

ZEUS[®] **PRODUCTION DATA CAPTURE**

FOR MORE TRANSPARENCY AND EFFICIENCY



COMPETENCE FOR MORE PRODUCTIVITY IN MANUFACTURING



ZEUS® PDC – AS INDIVIDUAL AS YOUR PRODUCTION

By nature, production processes or manufacturing organisations differ from company to company. Bearing this in mind, your individual objectives, specific requirements and processes as well as the current conditions, special features and interfaces will be identified in a joint workshop. Our experienced staff ensure a professional step-by-step implementation of your requirements in our flexible and freely parameterisable solution environment. This allows you to keep track of your production at any time and to operate more efficiently. With just a few clicks, you gain access to all relevant data and can filter it according to your individual needs. Get the best out of your production and increase your productivity using ZEUS® Production Data Capture.



ANALYSING AND EXPLOITING POTENTIALS WITH ZEUS® PDC

Wherever production managers are concerned with production planning, process optimisation and cost control, the focus primarily lies on production data capture (PDC) as central module of an MES solution. A future-oriented PDC solution is characterised by its ability to flexibly map any customer-specific workflows and production processes avoiding costly bespoke development. The modular design of ZEUS® PDC provides customised solutions to meet your specific business requirements – from simple cost centre recording to job costing up to complex industrial production data capture with automated ERP communication.

With ZEUS® Workforce Management, ISGUS has developed a series of individual modules that provide companies and administrations with sustainable support for digitalisation in the field of HR management. The complementary modules for time recording, workforce scheduling, production data capture and corporate security can be conveniently and flexibly tailored to suit any individual business needs and preferences. The sophisticated ZEUS® solutions from ISGUS are used successfully by reputable SME and industry customers, transport and logistics companies, in retail, banks, healthcare and all levels of public service. ISGUS provides the perfect solution for every size of company and every business sector. Benefit from our know-how and long-standing experience resulting from over 15,000 installations worldwide.

CUSTOMER PROXIMITY IS ON TOP PRIORITY OF ISGUS

The ISGUS Group operates a dense network of sales and service centres and, with numerous locations worldwide, we most certainly are represented in your vicinity. Backed up by our branch offices in Austria, UK and the USA, and professionally assisted by our long-standing system partners abroad, we are your reliable partner for both national and international projects.

Our experienced, competent staff will be pleased to assist you in every phase of the project, providing consultancy, training and qualified service support in your region. We at ISGUS are well aware that customer satisfaction is directly linked to customer loyalty. This is evidenced by the fact that we can count on numerous customers deploying our ZEUS® software solution already in its fourth generation.

ZEUS® PDC THE SOLUTION FOR PRODUCTION DATA MANAGEMENT



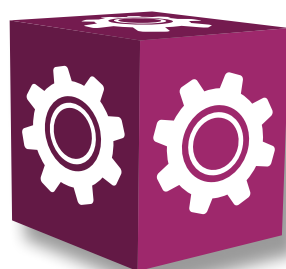
ZEUS® PDC IN THE ISGUS CLOUD

A thorough analysis of your individual requirements and objectives is of primary importance. We take this as the basis for developing customised solution concepts and advise you on business, organisational and technical matters, bearing in mind your future strategies and business plans.

All ZEUS® Workforce Management modules are available either as on-premise solution deployed in the customer's own IT environment or as Software as a Service (SaaS) solution hosted in the ISGUS Cloud. The latter allows ISGUS users to benefit from predictable costs and from the elimination of capital expenditures for database licences, servers and IT administration. Furthermore, SaaS stands for seamless availability and a high level of data security guaranteed in the ISGUS data centre at our headquarters in Villingen-Schwenningen.

With ZEUS® Workforce Management, the focus is always on our users.





ZEUS® PRODUCTION DATA CAPTURE

OPTIMISATION POTENTIAL THROUGH PRODUCTION DATA MANAGEMENT

For manufacturing companies, the availability of IT support in the planning, management and control of production processes opens up significant potentials for improvement and added values.

ZEUS® PDC acts as link between ERP systems and shop floor data capture. Order data from ERP systems are visualised and managed in ZEUS® PDC and subsequently reported back (to ERP) including the associated time values. The ZEUS® PDC module reliably controls and monitors the collection of operational data at the various recording points and the respective recording terminals deployed. The current time values required for the evaluation of the collected data are automatically made available by ZEUS® Time & Attendance. As a result, productive working times as well as setup, non-productive and breakdown times per order and operation are available for subsequent analyses in ZEUS® PDC and the ERP system. This way, incomplete and obsolete data deriving from conventional data acquisition is automatically updated and significantly improved.

The availability of an up-to-date, accurate and comprehensive database is undoubtedly crucial for resilient evaluations and analyses of processing times as well as for efficient milestone and deadline monitoring – prerequisite for a reliable process monitoring and production management.

In this context, ZEUS® PDC significantly contributes to optimising operational processes and improving adherence to delivery dates. Based on current and accurately recorded PDC data, frequently outdated planning data stored in the ERP system can be reliably updated and adjusted.

FURTHER MODULES OF ZEUS® WORKFORCE MANAGEMENT



ZEUS® Time & Attendance interacts fully automatically with ZEUS®. This ensures that time values allocated to orders and operations always correspond to the working time models and shift schedules valid at the time of data acquisition. Furthermore, it is possible to automate the productivity analysis or the incentive pay determination without any redundancy as absences are equally taken into account.



ZEUS® Staff Scheduling considerably improves and simplifies shift planning tasks and all associated processes, such as shift swapping. Optimum workforce allocation in production lines is reliably ensured as employee skills, personal preferences and legal requirements as well as individual time accounts and leave planning are considered during the entire planning process.

RECORDING & VERIFICATION OF PRODUCTION DATA

ISGUS
GREEN IT



Dimensions: H 205mm; W 190mm; D 67mm

IT 8210



Dimensions: H 336mm; W 347mm; D 60,6mm

IT 8270

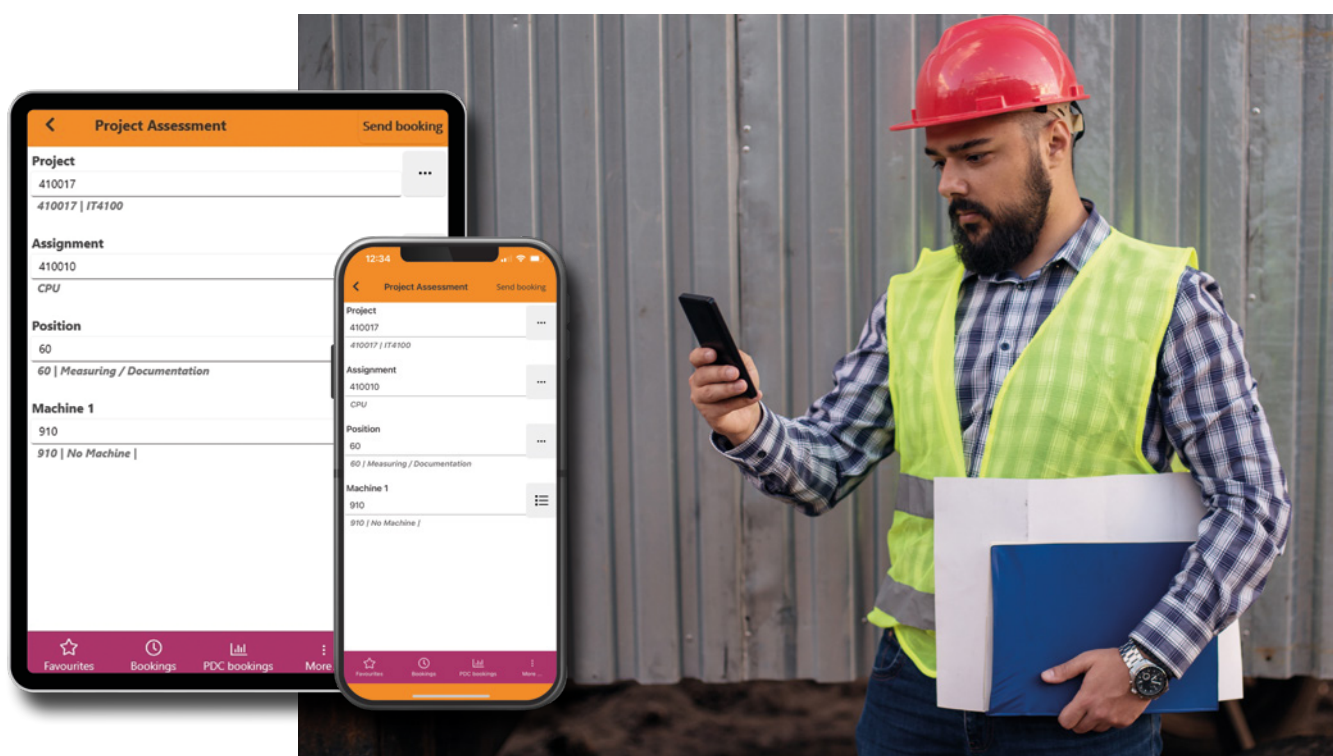
ISGUS TERMINALS: IT 8210, IT 8270, CLIENT IT 8261

Multifunctional terminals for time recording, PDC, job costing and employee self-service:


» In addition to classic time and data recording, the ISGUS terminals support a wide range of employee self-service functions that are indispensable for modern workforce management. Protected by a 3mm scratch-resistant glass front, these terminals can be operated even in harsh industrial environments. They enable professional recording of accurate, up-to-date, complete and verified data for further evaluations and analyses – prerequisite for obtaining meaningful key performance indicators and drawing valuable conclusions about productivity, efficiency and optimisation potential.

With ISGUS, digitalisation goes far beyond the mere data recording level:

- » Equipped with large command buttons and selection fields, the touch-screen interface can be easily customised to meet specific user needs and preferences on site. Thanks to the logical and intuitive user guidance, employees are navigated step-by-step through the menu and are actively supported in menu selection and data entry.
- » Optionally, comprehensive online checks can be performed to verify the plausibility of relevant input data, such as employee authorisations, order numbers, machine assignments, order sequence or admissible short / excess deliveries.
- » ISGUS terminals and clients as well as the mobile application for smartphone and tablet make digitalisation a reality for the entire workforce: whether workers in the production area using stationary terminals, office staff working at personal workstations or employees relying on their mobile device while on the move – they all have access to exactly the same scope of workflows and functions. Working times and order data can be booked and retrieved everywhere, at any time.
- » Requests for absences or holidays can be easily created and approved directly on the IT 8210/IT 8270 terminal or via the IT 8261 terminal client. Additionally, staff members who wish to swap their shift can send a request to eligible co-workers; the responsible planner then only needs to approve or reject the corresponding shift swap request.



Identification number	2
Project Name	District Office SW
Identification number	100
Milestone Name	Hardware installation



000000002000001001

Identification number	2
Project Name	District Office SW
Identification number	100
Milestone Name	Hardware installation



00000000200000100

ZEUS® MOBILE – YOUR APP FOR MOBILE ORDER AND PROJECT DATA RECORDING

The ISGUS App “ZEUS® mobile” offers the same functionalities as the stationary recording terminals and terminal clients from ISGUS. Benefit from recording working times, projects and orders at any time wherever you are – on the road, on site with your customers or when working from home.

The ZEUS® mobile App allows you to easily capture projects and activities by scanning QR codes with your smartphone. Thanks to predefined PDC parameters, recording of working hours and projects is considerably simplified. When you arrive on site, the correct project and the associated customer are automatically suggested and you only need to confirm this when you start working.

Moreover, the ZEUS® mobile App offers comprehensive employee self-service, push notification capability, a Service plan online module, and much more. ZEUS® mobile converts your smartphone or tablet PC into a smart digital device supporting mobile workforce management.

TEAM BOOKINGS VIA THE MOBILE APP

Enjoy the benefits of the so-called “team booking” function offered by the ZEUS® mobile App. This feature allows to trigger bookings for several employees at the same time. To use this function, the team leader only needs to select the team members, tools and vehicles that shall be registered in a single booking. As a result, the booked working times are exactly the same for all team members. Even the allocation of vehicles and tools can be handled via the mobile app. Thanks to these capabilities, the team booking function contributes to efficient management of valuable resources and time savings for the whole team!



PDC ORDER DATA CENTRE

Reference data

Not data related

Organization unit

Order - Structure elements

Details elements

Order settings

ABC structure

H000 | Betriebsanweisung | BOC

Structure filter

Project: 77200 BT 7200

Order: [80] IT 7200 CPU

Order position: [30] SHD Bestückung

Kleben Structure view

Kleben Order structure

Filter

Fullsize

ID

*

Name

*

Search

Apply

Order position - Structure elements

ID	Name	PSUT	TT	Time unit	per	TQ	QI	Default cost centre	Default machine
10	Material bereitstellen	43.00	Minuten (0000)	100.00	100.00	Stück	Lager	Drive Machine	
20	Raffinieren	25.00	4.00	Minuten (0000)	1.00	100.00	Stück	SHD Bestückung	
30	SHD Bestückung	45.00	12.00	Minuten (0000)	1.00	100.00	Stück	SHD Bestückung	
40	Bestückung beidseitige Bauteile	10.00	5.00	Minuten (0000)	1.00	100.00	Stück	Konvertierte Bestückung	
50	Einprüfung / Nachkühlen	30.00	3.00	Minuten (0000)	1.00	100.00	Stück	Einprüfung	
60	In Circuit Test	30.00	3.00	Minuten (0000)	1.00	100.00	Stück	IC Tester	
70	Hebung, Dokumentation	25.00	5.00	Minuten (0000)	1.00	100.00	Stück	Endkontrolle	
80	Verpackung, Transport	25.00	5.00	Minuten (0000)	1.00	100.00	Stück	Lager	

Results

Filter	Internal number	Name	For name	Print bookings last 8kg	Last bookings last 8kg	Time
	1024	Shew, Jochen		05/10/2023 07:40		05/09/2023 10:08
	1026	Polis, Hans		05/10/2023 07:40		10/09/2023 16:26

The current order status with the latest results can be viewed based on the target, actual and setup time.

The screenshot displays the 'Order position - Results' section of the PDC Order Data Centre interface. It shows a table with columns for Filter, Internal number, Name, For name, Print bookings, Last bookings, Time, and Costs. The table contains data for two orders: 1000 (Shimadzu, Buchen) and 1001 (Pilot, Hans). Below the table, there is a section for 'Order position - Results' with a table showing various time and cost metrics.

Filter	Internal number	Name	For name	Print bookings	Last bookings	Time	Costs
	1000	Shimadzu, Buchen		05/12/2023 07:47	05/12/2023 13:08	804.00 min	0.00
	1001	Pilot, Hans		05/12/2023 07:40	05/12/2023 14:08	475.00 min	0.00

	Target	Act.	Differential (%)	Unit	Target	Act.	Differential (%)
Total time	1200.00	1277.00	+7.00	min	1200.00	1277.00	+7.00
Plan setup time	1200.00	1215.00	+15.00	min	1200.00	1215.00	+15.00
Setup time	40.00	47.00	+7.00	min	40.00	47.00	+7.00
Run-down time	10.00	0.00	-10.00	min	10.00	0.00	-10.00
Breakdown time	20.00	0.00	-20.00	min	20.00	0.00	-20.00
Production quantity (TQ/TQ)	100.00	100.00	0.00	Stück	100.00	100.00	0.00
Cost per unit	100.00	100.00	0.00	Stück	100.00	100.00	0.00
Time per unit	10.00	10.77	+7.7%	min	10.00	10.77	+7.7%
Production costs (TQ costs)	100.00	100.00	0.00	Stück	100.00	100.00	0.00
Time production costs	100.00	100.00	0.00	Stück	100.00	100.00	0.00

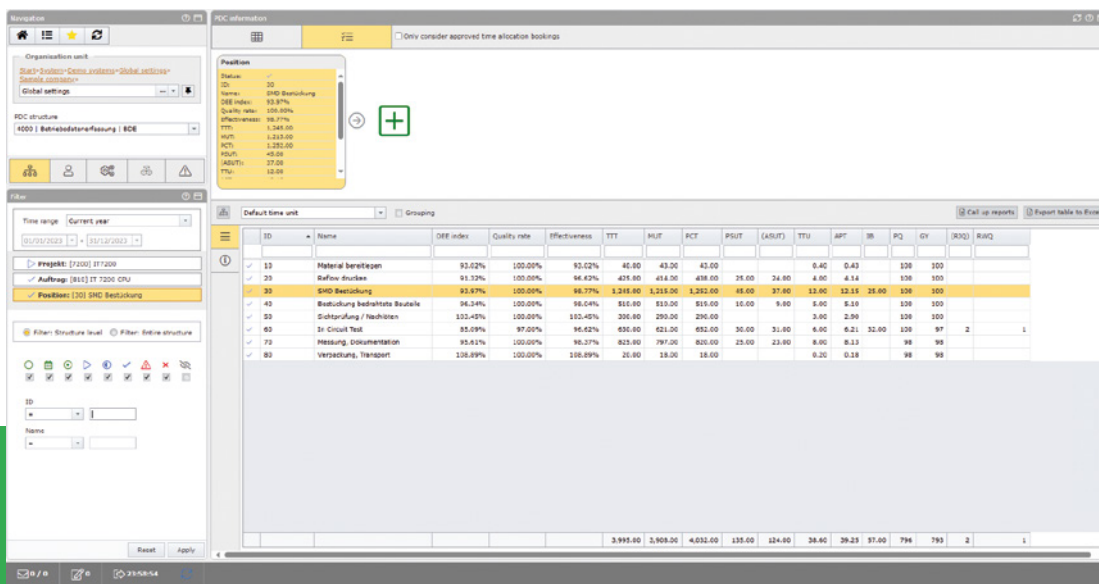


ERP COMMUNICATION

Custom, automated two-way communication enabling the exchange of manufacturing data with existing ERP/PPS solutions is crucial in the field of production data capture. Communication between ZEUS® and ERP/Merchandise Management solutions is realised via the integrated and flexible ERP communication, that enables a customised connection to be set up quickly without need for cost-intensive custom programming.

To execute the transfer of order data and to report back the updated process data completed by productive time values, the ERP communication makes use of state-of-the-art interface technologies – prerequisite for a save and smooth data exchange with all current ERP systems and industry solutions.

For multi-division companies that often use various ERP solutions, ZEUS® PDC is the perfect choice: acquiring one single licence enables communication with many different ERP systems.



Navigation

Organisation unit: Start-System-Data-Anforder-Global-actives
Global settings: Global settings

PDC structure: 4000 | Betriebsdatenerfassung | BDE

Filter

Time range: Current year
From: 01/01/2023 To: 12/31/2023

Project: 012001 IT 2009
Auftrag: 0121 IT 2009 CPU
Position: 100 BDE Bestückung

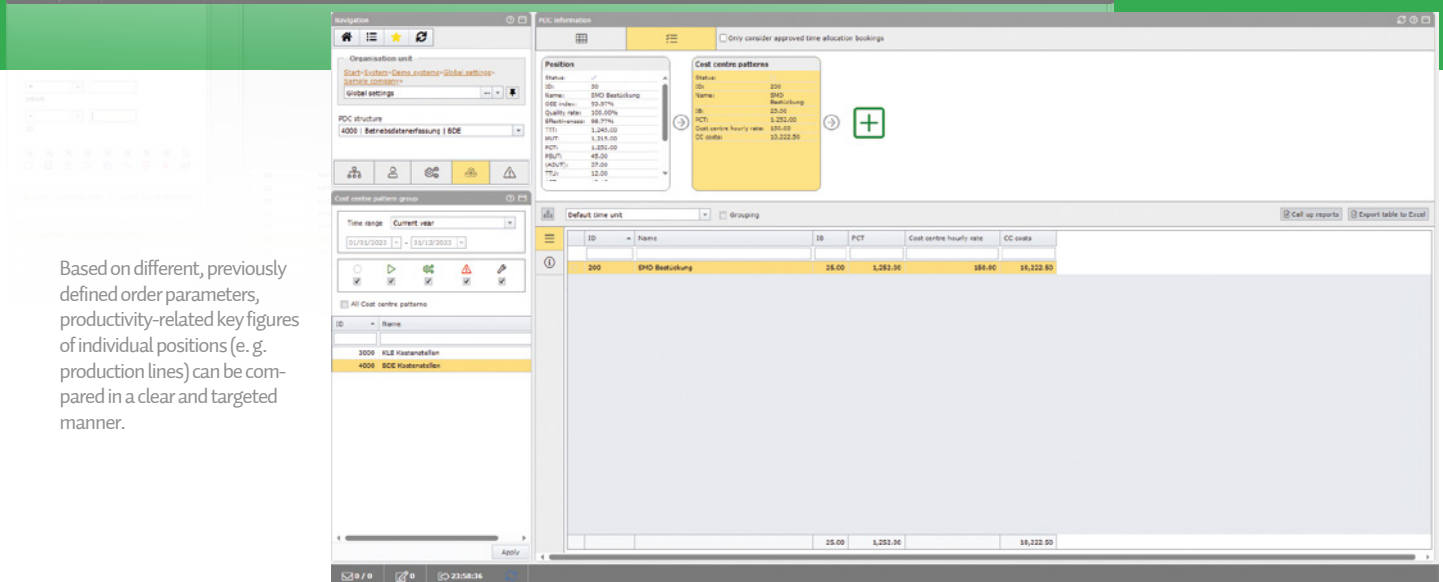
Position

ID	Name	DEE index	Quality rate	Effectiveness	TTT	HUT	PCT	PSUT	(ASUT)	TTU	APT	SB	PQ	GY	RQ	RUC
10	Material bereitstellen	93.02%	100.00%	93.02%	40.00	43.00	43.00				0.40	0.43	100	100		
20	Befehl drucken	91.32%	100.00%	96.83%	424.00	418.00	418.00	39.00		24.00	4.00	4.14	100	100		
30	BDE Bestückung	93.07%	100.00%	96.77%	1,245.00	1,232.00	1,232.00	48.00		37.00	13.00	13.15	100	100		
40	Bestückung bediente Bauteile	96.34%	100.00%	96.04%	501.00	515.00	515.00	10.00		9.00	5.00	5.19	100	100		
50	Sichtprüfung / Nachkühlen	100.00%	100.00%	100.00%	200.00	200.00	200.00						100	100		
60	In Circuit Test	95.09%	97.00%	96.62%	630.00	621.00	621.00	30.00		31.00	6.00	6.21	100	97	2	
70	Messung, Dokumentation	95.61%	100.00%	96.37%	823.00	797.00	820.00	25.00		23.00	8.00	8.13	98	99		
80	Verpackung, Transport	100.00%	100.00%	100.00%	20.00	19.00	19.00				0.20	0.18	98	99		

Summary

3,995.00 3,909.00 4,032.00 135.00 124.00 38.00 29.25 37.00 796 793 2

Possibility to view the data of various projects including associated orders. Predefined parameters allow for custom-specific project data evaluation. The drill-down functionality allows to refine the display and view various key figures.



Navigation

Organisation unit: Start-System-Data-Anforder-Global-actives
Global settings: Global settings

PDC structure: 4000 | Betriebsdatenerfassung | BDE

Filter

Time range: Current year
From: 01/01/2023 To: 12/31/2023

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10	Material bereitstellen	93.02%	100.00%	93.02%	40.00	43.00	43.00				0.40	0.43	100	100		
20	Befehl drucken	91.32%	100.00%	96.83%	424.00	418.00	418.00	39.00		24.00	4.00	4.14	100	100		
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40	Bestückung bediente Bauteile	96.34%	100.00%	96.04%	501.00	515.00	515.00	10.00		9.00	5.00	5.19	100	100		
50	Sichtprüfung / Nachkühlen	100.00%	100.00%	100.00%	200.00	200.00	200.00						100	100		
60	In Circuit Test	95.09%	97.00%	96.62%	630.00	621.00	621.00	30.00		31.00	6.00	6.21	100	97	2	
70	Messung, Dokumentation	95.61%	100.00%	96.37%	823.00	797.00	820.00	25.00		23.00	8.00	8.13	98	99		
80	Verpackung, Transport	100.00%	100.00%	100.00%	20.00	19.00	19.00				0.20	0.18	98	99		

Cost centre patterns

ID	Name	DEE index	Quality rate	Effectiveness	TTT	HUT	PCT	PSUT	(ASUT)	TTU	APT	SB	PQ	GY	RQ	RUC
100	BDE Bestückung	93.07%	100.00%	96.77%	1,245.00	1,232.00	1,232.00	48.00		37.00	13.00	13.15	100	100		
200	BDE Bestückung	93.07%	100.00%	96.77%	1,245.00	1,232.00	1,232.00	48.00		37.00	13.00	13.15	100	100		

Cost centre pattern group

ID	Name	DEE index	Quality rate	Effectiveness	TTT	HUT	PCT	PSUT	(ASUT)	TTU	APT	SB	PQ	GY	RQ	RUC
100	BDE Bestückung	93.07%	100.00%	96.77%	1,245.00	1,232.00	1,232.00	48.00		37.00	13.00	13.15	100	100		
200	BDE Bestückung	93.07%	100.00%	96.77%	1,245.00	1,232.00	1,232.00	48.00		37.00	13.00	13.15	100	100		

Summary

3,995.00 3,909.00 4,032.00 135.00 124.00 38.00 29.25 37.00 796 793 2

Based on different, previously defined order parameters, productivity-related key figures of individual positions (e. g. production lines) can be compared in a clear and targeted manner.

PDC INFORMATION

The PDC Information widget allows the user to refine the display of complex data sets. Besides different filter options, e. g. filtering by order, order position, cost centre, machine or employee, the drill-down functionality helps to break down multi-dimensional data by navigating from a broader level down to the next. This opens up the possibility to identify potential weak points and bottlenecks at an early stage and to take corrective measures in due time to improve operational performance and efficiency.

KPI DETERMINATION

Thanks to the automatic determination of MES key figures, you have access to key performance indicators (KPI) at any time without cumbersome calculations. By evaluating meaningful key figures, the progress or degree of fulfilment of your orders and projects becomes measurable.

Key figures serve as a basis for decisions, analyses or objective comparisons between different organisation units, departments, cost centres or production lines. They allow you to identify weak points and to improve processes and operational efficiency.



COST AND ACTIVITY MONITORING BENEFITS OF USING PDC

ZEUS® JOB COSTING FOR COST AND ACTIVITY MONITORING

ZEUS® Job Costing is a professional solution that automates data collection and time evaluation for all those who want to record attendance times or track productive times for products and services outside of industrial production. With regard to data evaluation and data transfer to subsequent processing systems, ZEUS® Job Costing offers you the same analytical and communication options as ZEUS® PDC.

ZEUS® Job Costing enables building yards, technical services as well as public authorities in automating and digitalising their data recording processes. Additionally, it is ideally suited for all businesses providing their services on site or for employees working on their projects from home. Tedious and time consuming manual workload is efficiently replaced by automated service-related time recording, time allocation and data evaluation.

With ZEUS® offering a wide range of tested interfaces, job costing data can be reliably transferred to other accounting and financial controlling solutions.

ZEUS® JOB COSTING IN PUBLIC ADMINISTRATION

ZEUS® Job Costing enables the automatic allocation of employee attendance times to cost centres, projects or activities, either in full or as a percentage.

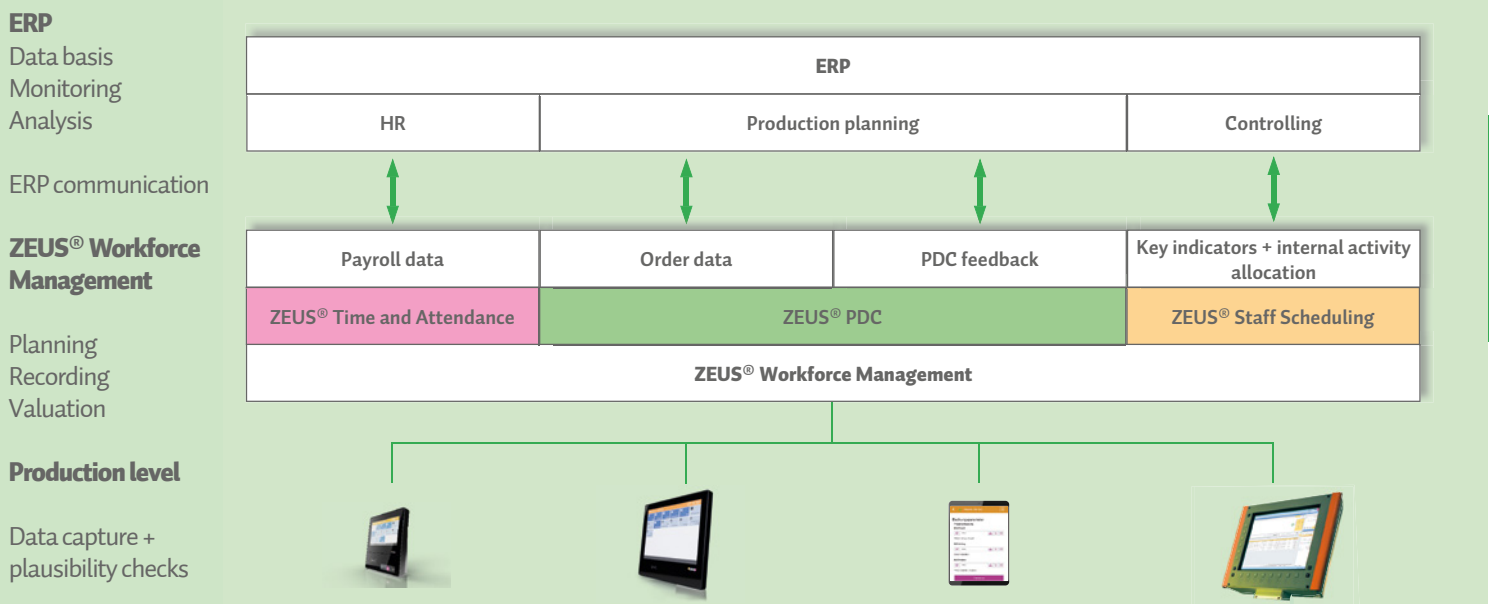
If only part of the working time is distributed automatically, ZEUS® Job Costing lists the remaining non-allocated hours in a clear and transparent way. At a later stage, the remaining time can be manually allocated to the corresponding activities or products via the web terminal or mobile device.



YOUR BENEFITS WITH ZEUS® PRODUCTION DATA CAPTURE

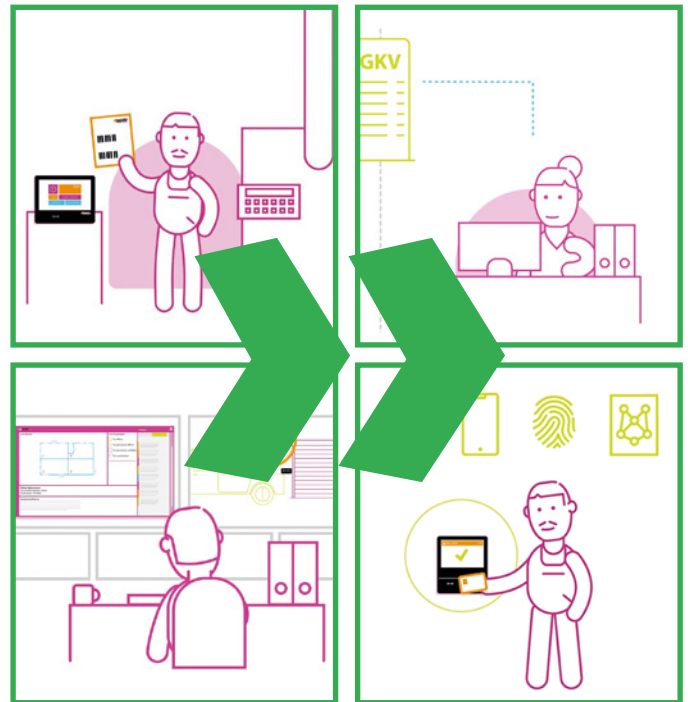
- » ZEUS® PDC creates transparency and supports you in establishing structured operational sequences and production processes.
- » ISGUS offers all options required for stationary or mobile data capture and provides real added value expanding digitalisation right down to the data recording level in the manufacturing area.
- » The automated collection of operational data ensures the availability of an up-to-date and valid database required to efficiently control and manage production processes.
- » Detailed information about the current order status, busy times, run and idle times, good yield and rejects quantities, and much more is available at a glance.
- » Automated KPI determination combined with objective key figure analysis and comparison allow for continuous optimisation of operational sequences and production processes.
- » The highly flexible and parameterisable ISGUS solution allows to meet individual specifications and customer-specific requirements.
- » State-of-the-art interface technology ensures seamless connectivity with any ERP/MMS solution.
- » ZEUS® Workforce Management allows you to combine HR management, time recording, production data capture, workforce scheduling and corporate security using the latest web technology while ensuring GDPR compliant data management.
- » ZEUS® Workforce Management is available either as an on-premise solution or as a Software as a Service (SaaS) solution hosted in the ISGUS Cloud.

PDC IN THE IT SOLUTION ENVIRONMENT:



DISCOVER THE FEATURES OF ZEUS® WORKFORCE MANAGEMENT IN OUR SHORT VIDEO CLIPS

Workforce Management is on everyone's lips. Whether start-up, medium-sized business or large corporation – companies consistently rely on digital tools for managing HR, time recording, staff scheduling or production data capture. Modern Workforce Management ensures a sustainable increase in effectiveness and productivity. Thanks to its custom scalability, ZEUS® Workforce Management guarantees long-term business success while improving competitiveness.



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