COSMO CONSULT
Business-Software for People

Business Software for People

cc|factury data capture (fdc)

QUANTITY DATA
PRODUCTION
TIME DATA
ORDER PACKAGES
TARGET/ACTUAL COMPARISONS
WORK AREAS
JOBS
TERMINAL RECORDING
PERSONNEL DATA
SERVICE
COLLECTIVE ORDERS
CLOCKING
STATUS DATA
BREAK MODELS
PROCESS DATA
ASSEMBLY
POSTING AUTHORISATIONS
FACTURY DATA CAPTURE (FDC)
HUMAN RESOURCES
SHIFT STRUCTURES
ORDER DATA
VARIABLE RECORDING FIELDS

Microsoft Partner
Gold Enterprise Resource Planning

COMPANY PROFILE

COSMO CONSULT specialises in the implementation and system management of **industry and business solutions** based on cutting-edge software technologies. We deliver industry-oriented complete solutions for midsize businesses in the manufacturing, service and retail industries by providing an extensive range of industry-specific and special solutions based on **Microsoft Dynamics** and **QlikView**.

We offer our customers over 18 years of national and international project experience in the implementation of **Microsoft Dynamics NAV** (previously Navision) and **Microsoft Dynamics AX** (previously Axapta) ERP solutions. We are also experts in the **Microsoft Dynamics CRM** customer relationship management system and the **Microsoft SharePoint** document management and portal system, which can be integrated seamlessly into the ERP system environment. We therefore deliver fully integrated software systems for use in all areas of the company. With the aid of the **QlikView business intelligence solution**, our customers are able to access all of their company data in a structured and manageable format at any time.

An **implementation method** tailored to the project is a prerequisite for successful software implementation. For over 15 years, we have placed our trust in proven implementation methods when implementing our software projects, such as **SureStep** for successful ERP project implementation and the **agile implementation methodology** for rapid results when realising business intelligence (BI) projects.

At COSMO CONSULT, people are our focus. After all, it is people who decide whether our software is efficient or inefficient, who judge its strengths and weaknesses, who experience joy or frustration when using it and ultimately determine if it is a success. That's why we provide:

Business Software for People

cc|factury data capture (fdc)

For greater transparency in working processes

Be it manufacturing, project work, services or assembly, requirements such as continual transparency of the workflow, material flow and value flow are difficult to meet without good factury data capture (FDC). Companies often find they are lacking targets or setpoints, but feedback shows that it is predominantly actual values that are either absent or only partially documented due to insufficient recording tools. This makes effective controlling either difficult or almost impossible.

cc|fdc creates the necessary reference values, documents the entire actual process and enables costs and times to be allocated to an order precisely. This enables quantities and times to be subjected to various variance analyses and target/actual comparisons at both order and product level. cc|fdc therefore helps you to control, monitor and optimise your processes.

COSMO CONSULT has years of experience in developing and implementing timekeeping systems. We advise and support you in the creation of a company-specific FDC concept and the implementation of a FDC system to fulfil your requirements.

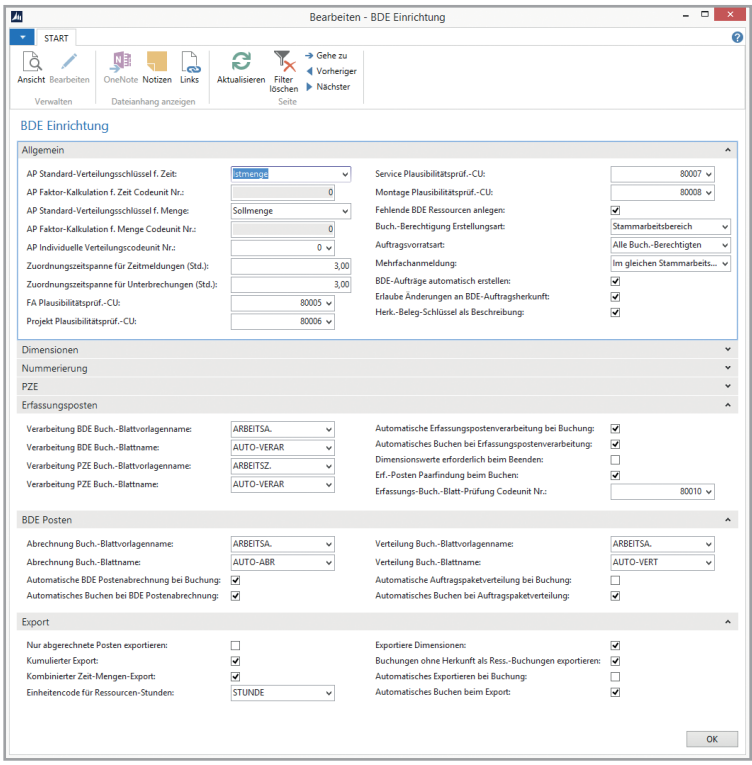
INTEGRATION INTO ALL RELEVANT MICROSOFT DYNAMICS NAV MODULES

cc|fdc offers fully automated integration into all relevant Microsoft Dynamics NAV modules (available in real time as an option), i.e.:

- The deliberately simple data on times, quantities and status recorded using cc|fdc goes through plausibility checks and highly effective export routines to ensure that there are no conflicts before being posted direct to the partly complex ERP environment.
- Additional postings to the relevant modules are not necessary.

Particular highlights:

- Optional cumulative export of times and quantities (grouping of values to reduce the number of items)
- Optimum processing of cancellation postings
- Transfer of item tracking details (serial/batch numbers) for production items and consumables
- Configurable transfer of Microsoft Dynamics NAV standard dimensions



CC|FDC SET-UP

SUPPORTED MICROSOFT DYNAMICS NAV STANDARD MODULES:

- **Production orders**
  Used to record, post and analyse actual messages and consumption, i.e., the quantities of items produced, the times of the work steps, status information on the work steps and component consumption.

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- **Jobs**
  Used to record, post and analyse project times, project quantities and project consumption.
  (For project-based production companies and project service providers).

- **Service orders**
  Used to record, post and analyse service times and consumption.

- **Assembly orders (as of Microsoft Dynamics NAV)**
  The assembly-orders function in Microsoft Dynamics NAV is used to assemble or process sets. Assembly orders are ideal for simple production companies, wholesalers and individual retailers where the production process

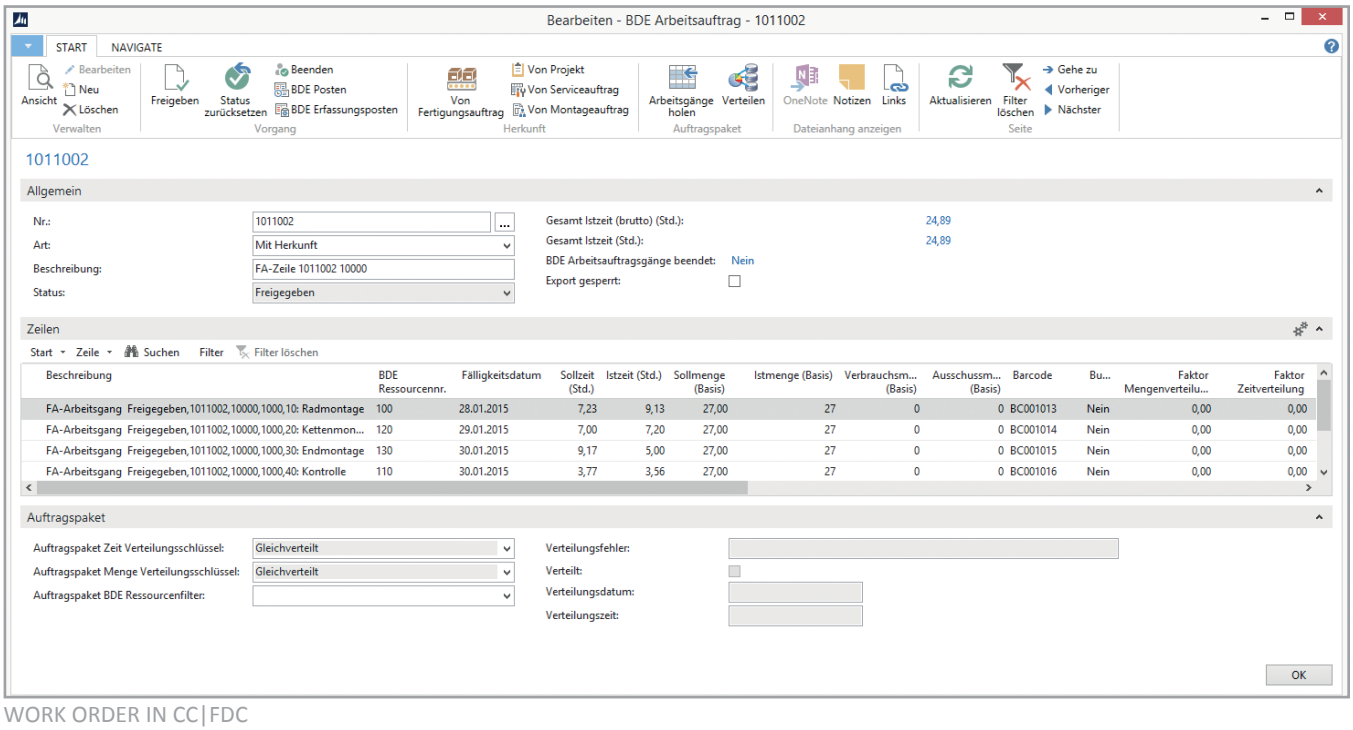
  - Is part of the warehouse process
  - Is short and only involves a few simple work steps
  - Only needs to be recorded in the ERP system with minimal set-up and training (without implementation of the production module)

- **Resource journal**
  - Used to record, post and analyse resource times.
  - Using costing (i.e. internal set-offs and allocations), this export version enables you to determine effective operating costs.
  - Analysis of costs per cost centre and cost unit, e.g., to create reliable bases for calculation.

- **Human resources**
  - For using employee data

PROPRIETARY ORDER MODULE FOR WORK ORDERS

FDC work orders represent the original records for the supported Microsoft Dynamics NAV standard modules (e.g. production orders from the production module). They can be created manually via the pull principle or automatically via the push principle, i.e.:



WORK ORDER IN CC|FDC

- Either the original records relevant for product data acquisition are pulled into FDC work orders, or
- When a new original record is created, the FDC work order appears automatically

It is also possible to represent overheads orders using FDC work orders.

The required barcodes can be printed directly onto the work slip of the original record or onto the FDC work order slip.

Original records with a FDC work order are write-protected; a feature that would normally be controlled through the change-protocol function. However, it is not necessary to activate the change protocol and the relevant tables, leaving the change protocol free for other purposes.

ORDER PACKAGES FOR COLLECTIVE ORDERS OR MULTIPLE MACHINE OPERATION

If an employee only works on one order or operates just one machine, it is always clear how the recorded times must be allocated. When operating multiple machines or processing collective orders, it is not possible to allocate the times without further processing. Configurable order packages in cc|fdc assist with this task.

In cc|fdc, employees can clock or post multiple orders at the same time. The "order packages" are created prior to this. The program determines and distributes the actual times and/or actual quantities to the individual orders based on a number of factors, such as the setpoint (prescribed) time. Settled order packages can be resettled at any time.

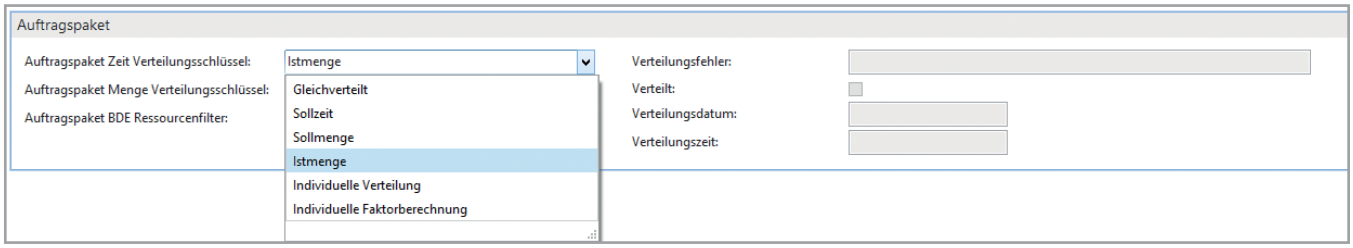
The distribution options available meet virtually all requirements in practice. Individual distribution or factor calculation are available for special requirements.

VARIABLE RECORDING FIELDS USING FDC-DIMENSIONS

As well as utilising the regular dimension structure of Microsoft Dynamics NAV, cc|fdc offers its own FDC dimension structure. This makes it possible to report company-specific data/entries beyond the input required for the posting. So, for example, users can also input event codes, quality indicators, machine data and/or process parameters for each posting and then analyse them later. The reliability of FDC dimension values can also be managed using the individual FDC resource and/or the FDC work order. If reliable FDC dimension values are stored in both locations, the intersection for corresponding transactions is reliable.

POSTING AUTHORISATIONS

The reliability of postings can be controlled by means of the FDC resource, the FDC working area and/or the FDC work order. If posting authorisations are stored in all locations, then the intersection of authorisations for corresponding transactions is valid.



TAB FOR THE ORDER PACKAGE IN THE PDA WORK ORDER

SIMPLE TIME AND ATTENDANCE

cc|fdc features its own (simple) time and attendance function for two important reasons:

a) Time and attendance postings can be recorded in cc|fdc and exported to other modules, providing a standardised recording interface. cc|fdc supports the recording of the following time and attendance data: arrival, departure, breaks and unscheduled downtime.
b) Time and attendance postings from other modules can be imported into cc|fdc. This makes it possible to integrate another time and attendance system. An attendance/absence record can then be generated for the FDC input on the basis of the time and attendance data (despite the use of different systems). Time and attendance can also be compared with the FDC order time.

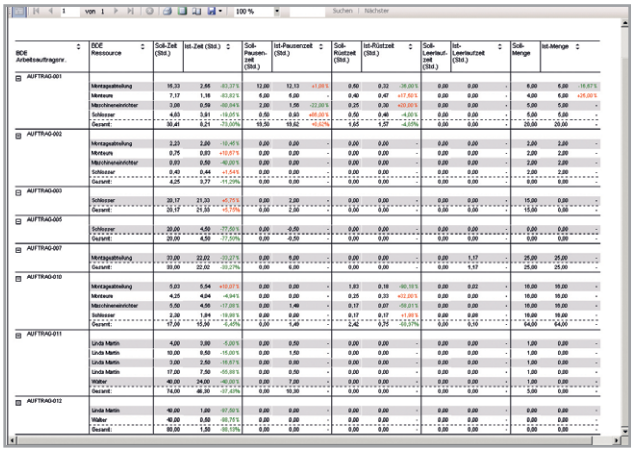
INTEGRATION OF VARIOUS TIME AND ATTENDANCE SYSTEMS

cc|fdc has various options, principles and adapters to enable interfaces (SQL tables, Web services etc.) for connection to other time and attendance systems.

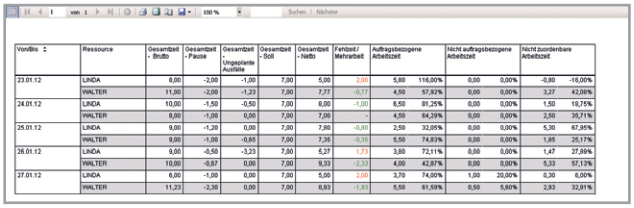
Various interfaces are already in place and ready for use as required — please just ask.

REPORTING AND ANALYSIS

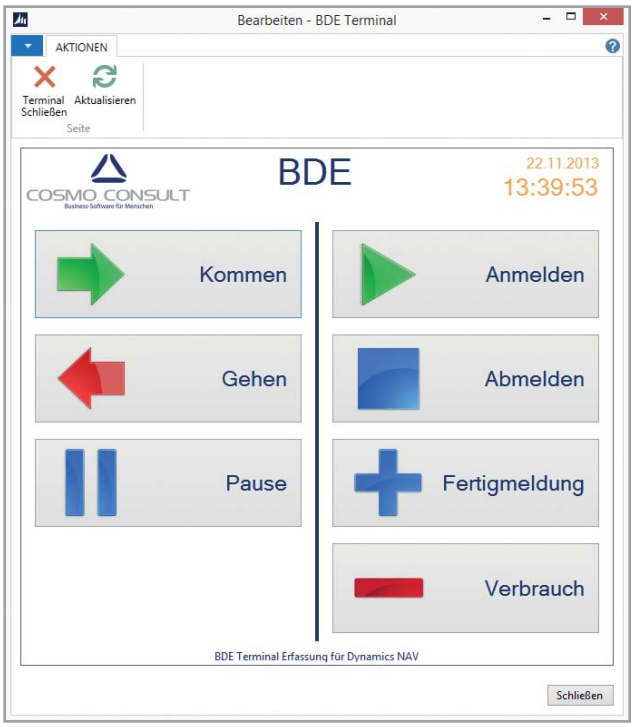
With all the data gathered, an extensive range of diagrams and tables are at your disposal for analysis. The data can be correlated and analysed using various factors. Meaningful and typical KPIs (e.g., OEE) enable internal comparisons.



CC|PDA ACTUAL/TARGET COMPARISON



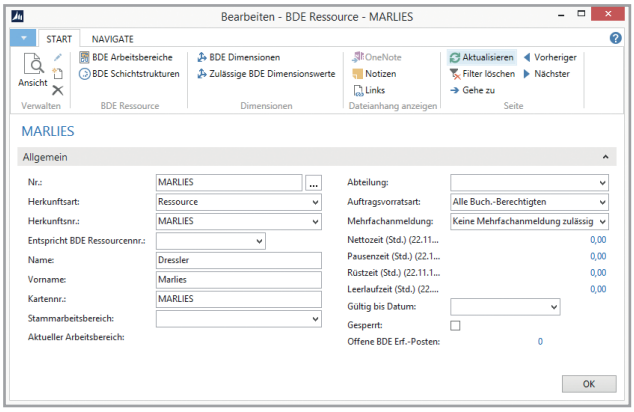
CC|PDA EMPLOYEE STATISTICS



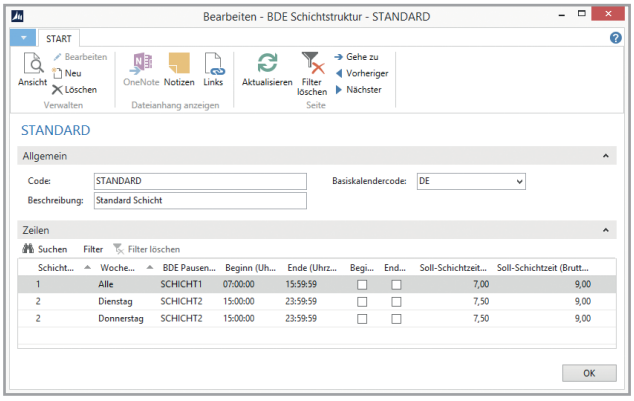
CC|PDA TERMINAL

HIGHLIGHTS

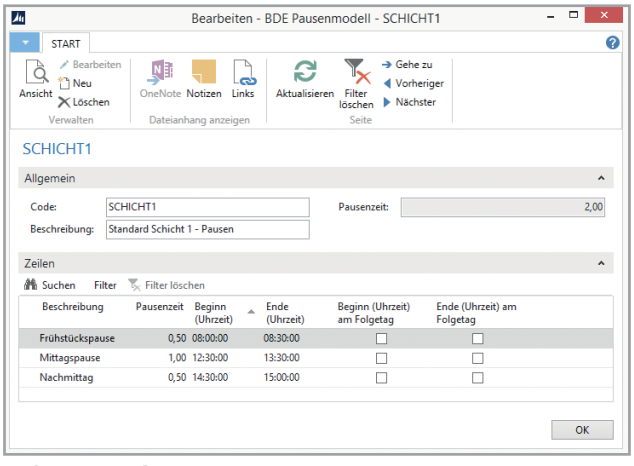
- Use of production data acquisition in Microsoft Dynamics NAV
- Various terminal recording screens (touch screen-optimised)
- Expansion option for recording via remote scanner — mobile data acquisition (MDA) (MDE process dialogs for FDC delivery scope of cc|mobile solution)
- Expansion option of a configurable barcode management module to define/set up and analyse barcodes (in the delivery scope of cc|mobile solution)
- Easy to use with stable, error-resistant processing
- Graduated configuration of automation right through to real-time processing: You decide whether the recorded data is settled and/or transferred periodically, cumulatively or in real time
- Switching between work areas (cost centres)
- Various posting options: Clocking — posting recorded data (time and attendance and production data acquisition), result values — posting FDC data and posting time and attendance data
- Management of work areas, shift structures, break models and posting authorisations
- Recording as much additional data as you like through the FDC dimensions, which, for example, can also be used for recording codes (with or without limitation of reliability)
- When recording quantities for manufactured or consumed items, all units and item tracking settings are supported from the item master
- Display of the order pool (by work area) with selection option for posting



CC|FDC RESOURCE



FDC SHIFT STRUCTURE



FDC BREAK MODEL

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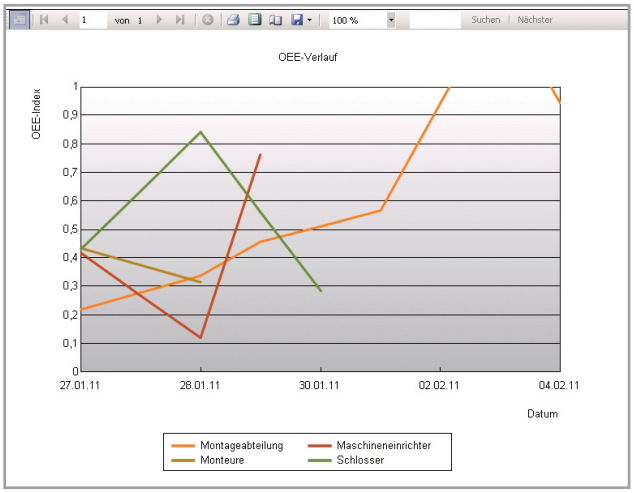
For greater transparency in working processes

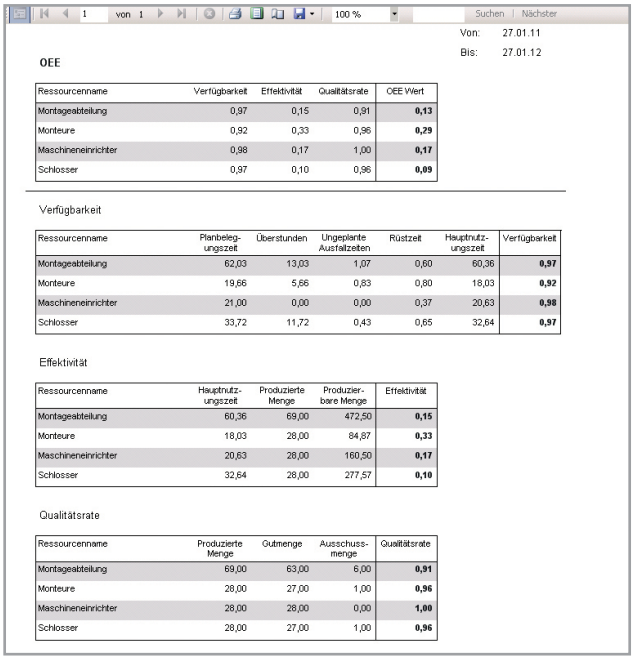
- Integrated processing requests to take company specifics into account simply such as special restrictions or out-of-the-ordinary calculations

SUCCESS FACTORS AND RELIABILITY

- **Process security**
  - Production of process transparency
  - Recording of incidents and warnings
  - Order (progress) tracking
  - Use of overheads orders
  - Recording of unscheduled activities
  - Recording of set-up times and waiting times
- **Stock reliability**
  - Complete recording of incoming/outgoing materials with order reference, cost-centre reference and/or cost-unit reference
  - Recording of unscheduled incoming/outgoing of materials
  - Recording of reject quantities/deficiencies at all production stages
- **Investment reliability**
  - Certified and fully integrated expansion for Microsoft Dynamics NAV
  - Constant further development and comprehensive support
  - cc|fdc is future-proof, scalable and flexible



CC|FDC OEE CHART



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Bis: 27.01.12

OEE

Ressourcenname	Verfügbarkeit	Effektivität	Qualitätsrate	OEE Wert
Montageabteilung	0,97	0,15	0,91	**0,13**
Monteure	0,92	0,33	0,96	**0,29**
Maschineneinrichter	0,98	0,17	1,00	**0,17**
Schlosser	0,97	0,10	0,96	**0,09**

Verfügbarkeit

Ressourcenname	Planbeleg-ungszeit	Überstunden	Ungeplante Ausfallzeiten	Rüstzeit	Hauptnutz-ungszeit	Verfügbarkeit
Montageabteilung	62,03	13,03	1,07	0,60	60,36	**0,97**
Monteure	19,66	5,66	0,83	0,80	18,03	**0,92**
Maschineneinrichter	21,00	0,00	0,00	0,37	20,63	**0,98**
Schlosser	33,72	11,72	0,43	0,65	32,64	**0,97**

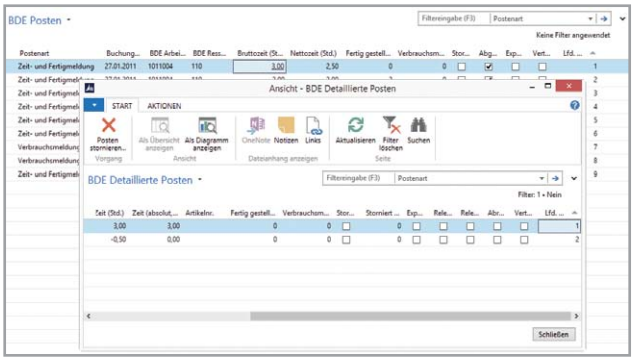
Effektivität

Ressourcenname	Hauptnutz-ungszeit	Produzierte Menge	Produzier-bare Menge	Effektivität
Montageabteilung	60,36	69,00	472,50	**0,15**
Monteure	18,03	28,00	84,87	**0,33**
Maschineneinrichter	20,63	28,00	160,50	**0,17**
Schlosser	32,64	28,00	277,57	**0,10**

Qualitätsrate

Ressourcenname	Produzierte Menge	Gutmenge	Ausschuss-menge	Qualitätsrate
Montageabteilung	69,00	63,00	6,00	**0,91**
Monteure	28,00	27,00	1,00	**0,96**
Maschineneinrichter	28,00	28,00	0,00	**1,00**
Schlosser	28,00	27,00	1,00	**0,96**

CC|FDC OEE ANALYSIS



CC|FDC ITEMS

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Space for your own notes

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