	DE
Kneitz   Bad Mitterndorf		✓		AT
Kneitz   Wirsberg		✓		DE

CUSTOMER	AREA	MES	ERP	COUNTRY
Lainière de Picardie		✓		FR
Leco		✓	✓	DE
Mey		✓		DE, HU, PT
Meya		✓	✓	AT
Nova Textil-Beschichtung		✓	✓	DE
pro4tex		✓	✓	DE
Propex Furnishing Solutions		✓		HU
Sanko Textiles		✓		TR
Spandauer Velours		✓		DE, HU
Setex Textil		✓	✓	DE
Triumph International		✓		CH, DE, IN, MA, VN
Van Clewe Sun Protection		✓	✓	DE
Van Clewe Textilveredlung		✓	✓	DE
Willy Hermann		✓	✓	AT



Yarn



Weaving & Preparation



Knitting



Finishing



Quality Management



Sewing

MES Monitoring / Scheduling / Quality-  
Management / Special Applications

ERP ERP / CRM / BI / Special Applications

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*As a medium-sized service provider we are in need of an ERP vendor who thinks just like we do and is just as flexible. We're happy to say we found our match with Halo!*

**Bernd Drechsel, Managing Director, Textilveredlung Drechsel GmbH, DE**

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## References



