



FEATURES AND FUNCTIONS

ABAS ERP 21

ABAS ERP 21.1
(SERVICE PACK)

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ABAS ERP 21 + ABAS ERP 21.1 (SERVICE PACK)

All the following features/functions represent the general standard release.¹

1. ADMINISTRATION/SYSTEM

1.1 User interfaces

The Windows client is available as the user interface for abas ERP².

Display

- › Display of fields, tables, tree structures, images, and symbols
- › Embedded browser for inline display of websites, PDFs, films, graphs and dashboards
- › Configurable command overview: working group pages and start page in the embedded browser
- › Visualization of read-only fields
- › Visualization of mandatory fields
- › Highlight fields and table rows using custom field and text colors
- › Display and hide screen pages, header fields, and table columns based on context and/or user
- › Multi-monitor support
- › Program icon and logo adjustable to differentiate multiple clients
- › abas ERP 21.1 (Service Pack): Graphic editor for creating formatted texts (free text editor)

Operation

- › All functions can be used via mouse or keyboard
- › Follow references via mouse click or keyboard
- › Open documents in appropriate default program, e.g., Microsoft Office files, CAD files, image files, PDFs
- › Copy & Paste field content to other fields or external programs
- › Export table content via copy & paste or drag & drop, e.g., to Microsoft Excel
- › Load objects from the object selection via drag & drop into screens that have already been opened
- › Copy object references from the object selection to table fields
- › Drag & Drop file names from third-party programs to file reference fields
- › Connections to third-party programs, e.g., Microsoft Outlook or telephony software
- › Online Help

¹ The functions that are only available in abas ERP 21.1 (Service Pack) are marked with the comment "abas ERP 21.1 (Service Pack)".

² Additionally, the browser-based interface "Web Client" is available as a cloud service. See Add-ons

User-specific settings

- › Operating language
- › Screen font and font size
- › Save and restore screen and splinter items
- › Fix table columns
- › Change the column order of tables
- › Automatic width adjustment of table columns
- › Two-color display of table rows
- › Personal command overview
- › Autostart of screens, infosystems, and commands after logging in
- › Command and object history

Availability

- › Available for Microsoft Windows
- › Independent of abas ERP version used
- › Monthly upgrades with error corrections and improvements

1.2 Authentication and authorization

Authentication

- › Single sign-on (SSO) with Keycloak as OpenID Connect provider
- › Active Directory or LDAP connection possible

Authorization

- › User and role-based permissions management
- › User and role-specific menus
- › Fine-grain access control down to the field level (read, write)
- › Permissions are expandable for individual, automated transactions

1.3 Languages

General

- › Supported languages in the standard release: German and English
- › abas ERP and the corresponding documentation/Online Help are available in these languages.

1.4 Printing

Print methods are assigned to each screen and can be configured, if required.

General

- › All documents can be printed to the monitor screen (preview)
- › Support for network and terminal printers
- › Automated generation of print layouts for screens and infosystems
- › Optional graphic tool for JasperReports (TIBCO Jaspersoft® Studio (open source) can be used to edit and create JasperReport layouts)
- › Custom adjustments to print layouts possible
- › Printing in the background
- › Print collective layouts
- › Document printouts in different languages
- › Address printouts in UPU format
- › Unicode to support printing all characters currently used worldwide
- › Integration of graphics and barcodes
- › Print output as an email directly from the print dialog
- › Read/Receipt confirmation and adoption of the Outlook signature in the email for email distribution via Outlook
- › Connection to archiving software
- › Configurable templates for infosystem layout generation

Print output

Print output is generated using various printing methods:

- › PDF documents
- › FO-compatibility channel: expansion to incorporate external documents
- › JasperReports
- › Print output of the displayed screen
- › XML data
- › Browser
- › Microsoft Excel

2. MASTER FILES

Basic master files

- > Customers/Customer contacts
- > Prospects/Prospect contacts
- > Employees
- > Vendors/Vendor contacts
- > Base product
- > Products
- > Product ranges
- > Production lists
- > Means of production
- > Supplementary items
- > Services
- > Service BOMs
- > Operations
- > Work centers/Departments
- > Accounts
- > Cost centers/Cost objects
- > Cost element ranges
- > Cost allocator
- > Cost types/Cost type ranges
- > Tax codes/Tax rules/Process tax rules
- > Process tax configurations
- > Account change
- > Invoicing
- > Short texts (delivery terms, salutations, Incoterms, etc.)
- > Materials
- > Overheads
- > Terms of payment
- > Payment distributor
- > Standard account assignment
- > Company data
- > Passwords/Rights/Workspaces
- > Wage groups
- > Currencies/Exchange rates
- > Material surcharges
- > Regions/Countries/Economic areas
- > Address formats
- > Daily schedules
- > Shift schedules
- > Material groups/Product groups
- > Units
- > Fixed assets
- > Depreciation methods
- > Depreciation suggestions
- > Warehouse groups/Warehouses/Storage locations
- > Warehouse group properties
- > Relocation properties
- > Lots/Serial numbers
- > Reminder terms
- > SEPA direct debit mandates
- > Credit lines
- > Cost center assessments
- > Cost object monthly and annual assessments
- > Account ranges/Subledger account ranges
- > Production account group
- > Liquidity planning scenarios
- > Corridor Controlling P&L
- > Corridor Controlling balance sheet
- > Free fiscal year/Free annual trend
- > Sets of books/Configuration
- > Prices/Discounts
- > Vouchers
- > Commission
- > Affiliated companies
- > Group structure
- > Group data exchange
- > Group data history
- > Consolidation groups/Consolidation configuration
- > Banks/Bank details
- > Packing instructions
- > Addresses
- > Fiscal year management
- > Period patterns
- > Planning periods
- > Calendar cycles
- > Planning units
- > Sales/Revenue planning
- > Requirements planning units
- > Rolling plans
- > Number ranges
- > Number range mapping

- › Number counter
- › Version counter
- › Sequence descriptions
- › Sequence statuses
- › Scheduling calendar
- › Manage available capacities
- › Containers
- › Layout/Collective layouts/Parameter layouts/Layout lists
- › Paper formats
- › Printers/Printer lists
- › Spoolers
- › Print distributors/Print allocators
- › Print settings
- › Foreign language configuration
- › Object lock/Lock configuration
- › Call parameters/Call parameter list

Product administration

- › Product versioning
- › Multi-level production lists
- › Various types/versions of production lists
- › Surcharge product administration and assignment
- › Manual and automatic costing
- › Alternative product administration
- › Accessories administration
- › Product descriptions, sales and purchasing texts in any language
- › Quantity conversion list per product
- › Automatic display of historical and statistical data
- › Unrestricted serial number and lot management
- › Variant product administration
- › Set product administration

Address administration

- › Customers, vendors, prospects, employees, representatives
- › Any number of contact persons and delivery addresses/unloading points

Prices and discounts

- › Price and discount scales
- › Flat-rate prices
- › Group prices/discounts
- › Chain discounts
- › Selective display of established discounts in the purchasing/sales process
- › Special offers
- › Rounding factors and surcharges
- › Gross/Net prices
- › Price and discount groups by customer/vendor or product
- › Validity period control for prices/discounts
- › Central administration of recorded prices and discounts
- › Pricing from price lists (quantity dependent and independent)
- › Pricing for individual purchasing and sales items or defined groups

Evaluations/Reports

- > Change history log
- > Customer and contact overview
- > Vendor and contact overview
- > Contact options
- > Address monitor
- > Exclusion list checks
- > Product overview
- > Product range hierarchy
- > Product range where-used list
- > Customer product relations
- > Single-level BOM
- > Multi-level BOM
- > Product where-used list
- > Product replacement
- > Price/Discount overview
- > Commission overview
- > Vendor terms and conditions overview
- > Exchange rate history
- > Bank/Bank details overview
- > VAT registration number validation
- > Permissions
- > Permission where-used list
- > Economic area structure
- > Packaging material plausibility check
- > Calendar hierarchy
- > Calendar where-used list
- > Calendar information
- > Material/Product group overview
- > Printer overview
- > Spooler overview

3. STANDARD PROCESSES

3.1 Sales

General

- › Sidebar in process screens: collapsible/expandable, with information about the process (e.g., tasks, notes, workflows³) and active processes of the entered contact

Opportunities

- › Manage opportunities: create, print, lock/unlock, and file
- › Three addresses per process (contact, invoice recipient, and goods recipient)
- › Validity period of the opportunity
- › Planned sales order date
- › Quotation probability
- › Rejection reason
- › Review period/date
- › Can be recorded with or without product items

Quotations

- › Manage quotations: create (record directly or generate from opportunities), print, lock/unlock, and file
- › Three addresses per process (contact, invoice recipient, and goods recipient)
- › Validity period of the quotation
- › Planned sales order date
- › Sales order probability
- › Rejection reason
- › Review period/date
- › Specify various conditions, such as warranty, delivery terms, terms of payment, shipping type, etc.
- › Texts of any length in the process header and for each process item
- › Transaction currency with exchange rate
- › Price/Discount determination
- › Commission determination
- › Alternative items
- › Flexible subtotals
- › Project allocation
- › Quotation production list per process item
- › Quotation preliminary costing with option to write back the costing results in the corresponding process items

Standard dashboards

- › Sales workstation: Task overview, Notes overview, Customer file
- › Prospect file
- › Customer file
- › Product file

³ in combination with abas BPM Toolkit

Evaluations/Reports

- › Sales pipeline
- › Rejection reason occurrences
- › Sales center
- › Customer information center
- › Process chain/Document flow
- › Outstanding quotations
- › Preliminary costing overview
- › Preliminary costing sheet
- › Item chain

3.2 Sales planning

General

- › Company-wide preview of future sales and requirements
- › Manual planning or planning based on historical data using forecast methods (median value, linear regression, exponential smoothing)
- › Plan finished products or components
- › Flexible planning periods: day, week, month, quarter, and year or free selection of periods
- › Flexible determination of the planning time segments for the rolling plan
- › Selective scheduling relevance for a sales plan (scheduling generates procurement suggestions based on planning data offset by existing deliveries and fixed sales orders)
- › Integrated revenue planning using sales plan prices

Planning levels

- › Individual products or product groups
- › Differentiated according to warehouse group
- › Differentiated for individual customers or customer groups

Evaluations/Reports

- › Representation of the planning hierarchies
- › Planned sales quantities overview
- › Planned revenue overview
- › Planned/Actual comparison for sales and revenue
- › MPS analysis

3.3 Sales order processing

General

- › Convert prospects and the corresponding contacts to customers and contacts
- › Sidebar in process screens: collapsible/expandable, with information about the process (e.g., tasks, notes, workflows⁴) and active processes of the entered contact

Blanket orders

- › Manage blanket orders (contracts, agreements): Create, print, lock/unlock, cancel, and file
- › Quantities from blanket orders can optionally be considered as announced receipts
- › Three addresses per process (customer, invoice recipient, and goods recipient)
- › Review period/date
- › Final country of destination
- › Specify various conditions, such as warranty, delivery terms, terms of payment, shipping type, maximum available quantity, immediately available quantity, etc.
- › Texts of any length in the process header and for each process item
- › Transaction currency with exchange rate
- › Price/Discount determination
- › Commission determination
- › Flexible subtotals
- › Project allocation
- › Production list for each process item
- › Preliminary costing with option to write back the costing results to the corresponding process items
- › Monitor blanket orders as well as their prices, quantities, and validity periods
- › Key figures on the call-off and delivery progress of the blanket order
- › Control packing slip/invoice relevance of process items
- › Definition of customers' packaging material guidelines

Sales orders

- › Manage sales orders: create (directly or from quotations/blanket orders), print, lock/unlock, cancel, and file
- › Create collective sales orders
- › Three addresses per process (customer, invoice recipient, and goods recipient)
- › Final country of destination
- › Differing invoice recipient
- › Review period/date
- › Specify various conditions, such as warranty, delivery terms, terms of payment, method of payment, shipping type, etc.
- › Assign a billing plan to manage planned invoices and planned downpayments incl. taking downpayment-specific information into account in the global liquidity planning
- › Texts of any length in the process header and for each process item

⁴ in combination with abas BPM Toolkit

- › Transaction currency with exchange rate
- › Price/Discount determination
- › Commission determination
- › Alternative items
- › Flexible subtotals
- › Project allocation
- › Order production list for each process item
- › Sales order preliminary costing with option to write back the costing results in the corresponding process items
- › Material requirements planning and date scheduling
- › Allocation to blanket orders
- › Voucher codes
- › Allocation of cost centers/cost objects
- › Control packing slip/invoice relevance of process items
- › Manage material allocations for each process item
- › Availability check for minimum stock level and requirement related products
- › Packaging material planning
- › Make-or-buy: change the procurement mode in the sales order item

Shipping planning

- › Create and manage complete, partial, remaining, and collective deliveries
- › Select and group delivery items according to different criteria
- › Split sales order items in shipping planning (partial deliveries)
- › Packaging material calculation: Automatic determination of required packaging material according to packing instructions
- › Edit the packing instructions
- › Packaging material structure suggestions
- › Automatic assignment of package numbers
- › Generate shipping notices and shipping suggestion lists
- › Generate shipping papers such as packing slips, shipping orders, package labels, bills of lading, shipping labels, material tags, Global Transport Label, transport and shipment documents
- › Create packing slips and shipping orders
- › Create collective packing slips and collective shipping orders
- › Subsequent editing of previously created packing slips
- › Query and analyze outstanding deliveries
- › Route planning
- › Availability check
- › Load and save shipping plans
- › Automatic posting in warehouse
- › Relocation to other warehouses
- › Picking lists
- › Backlog management
- › Gross/Net weight calculation

Packing slips

- › Manage packing slips: create (directly or from sales orders/suggestion lists), print, lock/unlock, post, cancel, and file
- › Create partial and collective packing slips
- › Create relocation packing slips
- › Three addresses per process (customer, invoice recipient, and goods recipient)
- › Final country of destination
- › Differing invoice recipient
- › Specify various conditions, such as warranty, delivery terms, terms of payment, method of payment, shipping type, etc.
- › Texts of any length in the process header and for each process item
- › Project allocation
- › Control invoice relevance of process items
- › Manage material allocations for each process item
- › Assign lots/serial numbers for each process item
- › Packaging material management/calculation
- › Edit the packing instructions
- › Automatic assignment of package numbers
- › Gross/Net weight calculation
- › Assign service products
- › Allocation to shipping orders
- › Posting in warehouse management
- › Returns management/Returns
- › Customer deliveries
- › Cancellations

Shipping orders

- › Create new shipping orders from shipping planning or a packing slip
- › Assign multiple packing slips that belong to the same delivery
- › Print shipping and forwarding documents
- › Distribution via EDI possible

Invoices

- › Manage invoices: create (directly or from sales orders/packing slips/suggestion lists), print, lock/unlock, post, cancel, and file
- › Infosystem for checking and posting invoices at a glance. Possibility to post specific invoices individually or several invoices at once.
- › Downpayment invoices and downpayment administration (requests for downpayments, final invoice)
- › Manage downpayments in the final invoice and choose from various statement options
- › Cash invoices (including posting in the warehouse and entries made into the cash account in financial accounting)
- › Pro forma invoices
- › Create single, partial and collective invoices
- › Credit notes and cancellations
- › Three addresses per process (customer, invoice recipient, and goods recipient)
- › Final country of destination
- › Differing invoice recipient
- › Document date, entry date, and fixed value date
- › Specify various conditions, such as warranty, delivery terms, terms of payment, method of payment, shipping type, etc.
- › Texts of any length in the process header and for each process item

- › Transaction currency with exchange rate
- › Project allocation
- › Consideration of all types of supplementary costs
- › Flexible subtotals
- › Assign service products
- › Allocation of cost centers/cost objects
- › Manage material allocations for each process item
- › Assign lots/serial numbers for each process item
- › Price/Discount determination
- › Commission determination
- › Tax determination
- › Automatic account assignment
- › Posting in financial accounting and warehouse management
- › Logging in journals

Returns management

- › Returns
- › Credit notes/Value credit notes
- › Reasons for returns

Goods traffic documents

- › Central administration of the request and return of entry certificates
- › Generate the electronic Intrastat reports for incoming and outgoing goods in a selected period
- › Support for export declaration using ATLAS

Standard dashboards

- › Sales order processing workstation: Task overview, Notes overview, Sales overview (processes)
- › Sales overview (processes)
- › Customer file
- › Product file

Evaluations/Reports

- › Sales center
- › Customer information center
- › Process chain/Document flow
- › Process locks
- › Outstanding quotations
- › Outstanding blanket orders
- › Outstanding sales orders
- › Outstanding deliveries
- › Outstanding invoices
- › Value of uninvoiced delivery items on a key date
- › Outgoing invoices list
- › Plan chart
- › Procurement status
- › Preliminary costing overview
- › Preliminary costing sheet
- › Item chain
- › Status of use
- › Returns center
- › Returns and reasons for returns

3.4 Purchasing

General

- › Manage, create and delete purchase order suggestions
- › Manage, create and delete subcontracting suggestions
- › Manage, create and delete relocation suggestions
- › Sidebar in process screens: collapsible/expandable, with information about the process (e.g., tasks, notes, workflows⁵) and active processes of the entered contact

Bidding processes

- › Manage bidding processes: create (directly or from purchase order suggestions/subcontracting suggestions), and file
- › Create requests for multiple vendors
- › Distribute the requests from a bidding process (collective print)
- › Overview of prices, dates and conditions for the individual request items of an active bidding process
- › Create purchase orders from requests
- › Automatic filing of the requests of a bidding process that did not lead to a purchase order

Requests

- › Manage requests: create (directly or from bidding processes), print, lock/unlock, and file
- › Two addresses per process (vendor and invoicing party)
- › Review period/date
- › Specify various conditions, such as warranty, delivery terms, terms of payment, shipping type, etc.
- › Texts of any length in the process header and for each process item
- › Transaction currency with exchange rate
- › Alternative items
- › Flexible subtotals
- › Project allocation

⁵ in combination with abas BPM Toolkit

Blanket orders

- › Manage blanket orders (contracts, agreements): create, print, lock/unlock, cancel, and file
- › Quantities from blanket orders can optionally be considered as announced receipts
- › Two addresses per process (vendor and invoicing party)
- › Review period/date
- › Original country of dispatch
- › Specify various conditions, such as warranty, delivery terms, terms of payment, shipping type, maximum available quantity, immediately available quantity, etc.
- › Texts of any length in the process header and for each process item
- › Transaction currency with exchange rate
- › Flexible subtotals
- › Project allocation
- › Monitor blanket orders as well as their prices, quantities, and validity periods
- › Key figures on the call-off and delivery progress of the blanket order
- › Control packing slip/invoice relevance of process items
- › Delivery time consideration in scheduling
- › Price history
- › Call-off and delivery history

Purchase orders

- › Manage purchase orders: create (directly or from purchase order suggestions/subcontracting suggestions/relocation suggestions/blanket orders/requests/service requests), print, lock/unlock, cancel, and file
- › Create collective purchase orders
- › Two addresses per process (vendor and invoicing party)
- › Original country of dispatch
- › Review period/date
- › Specify various conditions, such as warranty, delivery terms, terms of payment, method of payment, shipping type, etc.
- › Assign a billing plan to manage planned invoices and planned downpayments incl. taking downpayment-specific information into account in the global liquidity planning
- › Texts of any length in the process header and for each process item
- › Transaction currency with exchange rate
- › Price/Discount determination
- › Alternative items
- › Flexible subtotals
- › Project allocation
- › Production list for each process item
- › Material requirements planning and date scheduling
- › Allocation to blanket orders
- › Allocation to service requests
- › Allocation of cost centers/cost objects
- › Control packing slip/invoice relevance of process items
- › Manage material allocations for each process item
- › Manage material provided for each process item
- › Packaging material planning
- › Order confirmation reminders, delivery reminders

Packing slips

- › Manage packing slips: create (directly or from purchase orders/suggestion lists), print, lock/unlock, post, cancel, and file
- › Create partial and collective packing slips
- › Create relocation packing slips
- › Two addresses per process (vendor and invoicing party)
- › Original country of dispatch
- › Specify various conditions, such as warranty, delivery terms, terms of payment, method of payment, shipping type, etc.
- › Texts of any length in the process header and for each process item
- › Project allocation
- › Control invoice relevance of process items
- › Manage material allocations for each process item
- › Manage materials provided for each process item
- › Assign lots/serial numbers for each process item
- › Packaging material management/calculation
- › Posting in warehouse management

Invoices

- › Manage invoices: create (directly or from purchase orders/packing slips/suggestion lists), print, lock/unlock, post, cancel, and file
- › Infosystem for checking and posting invoices at a glance. Possibility to post specific invoices individually or several invoices at once.
- › Manage downpayments in the final invoice and choose from various statement options
- › Cash invoices (including posting in the warehouse and entries made into the cash account in financial accounting)
- › Create single, partial and collective invoices
- › Credit notes and cancellations
- › Two addresses per process (vendor and invoicing party)
- › Original country of dispatch
- › Document date, entry date, and fixed value date
- › Specify various conditions, such as warranty, delivery terms, terms of payment, method of payment, shipping type, etc.
- › Texts of any length in the process header and for each process item
- › Transaction currency with exchange rate
- › Project allocation
- › Consideration of all types of supplementary costs
- › Flexible subtotals
- › Allocation of cost centers/ cost objects
- › Manage material allocations for each process item
- › Manage material provided for each process item
- › Assign lots/serial numbers for each process item
- › Price/Discount determination
- › Tax determination
- › Automatic account assignment
- › Posting in financial accounting and warehouse management
- › Logging in journals
- › Cost allocator
- › Cost allocations (assign subsequent, additive costs, such as freight or customs)
- › Nullification of cost allocations, also item by item

Returns management

- › Returns
- › Credit notes/Value credit notes
- › Reasons for returns

Goods traffic documents

- › Generate the electronic Intrastat reports for incoming and outgoing goods in a selected period

Standard dashboards

- › Purchase order processing workstation: Task overview, Notes overview, Purchasing overview
- › Purchasing workstation: Task overview, Notes overview, Vendor file
- › Purchasing overview
- › Vendor file
- › Product file

Evaluations/Reports

- › Purchasing center
- › Vendor information center
- › Vendor terms and conditions
- › Process chain/Document flow
- › Process locks
- › Outstanding requests
- › Outstanding blanket orders
- › Outstanding purchase orders
- › Outstanding deliveries
- › Outstanding invoices
- › Outstanding order confirmations and deliveries
- › Value of uninvoiced delivery items on a key date
- › Returns center
- › Returns and reasons for returns
- › Received invoices list
- › Plan chart
- › Procurement status
- › Item chain
- › Status of use
- › Surplus procurements
- › Quantity of semifinished products and provided parts at vendor

3.5 Warehouse management

Warehouse structures

- › Warehouse hierarchy consisting of warehouse groups, warehouses, and storage locations
- › Separate scheduling sphere for each warehouse group (e.g., autonomous factory storage location, subsidiary warehouse, replacement parts storage, customer/vendor consignment warehouse)
- › Exclude warehouse groups from valuation (e.g., repair warehouse)
- › Identification of a non-scheduled warehouses (e.g., interim warehouse)
- › Random storage location management or fixed storage location allocation
- › Manage relocation properties for each warehouse group
- › Assign standard receipt locations and standard issue locations for each warehouse group
- › Manage product minimum stock levels for each warehouse group
- › Individual procurement mode per warehouse group
- › Record an address for each warehouse group/warehouse

Stock adjustments

- › Manual stock adjustments (receipt, issue, transfer), with container specification and the possibility to transfer the entire location quantity of a product with optional correction of the location allocation in active processes
- › Cancellation of manual stock adjustments
- › Material allocations in stock adjustments
- › Stock correction
- › Set the mixed price (corrective mixed price and last cost price for a product)

Storage quantities

- › Bundle information
- › Project, use, finished part, and lot/serial number information
- › Consumption sequence date
- › Valuation information

Lot/Serial number management

- › Manual or automatic creation of lots/serial numbers
- › Use lots and serial numbers in sales, purchasing, production and Service
- › Document lot/serial number information in the stock movement journal
- › Seamless tracking of lot origin/lot use

Containers

- › Classified container objects
- › Container status: Empty, Delivered, Returned, Locked
- › Container content with bundle information
- › Mixed containers in warehouse and shipping
- › Adjustable label printing
- › Planning of packaging material by scheduling
- › Packaging material inventory management

Stocktaking

- › Key date or permanent stocktaking
- › Central control through Stocktaking center
- › Create inventory sheets according to diverse criteria
- › Print inventory sheets
- › Stocktaking start
- › Enter inventory counted
- › Inventory closing
- › Select the stocktaking valuation method
- › Stocktaking completion
- › Determine and debit stocktaking differences
- › Complete inventory traceability

Evaluations/Reports

- › Warehouse hierarchy
- › Stock movement journal
- › Product stock level
- › Negative stock levels
- › Zero stock analysis
- › Warehouse stock on key date
- › Current stock value
- › Calculate optimal minimum stock levels and batch sizes
- › ABC analysis
- › Lot tracking
- › Storage quantity analysis
- › Relocation of multiple product stocks
- › Container status
- › Inventory sheets
- › Inventory difference list
- › Delete location quantities

3.6 Scheduling

Scheduling modes

- | | |
|--|---|
| <ul style="list-style-type: none"> › Variant related › Sales order related › Project related › Requirement related › Extended requirement related | <ul style="list-style-type: none"> › Minimum stock level related › Remaining quantities related › Empty (product will not be taken into account by scheduling) |
|--|---|

Warehouse group scheduling

- | | |
|--|---|
| <ul style="list-style-type: none"> › Separate scheduling for each warehouse group › Scheduling properties of the products can be defined | <p>separately for each warehouse group</p> <ul style="list-style-type: none"> › Date and material requirements planning for each warehouse group |
|--|---|

Scheduling characteristics

- | | |
|---|--|
| <ul style="list-style-type: none"> › Processing performed in accordance with the Net-Change principle › Backward/Forward scheduling › Fixed dates › Gross requirements calculation › Requirement coverage analysis for sales order requirements, planned requirements, and minimum stock › Management of discontinued and follow-up parts with use of remaining quantities in the warehouse › Date shifts in capacity planning and production control directly affect the materials planning | <ul style="list-style-type: none"> › Sales, production and resource planning (MPS = Master Production Schedule) › Scheduling calendars taken into account › Critical path calculation › Batch size and minimum stock level calculation › Continuous scheduling or manually started scheduling runs › Scheduling run for individual scheduling groups (products can be assigned to scheduling groups) › Scheduling of packaging materials (containers, pallets, load carriers, transport containers, etc.) |
|---|--|

Capacity planning

- | | |
|--|--|
| <ul style="list-style-type: none"> › Fix the theoretical capacity in the capacity units: machines, work centers, manual workstations, assembly groups, etc. › Work calendar for each capacity unit | <ul style="list-style-type: none"> › Edit the theoretical capacity in the individual operations › Analyze the effects of rescheduled dates › Determine bottlenecks › Workload overview |
|--|--|

Evaluations/Reports

- › Scheduling report
- › Scheduling runs
- › Plan chart
- › Plan chart rows per product
- › Procurement status
- › Status of use
- › Missing parts list
- › Scheduling bottlenecks for critical orders
- › Capacity planning
- › Capacity bottlenecks

3.7 APS Viewer

General

- › Relevant planning processes, including work order suggestions, purchase orders, work orders/operations, and subcontracting, are displayed with all of their inter-dependencies (Gantt viewer).
- › Consideration of machines, capacities, shift schedules, calendar drill-down to relevant processes and master files via right mouse button
- › Consideration of work order suggestions, purchasing activities, subcontracting and relocation over all levels right up to the sales order
- › Quick overview through "traffic light functions"
- › Detailed information by expanding a row
- › Zoom functions
- › Various filter functions

Resource view

- › Display of the planned operations per resource
- › Display of "conflicts" (e.g., multiple assignments)
- › Available working time respective to the shift module

Capacity overview

- › Utilization representation in comparison to available capacity
- › Different levels of detail: daily, weekly or monthly utilization

Production order view

- › Display of sales order relations as well as the complete procurement status for all production orders
- › Check if deadlines can be met (color display)

3.8 Production

Supported production methods

- › Mass production
- › Serial production
- › Small batch production
- › Order-related production

Production lists

- › Neutral product master file production lists
- › Pseudo components
- › Order-related production lists
- › Growing, project-related production lists
- › Control the material withdrawal mode in production (retroactive/manual) at the production list item level
- › Rule based introduction/discontinuation control at the item level for materials or operations (date or quantity based rules)
- › Identification of element classes (operation, module, purchased part, etc.) with icons
- › Identification of materials provided by customer or to vendor
- › Identification of subcontracting steps within a production process
- › Identification of external production (Make-or-Buy) abas ERP 21.1 (Service Pack): Creation of production lists by procurement type (in-house production, external procurement)
- › Identification of by-products

Work order suggestions

- › Manual creation of work order suggestions (warehouse orders)
- › Edit work order suggestions created automatically by scheduling
- › Availability check for required materials/capacities
- › Jump to advanced planning and scheduling (APS Viewer)
- › Edit start dates and finish dates
- › Edit suggested quantities
- › Edit the production list of a work order suggestion
- › Make-or-buy: change the procurement mode at production list item level
- › Determine critical processes (dates)
- › Cancel work order suggestions
- › Fix work order suggestions and then release them as work orders for production

Work orders

- › Create work orders from work order suggestions
- › Work order splitting
- › Generate a missing parts list
- › Create shop floor papers: work slips, material slips, job tickets, pull lists
- › Progress control
- › Edit the order-related production list (optionally also in the confirmed section)

Completion confirmations through work orders

- › Entire work order or individual operations that need to be confirmed
- › Record working time and/or machine time
- › Record quantities, yields, scrap quantities, scrap reasons, rework quantities, rework reasons, and personnel and machine times
- › Reduce the production quantity in an active work order with effects on subsequent operations
- › Display reduction limits in the order production list
- › Record the received lot/receipt serial number
- › Allocation to containers
- › Automatic (retroactive) or manual material withdrawal entry separate from the completion confirmation
- › Material allocation for retroactive material with issued lot/issue serial number and container
- › Enter excess/shortfall in withdrawals
- › Recovery from work orders
- › Enter unplanned completion confirmations
- › Enter overheads
- › Retroactive completion confirmation for completed work orders

Cancellation/Recovery/Correction of time entry

- › Cancellation of completion confirmation documents
- › Recovery from an operation
- › Record material returns
- › Record corrections to time entries

Completion confirmations through PDC (plant data collection)

- › Machine-related work lists with process-controlled plant data collection
- › Time recording via PDC devices and terminals
- › Record attendance times
- › Record order times
- › Completion confirmation types are controlled by specifications in the PDC terminal
- › Freely definable shift schedules and daily schedules
- › Automatic shift allocation
- › Automatic end of job
- › Time data archive

Manual material withdrawal entry

- › Load the material of the production list for the work order or work slip
- › Withdrawal for additional material
- › Edit the entry quantity
- › Delete/Release remaining quantities
- › Specify lots/serial numbers
- › Edit withdrawal locations
- › Edit material allocations
- › Material withdrawal from containers

Subcontracting

- › Map multiple production steps at different subcontractors in a production list
- › Create subcontracting suggestions and release them as service orders in purchasing
- › Subcontracting with material provided/without material provided
- › Manage semifinished products and subcontracting materials provided at the vendor

Extended work bench/External production

- › Map Make-or-Buy decisions
- › Request/Order external processing or external production
- › Transfer semifinished parts/provided parts via packing slip to the subcontractor
- › Stock surveillance in the consignment warehouse of the subcontractor
- › Receipt postings of processed parts through a goods receipt slip with completion confirmation to production
- › Enter subcontracting costs via a receipt invoice and integration into final costing

Combined production

- › Posting by-products as a warehouse receipt
- › By-products are taken into account for the BOM entries (manual or retroactive entry from production)
- › Costs for by-products of the work order are taken into account in the final costing
- › Costs for the by-products are deducted from the material costs of the main product to be produced in the preliminary costing
- › Scheduling treats by-products in the production lists as planned receipts
- › Available capacities are loaded with the planned/target figures available for the work order suggestions and work orders

Standard dashboards

- › Production workstation: Task overview, Notes overview, Production overview
- › Production overview: overview of the work orders, critical work orders, delayed relocation

suggestions and work order
suggestions, scrap, as well as
machine utilization

Evaluations/Reports

- | | |
|--|----------------------------------|
| › Production center | › Plan chart |
| › Attendance and absence list | › Procurement status |
| › Time record | › Capacity planning |
| › Time stamp list | › Capacity bottlenecks |
| › List of order times according to
different criteria | › Machine loading and scheduling |
| › Missing parts list | › Shop floor papers |
| | › Cancellation>Returns center |

3.9. Service processing

General

- | | |
|---|---|
| › Administration and control of
services for a sold product | › Automatic update of the service
product BOM when components
are exchanged |
| › Broken down by on-site service,
in-house repair, and forwarding to
an ESP | › Record cyclical service and
maintenance for a service product |
| › Record an archived BOM in the
service product (service product
BOM) | › Sidebar in process screens:
collapsible/expandable, with
information about the process
(e.g., tasks, notes, workflows ⁶)
and active processes of the
entered contact |
| › Manual processing of the service
product BOM to exchange or add
parts | |

Master files

- | | |
|--|--------------------------------|
| › Qualifications/Degrees of
qualification | › Service BOMs |
| › Service products | › Service assignment types |
| › Service product BOMs | › Service assignment resources |
| › Services | › Service engineers |
| | › Service teams |

⁶ in combination with abas BPM Toolkit

Service management

- › Service requests
- › Service quotations
- › Service orders
- › Single-or-multiple-day service reservations for engineers and assignment resources
- › Service completion confirmations
- › Create service reports
- › Repair orders
- › Cost estimates
- › Packing slips (receipt/issue)
- › Delivery of customer devices
- › Invoices
- › Temporary replacement provision/collection

Standard dashboards

- › Service processing workstation: Task overview, Notes overview, Service overview
- › Service overview: overview of all maintenance, repair and service processes

Evaluations/Reports

- › Service product where-used list
- › Service product BOM
- › Service product history
- › Service chain
- › Outstanding services
- › Service request overview
- › Service report

3.10 Costing and valuation

Preliminary costing

- › Selectable valuations of the material components (purchase price, mixed price, last cost price, planned transfer price, base price)
- › Preliminary costing of products, modules, finished products, quotations, and sales orders
- › abas ERP 21.1 (Service Pack): Product preliminary costing with different procurement modes (make-or-buy)
- › Preliminary costing using variable costs and full costs
- › Weight calculations
- › Preliminary costing statistics of products
- › Due date calculation, delivery time
- › Consideration of quantity discount scales
- › Correction of quantity-and-date-dependent production list structures
- › Edit costing results

Concurrent costing

- › Based on
 - Posted completion confirmations
 - Production (valuated times)
 - Posted material consumption
 - Special direct costs in production
 - Special direct costs in sales
 - › Inclusion of expected costs in controlling
 - › Display of the current cost status
- › Automatic determination of the inventory value of sales orders in progress
- › Preview of all expected costs
- › Comparison of actual accrued costs and planned costs for all production levels

Valuation as the basis for final costing

Various valuation methods for stock receipts and issues

RECEIPT

- › Transaction price
- › Planned price
- › Zero valuation

ISSUE

- › Receipt price
- › LIFO
- › FIFO
- › Mixed price
- › Warehouse group mixed price

Final costing

- › Based on
 - Work orders (parts, modules, finished products)
 - Sales order-related procurements and warehouse procurements
 - Sales orders
 - Editable cost collectors
- › Costing on the basis of variable costs and full costs
- › Costing based on the period per part to determine average values
- › Distribute costs using cost allocators in purchase invoices
- › Mixed price update
- › Comparison of costing results

Material and production costs posting

- › Exact price, quantity, and value history in the entire ERP system
- › Exact determination of the stock value
- › Exact process-related values in final costing
- › Various valuation methods for stock receipts and stock issues
- › Planned price and zero valuation
- › Inventory management of the works in progress without differences using a valuation method
- › Prompt valuation and automatic entering of stock adjustments and completion confirmation times separated by labor and machine costs
- › Cost entry suggestion
- › Cost entry per account
- › Cost entry per row

- › Transparency of entry results by using drill-down functions up to the document level (stock movement journal and completion confirmations)
- › Representation of materials provided in purchasing on a value basis
- › Subcontracting and material costs posting
- › Evaluations for valuation and posting results (material costs posting and production costs posting)
- › Manage consignment warehouse locations
- › Report of all delivered, but not yet invoiced products (sales)
- › Report of all received, but not yet invoiced products (purchasing)
- › Quantity revaluation: upvaluation/devaluation of stock levels or products after stocktaking

Evaluations/Reports

- › Costing sheet
- › Costing overview
- › Preliminary costing error log
- › Incomplete final costing
- › Preliminary costing statistics of a product
- › Final costing statistics of a product
- › Preliminary/Final costing comparison
- › Costing statistics with cost variances
- › Linkage of valuations
- › WIP on key date
- › Costs of a work order
- › Current stock value (Valuation)
- › Valuation reference
- › Status analysis of a valuation

3.11 Financial accounting

The financial and fixed asset accounting of abas ERP are audited and certified by an independent auditing company at regular intervals. The software certificate may be requested.

Fiscal periods

- › Freely definable fiscal periods (calendar conform or deviating from calendar months or years) and therewith support for the 4-4-5 rule as well as equivalent methods
- › Effects of the period logic on all fiscal reports and financial applications
- › Multiple fiscal years postable in parallel
- › Period closings and entries in different periods (month, year)
- › Repeatable annual changeover with automatic balance transfers; user-controlled master files transfers (accounts, tax codes, etc.)
- › Simultaneous posting in different periods
- › Three follow-up posting periods, two of which can be used for all processes

Chart of accounts

- › Charts of accounts similar to SKR04 and SKR03 from DATEV
- › Set up own company-specific charts of accounts
- › Flexible grouping through account ranges with multiple levels
- › EU and foreign accounts, intercompany accounts, accounts for special tax cases for revenue and goods purchases
- › Allocation of cost types
- › Identifier for mandatory entries

Taxes

- › Any number of tax codes and tax periods can be defined
- › Freely definable tax cases down to the region level
- › Tax adjustments are possible at every change of month
- › Tax adjustments without redefining the tax code or account assignment
- › Report the VAT for construction work
- › Monthly, quarterly and annual advance VAT return possible, even over staggered fiscal years
- › Electronic entry of advance VAT return and permanent time limit extension via Elster
- › PDF output of advance VAT return
- › Verification of advance VAT return
- › Amendments are always integrated quickly
- › Support for "non-deductible input tax"
- › Advance VAT return for other countries and other currencies

Entries

- › Automatically generated financial entries for
 - Incoming invoices from invoice verification and incoming packing slips
 - Outgoing invoices from invoicing and outgoing packing slips
 - Material withdrawals, material movements from warehouse management
 - Incoming and outgoing payments
 - Bank statements
 - Fixed asset accounting
- › Single postings/Collective postings
- › Postings in any entry currency
- › Postings with the option to allocate them to cost centers/cost objects
- › Cost allocations from financial entries
- › Direct posting in the dialog
- › Clearing from G/L accounts
- › Comparison of any fiscal years
- › Multiple sets of books, e.g., for IFRS
- › Cash book
- › Recurring entries

Cash management

DEBTORS

- › Payment suggestion list
- › Partial and collective payments
- › Check payments and payments by bill of exchange
- › Direct debit scheme
- › SEPA direct debit scheme in Germany and abroad
- › Direct debit procedure with QR code in the franc payment area
- › Cash book
- › Downpayments
- › Payments in foreign currencies
- › Manage outstanding items in foreign currency
- › Clear outstanding items with settlement report and settlement notification
- › Monitor cash discount periods and deductions
- › Import and automatic posting of bank account statements
- › Liquidity planning

CREDITORS

- › Payment suggestion list
- › Monitor cash discount periods and deductions
- › Settlement of credit notes
- › Bank transfers, checks, bills of exchange
- › Electronic banking
- › SEPA payments (euro countries and additional EU member states)
- › Cash management with QR code in the franc payment area
- › Downpayments
- › Clear outstanding items with settlement report and settlement notification
- › Foreign payments
- › Payment history, settlement history, revaluation history
- › The current status and condition for a key date can be called and traced at any time
- › Checkbook management and check print
- › Liquidity planning

Outstanding items administration

- | | |
|---|--|
| <ul style="list-style-type: none"> › Outstanding items accounting for AP, AR, employees, and G/L accounts, even for any past key dates › Outstanding items from invoices and entries › Downpayment management › Other receivables and payables › Settlement of outstanding items › Outstanding items in foreign currencies › Outstanding items lists according to different selection and sorting criteria | <ul style="list-style-type: none"> › Revaluation of outstanding items in foreign currency › History of an outstanding item: invoice, posting, payment, settlement, revaluation, reminder › Determine the payment due dates according to the terms of payment › Consideration of fixed value date › Definition of different terms of payment for different invoice data in terms of payment codes › Balances confirmation, also in foreign currency |
|---|--|

Guarantees

- › Allocate guarantees for sales orders or projects
- › Record typical information for guarantees
- › Archive guarantee contracts in abas DMS

Reminders

- › Reminder suggestion list
- › Customizable reminder texts
- › Reminder locks for customers and individual items
- › Interest on arrears, reminder fees
- › Reminder history

Account range forms

- › P&L and balance sheet
- › BA cost statistics
- › Free definition of additional forms and reports

Further functions

- › Advance VAT return (via Elster and print output)
- › Digital company audit according to GoBD (German electronic financial accounting standards) and GDPdU (Principles for data access and the verifiability of digital documents)
- › Deletion of entries and financial accounting transaction figures for completely closed fiscal years
- › Automated generation of the opening entries when adopting data of outstanding items during the opening phase

DATEV

- › Configuration settings for DATEV export
- › DATEV export of G/L account balances (balance lists)
- › DATEV export of purchase and sales invoices

Standard dashboards

- › Controlling dashboard
- › Top 10 dashboard
- › Management dashboard

Evaluations/Reports

- › Totals and balances
- › Entries
- › Account range form
- › Corridor Controlling
- › Account report form according to free fiscal years
- › Revenue entry report
- › Accounts
- › P&L with account report
- › Entry journals
- › Permanent time limit extension
- › Cash book receipts/expenditures
- › Account consolidation structure
- › Account statement
- › Account evaluations
- › P&L planned/actual comparison
- › Balance sheet planned/actual comparison
- › EC sales list
- › Account transaction postings
- › Analysis of VAT differences
- › Cost statistics I + II
- › Balance sheet and BA with account report
- › Evaluation of guarantees (not closed and closed guarantees)

3.12 Fixed asset accounting

The financial and fixed asset accounting of abas ERP are audited and certified by an independent auditing company at regular intervals. The software certificate may be requested.

General

- › Manage any number of fixed assets
- › In addition to the general properties, the following are also administrated:
 - Acquisition data
 - Commissioning data
 - Depreciation data
 - Retirement data
- Cost centers
- › Hierarchical grouping of fixed assets
- › Recording relative and absolute value changes
- › Implementation of fixed asset retirements and transfers with fixed asset transaction

Depreciation

- › Depreciation methods:
 - Tax-based depreciation
 - Imputed depreciation
- › Depreciation methods for fixed assets:
 - Immediate depreciation
 - Net book value through remaining life
 - Depreciation rate of acquisition value
 - Depreciation rate of net book value
 - Acquisition value through useful life of the fixed asset
 - Acquisition value through remaining useful life of the fixed asset
 - Net book value through useful life of the fixed asset
 - Definable depreciation calculation

- › Depreciation to the day
- › Depreciation for various periods
- › Depreciation calculation through depreciation suggestions or planned/unplanned depreciation
- › Different depreciation models for each set of books
- › Taxable or imputed depreciation models with index series

Evaluations/Reports

- › Asset history sheet: development of acquisition costs and costs of goods manufactured, book values, and depreciation throughout a fiscal year; including monthly transaction figures
- › Fixed asset history: individual entries to the fixed asset in a selected period
- › Depreciation movement schedule: development of a depreciation over a defined period and output currency
- › Depreciation planning: preview of the scheduled depreciation for the next seven fiscal years
- › List of retirements: overview of all fixed asset transactions in a defined fiscal year
- › List of acquisitions: overview of all new acquisitions in a defined fiscal year
- › Development of fixed assets: display APC, depreciation and book values with their acquisitions and retirements from transfers and depreciation
- › Asset history sheet (imputed): overview of the value development of an individual balance sheet item of the fixed assets
- › Fixed asset history (imputed): sort all entries for a fixed asset in accordance with the entry type
- › Depreciation movement schedule (imputed): overview of the depreciation developments of a defined fiscal year
- › Evaluation of the fixed assets for each individual set of books

3.13 Cost accounting and controlling

General

- › Actual and standard cost accounting
- › Full and marginal cost accounting
- › Cost type accounting
- › Cost center accounting
- › Cost accounting closing
- › Transfer posting of overheads from primary cost centers to cost objects
- › Cost object accounting
- › Contribution margin accounting
- › Prompt valuation and automatic posting of detailed completion
- › confirmation times with the aid of production costs posting
- › Report the times to different debit and credit accounts, separated by labor, machine, and special costs (fixed/variable)
- › Statistical entry journal

POSSIBLE VARIANTS:

- › Actual cost type accounting and actual cost center accounting limited to the primary costs

- › Actual cost center accounting with internal account activity allocation
- › Actual and planned cost center accounting with planned/actual comparison and internal account activity allocation
- › Cost center accounting according to flexible standard costing with target/actual comparison

Evaluations/Reports

- › EDS with account and entry reports
 - for postable objects and consolidation objects
 - for cost centers and cost objects
 - for any periods
 - for 13 adjacent periods
- › Comparison for EDS evaluations (evaluate 20 cost elements in parallel)
- › Secondary cost report: to evaluate secondary costs
- › Production costs posting⁷
 - Valuation: evaluation of performed activities of a cost center/cost object based on valuations
- › Cost rates: determine average cost rates from costs and activities for a selected period
- › Freely definable evaluation options possible for cost element and cost type ranges

⁷ See also the section on Material and production costs posting

4. SPECIAL PROCESSES

4.1 Project cost accounting

General

- › Project-related processing of scheduling, procurements, storage, valuation, and cost accounting
- › Project-related evaluation using P&L as well as accounts receivable and accounts payable

4.2 Group accounting

Consolidation of multiple companies

- › Consolidated financial statement with group balance sheet and group P&L statement
- › Consolidation of the account balances from multiple companies

Map group structures

- › Affiliated companies
- › Consolidation groups
- › Grouping mapping
- › Group-specific accounts

Data exchange of financial data

- › Client identification
- › Consolidation of the advance VAT return

Evaluations/Reports

- › Overview of group-internal and group-external entries
- › Group-internal revenue entry report

4.3 Electronic invoice distribution

Automatic invoice distribution via email

- › Activation of electronic invoice distribution as well as the specification of the recipient's email address at the customer master files level
- › Automatic adoption of these presets in the sales processes upon entry of the invoice recipient and adoption through the process chain
- › Configuration-based design of the email (e.g., CC, BCC, HTML body), even in various languages of correspondence
- › Automatic distribution of outgoing invoices upon posting the invoice as an attachment to an email sent to the defined recipient email address
- › Protection against duplicate distribution, renewed manual triggering of the distribution is possible at all times

Transfer to email archiving

- › Automatic transfer of the outgoing email (EML file with PDF invoice in the attachment) as well as corresponding index data for the archiving (if DMS system - abas DMS or third-party DMS - in place)
- › Indexing of all fields configured for the "Invoice" document type

4.4 eInvoicing

Supported standards

- › ZUGFeRD 1.0
- › ZUGFeRD 2.1/Factur-X 1.0
- › Company-specific expansions possible by editing the mapping models included in the standard release

ZUGFeRD 2.1/Factur-X

- › Outgoing electronic invoices in sales in ZUGFeRD 2.1/Factur-X format as a PDF/A-3 file
- › Support for the EN 16931 profile
- › Automatic validation of the XML file during creation (XSD, Schematron)
- › Revision-proof archiving of outgoing invoices in abas DMS supported⁸

⁸ in combination with abas DMS (add-on)

4.5 EDI

General

- › Supports EDI standards: online-integration of the standardized EDI processes in accordance with VDA, ODETTE, EDIFACT or ANSI X12
- › Worldwide electronic exchange of business data
- › Uniform international standards such as EDIFACT or ANSI X.12 to exchange business data
- › Supports the following message formats:

OVERVIEW OF EDI BUSINESS PROCESSES				
Business processes \ Data exchange formats	EDIFACT	VDA	ODETTE	ANSI X.12
Purchase order/Sales order	ORDERS	4925		850
Order confirmation	ORDRSP	4926		855
Order change	ORDCHG	4925		860
Packing slip	DESADV	4913		856
Product price list	PRICAT	4911		832
Payment advice note	REMADV	4907		820
Invoice	INVOIC	4906		810
Credit note	CREADV	4908		812

Evaluations/Reports

- › EDI center
 - Check and monitor incoming/outgoing messages
 - List of incoming and outgoing messages for a preferred period
 - Analysis and correction of errors
- › Payment advice note log
- › Packing slip history
- › Collective invoice
- › Post-invoicing

4.6 Automotive & Supply

General

- › Efficient early warning system: planners receive warnings about changes
- › Full transparency in the forecast delivery, delivery, and production fields
- › Administration of automotive-relevant information in blanket orders (e.g., contract number, reference code, change status of the construction)
- › Control to-the-day delivery quantities using cumulative quantities
- › Analyzable delivery schedule differences

Container management with administration of container accounts and cycles⁹

- › Keep container entries on container accounts
- › Corrections of container entries
- › Account comparison
- › Evaluation of container entries (infosystems CONTAINERDETAIL, CONTAINERMOVEMENTS)
- › Receive and process load carrier account statements as electronic EDI messages (according to VDA 4927)

Sales

BLANKET ORDERS:

- › Manage construction change status
- › NAEL number (BMW)
- › Fields for the early-warning system

Delivery schedule management

- › Create and update forecast/JIT delivery schedules/pick-up sheets automatically via EDI
- › Create forecast/JIT delivery schedules/pick-up sheets using the fast entry screen
- › Display forecast/JIT delivery schedules (delivery schedule line) with comparisons of old and new
- › Manage forecast/JIT delivery schedules in blanket orders
- › Account for quantities in transit
- › Warning messages for excess/shortfall in delivery schedule quantity differences
- › Forecast/JIT delivery schedule histories
- › Automatic creation of shipping plans through pick-up sheets

⁹ See also Chapter 3.5 Warehouse management, Containers section

Delivery schedule differences

- › Evaluate fluctuations using the delivery schedule difference analysis
- › Identify backlogs, immediate requirements, the delivery schedule quality and the tracking signal using the delivery schedule center

ESP processing/External service provider consignment warehouse (ESP)

- › Transfer of products and packaging material to the ESP warehouse and their administration
- › Packing slip/Shipping notification to the ESP/Shipping papers
- › Automatic processing of all transaction keys according to VDA 4913
- › Printing of relevant material tags according to VDA 4902 (among other standards)

Invoicing

- › Electronic invoices
- › Electronic credit note procedure
- › Automatic comparison of credit note data with internal documents (packing slip/invoice)
- › Display of price/quantity/rounding differences in credit notes
- › Electronic payment advice
- › Comparison of payment advice note data with internal documents (invoice/credit note)
- › JasperReport invoice layout according to DIN 4991 and VDA
- › Display of price differences for post-invoicing
- › Determination of new prices during post-invoicing

Vendor connection

- › Electronic delivery schedules for purchasing
- › Creation of delivery schedules for purchasing and distribution to vendors via EDI

Standard dashboards

- › Automotive workstation: Task overview, Notes overview, Delivery schedule monitor
- › Delivery schedule monitor: overview of critical delivery schedules and their procurement situations

Evaluations/Reports

- › ESP log
- › View container movements
- › Evaluate delivery schedule quality (Delivery schedule center)
- › Transport and shipment documents according to VDA 4939

4.7 Multisite

For master files and transaction data

- › Central maintenance and administration of master files and distribution to further clients
- › Automated exchange of transaction data in purchasing and sales
- › Central configuration of the data distribution (client list, schema, field mapping, etc.)
- › Number range management for different clients
- › Message bus to transfer messages (XML files) with monitoring
- › Apache NiFi for processing the messages (NIFISSETUP infosystem)
- › Infosystems to generate the central Multisite configuration (MULTISITECLIENTSETUP infosystem) and the components in RabbitMQ (MULTISITESETUPQUEUES infosystem)
- › Templates for the export of typical master files, e.g., product, customer, vendor, account

4.8 Warehouse

The special process Warehouse makes selected warehouse management functions available in a web application, which can be used on a mobile device with scan function and/or touchscreen in the web browser.

General

- › Record quantities
- › Record storage locations
- › Record lot/serial numbers
- › Record use and project information
- › Receipt based on a purchase order number or selection of a purchase order from a suggestion list with filter options
- › Possibility to create material allocations upon receipt
- › Manual receipt without purchase order relation
- › Relocation
- › Issue
- › Stock level information with search, filter, and relocation option
- › Creation of and information about purchase order suggestions

Shipment picking

- › Select a shipping plan released for picking from a suggestion list with search function
- › Sort the picking list by storage location or consumption sequence date
- › Display suggestions for the product, storage location, and lot
- › Search function using the product, storage location, and lot
- › Progress display
- › Complete picking and automatically generate packing slips (unposted, picked quantities in the material allocations)

Container actions

- › Create new containers
- › Relocate containers
- › Fill containers
- › Empty containers
- › Search for products in containers
- › Information about a container as well as its content

Stocktaking center

- › Select an inventory sheet from a suggestion list
- › Display or edit an inventory sheet
- › Search in an inventory sheet or sort it by product or storage location
- › Add new products
- › Enter counted quantities

4.9 Shopfloor

The special process Shopfloor makes the key functions of the work list from PDC available in a web application so that it can be used on terminal computers with touchscreen or tablets in the web browser.

General

- › Logged-in user is preset as the employee; default setting can be overwritten manually
- › Select the work center
- › Display the work slips for the selected work center up to a selectable date
- › Display production information (images, text characteristics) for a selected work slip
- › Display status information and notes for the selected work slip

Plant Data Collection

- › Start setup
- › Start processing
- › Create partial or final completion confirmations with yields, scrap quantities, scrap reasons, rework quantities, and rework reasons
- › Cancel processing
- › Report/End machine downtime with specification of a disruption cause
- › Create tasks

4.10 QM

General

- › Structured quality management process in compliance with DIN EN ISO 9001:2015
- › Manage inspection characteristics, inspection plans
- › Performance of
 - Incoming goods inspections
 - Inspections during production
 - Outgoing goods inspections
 - Checks based on customer-specific rules or events
- › Inspection equipment management
- › Complaints management
- › Vendor evaluation
- › Evaluate KPIs

Quality planning - master files

- › Inspection characteristics
- › Inspection equipment
- › Sample inspection
- › Inspection plans
- › Inspection plan templates
- › Three standard inspection procedures (incoming goods inspection, inspection during production, and outgoing goods inspection)
- › Custom inspection procedures can be defined and linked to inspection plans
- › Three standard inspection types (OK/Not OK inspection, measurement inspection, classification (A, B, C, D))
- › Custom inspection types with individual actual value validation can be defined
- › Master files for 8D report
- › Evaluation criteria

Quality assurance

- › Inspection jobs infosystem
 - Manage all inspection jobs
 - Pool of tasks of all quality inspectors
 - Start measured values recording
 - Initiate complaints
- › Record measured values infosystem
 - Record attributive and variable characteristics
- › Inspection equipment management infosystem
 - Schedule due inspection equipment calibration
 - Create inspection jobs
 - Document measured values
 - Manage calibration results

Quality control

- Complaints management
 - Record complaints (customers, vendors, internal)
 - Complaints tracking
 - Standard error catalog
 - Task management for handling the complaint process
- Vendor evaluation
 - Individual definition of hard and soft facts at the evaluation levels
 - Evaluate the objectively measurable hard facts and vendor assessment using soft facts
 - Display vendor rankings

Quality reporting

- Error analysis infosystem
- Individual reports can be created using the Dashboard functions

5. CONNECTORS & APIS

5.1 APIs

FOP (Flexible user interface programming)

- › abas specific, simple programming interface
- › Read and write access to abas ERP
- › Output in files or import of file

EDP (ERP data access protocol)

- › Export data to HTML, XML, or CSV
- › Import data to XML or CSV
- › Create any number of individual programs that have read and write access to abas via the programming interfaces ActiveX (Window) and JEDP (Java)

AJO (abas Java Objects)

- › Create any number of individual programs in Java that have read and write access to abas via the object-oriented programming interface AJO
- › Direct access on server-side and as client to remote installations

REST API

- › HATEOAS conform REST API (XML or JSON) for use in various programming languages
- › Can be used for editing processes for all objects (databases, type commands, infosystems, etc.) in abas ERP
- › Simple (CRUD) mode for batch or simple editing processes
- › Interactive mode using working sets for complex editing processes
- › Complete HTML representation of the API

5.2 Connectors

Microsoft SQL Connector

- › Incremental, unidirectional export of any data from abas ERP to Microsoft SQL Server®
- › Generate initial database tables in Microsoft SQL Server®
- › Data comparison for databases and complete exports for infosystems
- › Data for evaluation systems and other applications
- › Export infosystems with custom start parameters
- › Define periods/times for each export
- › Initial synchronization of individual tables
- › Multi-thread capable, significantly faster synchronization
- › Overwrite and insert infosystem data to record the data sets

PDM Connector

- › Standard connections to the following PDM systems:
 - PRO.FILE (PROCAD GmbH & Co. KG)
 - keytech PLM (keytech Software GmbH)
- › Upon request, other PDM systems can be connected; this requires an adjustment of the exchange configuration (mapping model).
- › Openly configurable scenarios for the exchange of product master files (standard, construction, project and sales order parts) and BOMs based on a standard template
- › Bidirectional transfer of product master files between abas ERP and PDM
- › Automatic or manual transfer of BOMs to abas ERP when a new PDM is created or an existing one edited
- › Manual comparison of production lists and imported BOMs using an infosystem with visualization of the differences in the items
- › Selective update of the standard production list or creation of a new production list variant
- › Change management/Versioning

DMS Connector

GENERAL

- › Configuration template for master files synchronization between abas ERP and third-party DMS to guarantee duplicate-free, manual keywording of documents for the following master files:
 - Customer
 - Customer contact
 - Prospect
 - Prospect contact
 - Vendor
 - Vendor contact
 - Engineer
 - Product
 - Service
 - Supplementary item
 - Account
 - Cost center
 - Cost object
 - Project (if project cost accounting or abas PM¹⁰ is activated)
- › Document types to categorize documents and control the corresponding document archiving in the third-party DMS
- › Index generator to generate index files with meta information for document archiving
- › Option to specify export directories to file the export files (document and index file) for retrieval by the third-party DMS
- › Expansion of the screens in the function areas Purchasing, Sales, Service and Financial accounting to include a separate DMS tab with the functions:
 - Allocate barcodes
 - Archive via drag and drop
 - Open list of archived documents for screen
- › Transfer documents created in abas ERP as PDF files with index data for COLD archiving
- › Support for drag & drop archiving of documents in abas ERP screens
- › Preparation to open documents archived in third-party DMS from abas ERP screens
- › Option to open abas ERP processes from the third-party DMS with the use of an appropriate call syntax

MASTER FILES

- › Document types
- › Layouts
- › Documents (internal/external)

¹⁰ Add-on (not included in the abas ERP standard release)

6. TOOLS

6.1 abas Tools

General

- › Basic tools that help with making adjustments to abas ERP
- › Built on the open development environment Eclipse
- › Can be run on various operating systems

Screen Designer

- › WYSIWYG editor to modify the abas ERP GUI screens
- › Add, delete or move elements
- › Conditional display of elements by recording conditions
- › Generate a screen preview directly from the designer
- › Regenerate individual screens directly from the designer

Report Designer¹¹

- › Graphical editor to design PDF output (document print, infosystem print)
- › Add, delete or move elements
- › Conditional display of elements by recording conditions
- › Supports various fonts and formatting elements
- › Supports various barcodes
- › Supports various image formats

DB Explorer

- › Visualize database objects from abas ERP (database browser)
- › Create database queries (selections), including conditions and across multiple objects (links)
- › Output the selection results as CSV file

ESDK Developer

- › Modern Java IDE to develop ESDK apps based on AJO
- › Support for Gradle-based ESDK app projects
- › Tools to simplify ESDK app development

¹¹ based on Jaspersoft Studio

FO Developer

- FO is abas's own scripting language for simple modifications
- Modern, comfortable development environment with support for, e.g.:
 - Syntax highlighting
 - Code completion
 - Validation of entries
 - Code refactoring
 - Tool tips
 - Connection to FO help
- Support for common control structures, e.g., procedures, loops, if-else, switch-case, etc.

AJO Developer

- AJO (abas Java Objects) is the high-performance, object-oriented, Java-based programming language for complex modifications
- Modern, Eclipse-based development environment

6.2 abas Dashboard

General

- Self-service technology to easily create custom dashboards for abas ERP
- The standard dashboards available in abas ERP were created on the basis of abas Dashboard and can be customized and expanded.
- The creation of a dashboard only requires configuration using the Dashboard Editor.

Widgets

- There is a collection of widgets available in the Dashboard Editor (e.g., indicators, graphs, lists). These can be linked to each other to gain insight into data from various perspectives.
- All widgets [at a glance](#)

6.3 abas Connect

General

- › Integration platform
- › Enables standardized communication of systems,
- › machines, and software with abas ERP
- › Set up and maintain routes on graphical interface (editor)

Connectors in abas Connect

abas Connect offers the following connectors for the route start and end points:

- › CSV
- › ASCII
- › XML
- › REST services
- › SQL
- › EDP
- › cXML
- › Email (outgoing)

Editor

abas Connect provides the option of creating and managing routes using a graphical editor:

- › Create routes
- › Edit routes
- › Document routes
- › Delete routes
- › Export routes
- › Import routes

Function components (handlers)

abas Connect is provided with a set of handlers using which you can configure and process routes according to your requirements. The following handlers are included:

- › abas Create Converter: creates a compatible abas data record which can be sent to an abas EDP end point
- › abas Query Generator: creates an abas ERP selection of required database fields
- › abas Update Converter: creates an abas conform query to update the data in abas ERP
- › Body Setter Handler: selects a property which replaces the complete contents of the message
- › Combine Handler: combines the values of multiple fields in a target field
- › Condition Handler: If the condition corresponds, filters a freely configurable list of subhandlers and executes these.
- › Enricher Handler: calls an alternative route in the current route for further processing
- › Header To Body Adder Handler: writes a header field in the main section of a message
- › Head To Table Adder Handler: adds header fields to each element of a list
- › Json File Content Appender Handler: adds a JSON string from a local file
- › List Comparator Handler: compares two lists according to a unique ID
- › List Filter Handler: filters a list of elements according to the specified criteria

- › List Grouper Handler: creates a list of identical IDs and their corresponding fields/headers
- › List Route Handler: executes one or more subhandlers for each element of a list
- › Loop Handler: repeatedly executes a list of subhandlers
- › Mapper Handler: renames field names within a message
- › Null Value Filter Handler: filters empty fields from a message
- › Priority List Filter Handler: filters a list of objects according to prioritized properties
- › Property Adder Handler: adds freely selectable values to the message
- › Property Remover Handler: deletes fields from the message
- › Replacer Handler: replaces characters or text sections of a field
- › Sql Batch Record Save Handler: saves multiples data records in a batch call in a database
- › Sql Delete Handler: deletes data records from an SQL database
- › Sql Record Reader Handler: reads a data record from an SQL database
- › Sql Record Save Handler: saves data records in an SQL database
- › Sql Select Handler: executes an SQL select command in an SQL database
- › Static Header Adder Handler: creates a header and adds it to the message
- › Table To Head Adder Handler: creates a header from the first entry of a list
- › Validator Handler: checks the condition specification which must be fulfilled so the route can be continued

6.4 abas Mobile Applications Framework

General

- › App development on Xamarin (app platform to create Android and iOS apps with .NET and C#)
- › Provision of mobile app templates:
 - CRM
 - Field Service
- › Offline function (limitation: individual functions, e.g., printing, require an internet connection.)

Mobile app template: CRM

- › View, create and edit customers, contacts, prospects, and prospect contacts
- › View, create and edit notes and tasks
- › View, create and edit opportunities, quotations, and sales orders
- › Release quotations as sales order
- › Release opportunities as quotation
- › Cockpit with 30-day sales history, pending tasks and transactions for review
- › Display customer and prospect data on a map

Mobile app template: Field Service

- › View, create and edit service requests
- › View, create and edit service orders
- › View, create and edit notes and tasks
- › View, create and edit service products
- › View the service BOM
- › Create service completion reports
- › Scheduling feature, which contains a week view, a month view, and a daily agenda view of service reservations and tasks

6.5 abas BPM Toolkit

General

- › Set of Business Process Management tools to model and optimize business processes:
 - Workflow Designer: graphical editor to create, edit and release workflows
 - Workflow Task Overview: cockpit to display and edit tasks
 - Workflow Viewer: application to display a current, active workflow instance
- BPM Administration: application to administer users and groups as well as configure triggers
- Process Engine
- › Integration in abas ERP:
 - performed in an application installed in an abas ERP client
 - includes PROCESSCENTER infosystem to display, edit and close ERP-related workflow tasks

Workflow Designer

- › Graphical editor
- › Model and configure workflows
- › Interdepartmental definition and documentation of processes, tasks, responsibilities and deadlines as well as process dependencies and priorities
- › Assign tasks to people, groups, and/or system services
- › Update deployed processes without affecting active processes (versioning of workflow)
- › Workflow tasks are manually processed by the user and completed.

SERVICE TASKS

- › Enable automated interaction with abas ERP objects
- › Automatic execution of tasks via process engine

SEND TASKS

- › Send an email to specified recipients
- › Automatic execution of tasks via process engine
- › Distribution of emails via configured email server

WORKFLOW TASKS FOR ABAS ERP

- › abas ERP-specific configuration
- › Assign a task to one or more users/groups
- › Define the abas ERP command to reference the abas object relevant for the task
- › Define the abas ERP client in which the abas ERP command will be run
- › Integrate abas ERP field values in the workflow (from the referencing ERP object)
- › Define a deadline (ISO 8601)
- › Set the priority of a task

TASKS USING DYNAMIC FORM

- › The dynamic form enables the configuration of a task without relation to abas ERP (or another system)
- › Add and define fields for the dynamic form
- › Define a deadline (ISO 8601)
- › Set the priority of a task

- › Workflow tasks are manually processed by the user and completed.

Workflow Task Overview

Tasks can be viewed and edited in the Workflow Task Overview. It is the cockpit

- › to display individual tasks (individual/group tasks) with corresponding details
- › to process tasks
- › to display completed tasks
- › to sort and filter tasks
- › to open the Workflow Viewer

Workflow Viewer

- › Display the current status of a workflow linked to a task (active workflow instance)
- › Highlight completed tasks
- › Highlight current operator tasks
- › Highlight overdue tasks
- › Highlight group tasks
- › Access Workflow view from Workflow Task Overview

BPM Administration

- › Administer users and groups:
 - Create new users and groups
 - Edit and delete existing users/groups
- › Configuration of abas ERP triggers so that workflows can be started automatically
- › Access configuration using the API key

Process Engine

- › Open source solution from Camunda
- › Made available using Docker images
- › Includes a database (PostgreSQL) in which all workflows, their current instances including workflow tasks, and history are saved.

6.6 abas PDM Documents Toolkit

General

- › PDM Documents infosystem to display documents for products from the following PDM systems:
 - PRO.FILE (PROCAD GmbH & Co. KG)
 - keytech PLM (keytech Software GmbH)
- › Selection in the infosystem by products or documents
- › Access to the PDM systems using the corresponding REST APIs
- › Integration in print so that drawings (PDF), e.g., for a purchase order or a work order, can be printed
- › When printing using an email printer, the files are attached as a document.
- › Configuration option for file types used for different print channels

ADD-ONS

BROWSER-BASED INTERFACE WEB CLIENT

The Web Client is the browser-based user interface for abas ERP. It allows you to perform your daily work in the sales function area flexibly, independent of time, place, and operating system. The Web Client is provided as a cloud service.

General

- › Access to abas ERP from any operating system
- › Pause started work: seamless continuation of editing at a later stage and on other end devices possible
- › Modern, user-friendly one-window navigation in the browser (breadcrumb navigation)
- › Global search: quick switch to processes or abas ERP functions
- › Fuzzy search
- › Full text search using all columns in the object selection
- › Suggestions for reference fields: display of the individual history (recently edited data records) when filling reference fields, including quick access to recently edited data records
- › Reference field navigation either via breadcrumbs or in a new tab
- › Multiselection: switch from View to Edit mode possible at all times
- › Integration of dashboards as the home page
- › Personalization through favorites functions at all levels:
 - Favorites dashboard as personal home page
 - Favorites menu with the most frequently used elements from the abas ERP menu
 - Favorites selections and print layouts that can be performed or used instead of standard settings

ABAS APS

General

This overview shows the most important differences between the APS [Viewer](#) (included in the abas ERP standard release) and abas APS.

	APS Viewer ¹²	abas APS
Resource view	X	X
Capacity overview	X	X
Production order view	X	X
Visualization in selectable levels of detail (e.g., day, week, month) and zoom function	X	X
Drill-down via right-click to the relevant processes and master files	X	X
Extensive filter function	X	X
Sales order view		X
Loading and scheduling lists		X
Shared, synchronized views		X
Manual working incl. group assignment		X
Write-back of result		X
Display and filter additional fields/information		X
Freely configurable displays and views of information		X
Printing functions		X
Export functions (e.g., Excel)		X
Bottleneck view		X
Interactive planning and optimization against limited capacity		X
Setup optimization		X
Consideration of resources		X
Personnel scheduling taking into account qualifications		X
Consideration of frozen zone		X
Possibility to prioritize and fix individual sales orders		X
Requirements and load oriented sales order release		X
Extended evaluations for purchasing (critical purchase orders)		X

¹² included in the abas ERP release version

abas APS

Based on »APS VIEWER«, abas APS offers additional planning options that are important for advanced planning and scheduling:

- › **Sales order view:**
 - Display of fulfillment of the sales order and the outstanding processes
 - Variance display on target delivery date
 - Link to the production orders - immediate cause analysis possible
 - Status information can also be seen immediately by sales without a query in the work preparation or planning
- › **Bottleneck view (queues)**
 - Enables the identification of critical resources
 - Wait time of the sales orders for each resource (the darker the bar, the more sales orders that are waiting)
 - Color of the bars shows whether a delivery due date can be met or not; in this way you can estimate whether additional shifts are required or if everything is OK despite the bottleneck
- › **Interactive planning and optimization against limited capacity**
- › **Integrated and flexibly configurable setup optimization**
- › **Consideration of resources:**
 - Alternative resources
 - Limited volume resources (e.g., assembly planning with multiple personnel)
 - Multiple required resources in an operation (e.g., personnel and means of production)
- › **Personnel scheduling** taking into account qualifications
- › **Consideration of frozen zone**
- › **Possibility to prioritize and fix individual sales orders**
- › **Requirements and load oriented sales order release**
- › **Extended evaluations for purchasing** (critical purchase orders)
- › **Expanded visualization:** separate, synchronized views, sales orders view and utilization list
- › **Manual working:**
 - Adjust operation times and alternative resources
 - Support for manual planning with snap-to functions
 - Manual group assignment
- › **Write results back:** completely or for selected orders
- › **Display and filter additional fields/information**
- › **Freely configurable displays and views of information**
- › **Printing functions**
- › **Export functions:** Extensive, freely configurable export options (e.g., Excel)

ABAS DMS

General¹³

- › Revision-proof archiving, management and organization of documents from abas ERP, paper documents, Office documents, and emails
- › COLD archiving of all documents generated in abas ERP with automatic indexing
- › Drag & Drop archiving of documents through abas ERP screens with automatic indexing
- › SCAN archiving (including a scan license) of paper documents and linking to abas ERP processes using barcode allocation - also from a mobile app
- › Office integration to archive emails, Word and Excel files in the original format
- › Direct access to documents archived in abas DMS from abas ERP
- › Document retrieval and administration through the abas DMS retrieval client
- › Add any number of comments to archived documents and freely select the position of the remarks within the document

Interface

- › DMS Connector¹⁴ included in the abas ERP standard release

Master files

- › Document types
- › Layouts
- › Documents (internal/external)
- › Customer and vendor information from abas ERP can be used to index documents

DMS integration in the abas ERP user interface

- › Display of documents filed in the archive for a process or master file record with filter function (document view)
- › Document preview

¹³ Corresponds to abas DMS 2nd Generation

¹⁴ See Chapter 5.2 Connectors, DMS Connector section

ABAS PM

General

- › Central administration of all active projects through the project center
- › abas DMS integration
 - › Multi-user planning

abas PM editions

This overview shows the most important differences between the three abas APS editions.

	Basic	Advanced	Professional
Project center	X	X	X
Project employees, teams, and resources	X	X	X
Project planning with graphical project planner	X	X	X
Resource planning with graphical resource planner	X	X	X
Subproject management	X	X	X
Project-based purchasing	X	X	X
Project-based production	X	X	X
Project time sheet	X	X	X
Multi-level project closing	X	X	X
Project cost accounting	X	X	X
Project statistics and evaluations	X	X	X
Project service catalog		X	X
Project-based sales		X	X
Forecast planning		X	X
Accounting system		X	X
Offline project time sheet	X	X	X
Project valuation		X	X
Project preliminary costing on the basis of bills of services			X
Project-plan-based preliminary/final costing			X
Amendment management			X
Advanced permissions management/Releases			X

abas PM Basic

- › **Project center** with project overview, overview of various measurement and control parameters as well as direct access to relevant functions
- › **Project employees and teams**, with specification of qualifications and availability
- › **Project resources**, such as vehicles, technical devices, or rooms
- › **Project planning** (workflow, subprojects, project types)
- › **Project scheduling** to execute forward or backward scheduling based on set criteria
- › **Graphical project planner** to visualize the project structure, existing tasks and their processing progress as well as inter-dependencies between the project elements. Almost all properties of the project element can be edited.
- › **Resource planning** (resources, employees, teams)
- › **Graphical resource planner** for the visual evaluation and manual editing of the hourly or task-based capacity of employees or teams
- › Subproject administration **to plan and control self-contained tasks within a project**
- › **Project-related purchasing** to manage purchasing requests, purchase orders, deliveries, and invoices in the project
- › **Project-related production** to track progress development of work order suggestions and work orders in the project
- › **Project time sheet**: reporting system to record activity reports in abas ERP
- › **Multi-level project closing** with configurable checks and actions
- › **Project cost accounting** to record and evaluate the costs incurred and development within the project
- › **Project statistics and evaluations**, e.g., project-based key figures about consumption and progress

abas PM Advanced

The function range of »PM BASIC« is expanded to include the following additional functions:

- › **Project service catalog** to define order and project-specific sales prices
- › **Project-related sales** to administer quotations, sales orders, packing slips, and invoices for projects
- › **Forecast planning**: sales and forecast projects to record and plan tasks or expenses in the quotation phase
- › **Invoicing system** on the basis of hourly service calculation
- › **Offline project time sheet** to record services outside of the abas ERP environment
- › **Project valuation** on the basis of determining work in progress

abas PM Professional

The function range of »PM ADVANCED« is expanded to include the following additional functions:

- › **Project preliminary costing** on the basis of bills of services
- › **Project-plan-based preliminary, final, and concurrent costing**
- › **Amendment management** to record amendments, change order requests, or additional services
- › **Advanced permissions management/Releases**

ABAS SERVICE PLANNER

General

- › Graphical service planner
- › Zoom, search, filter, and modification (drag & drop) functions
- › Infosystem connection using call parameters
- › Drill-down via right-click to the relevant processes and master files (e.g., service order, customer, etc.)
- › Multi-user planning with notification system
- › Client and location independent planning of service assignments
- › Display custom database fields
- › Coloring of service reservations based on custom properties
- › Custom and operative reporting, including further processing in Excel

Views

- › Order view - with service quotations and service orders as well as the corresponding service reservations and procurements from production, purchasing and relocations
- › Resource view - with all engineers and engineer team assignments as well as the corresponding service assignment resources
- › Location view - with an overview of engineers and service assignment locations
- › Utilization view - with a graphical evaluation of task loads for engineers and utilization of service assignment resources
- › Material view - with purchase order suggestions and purchase orders as well as work order suggestions, work orders, relocation suggestions and stock withdrawals with the corresponding service reservations
- › Calendar view

ABAS EXCHANGE CONNECTOR

General

- › Connector for unidirectional transfer of dates and contacts from abas ERP to Microsoft Exchange Server or Microsoft Exchange Online
- › Automatic update of dates and contacts when creating or editing data
- › Sync by click possible: user controls which contacts are to be synchronized
- › All setting options for data transfer directly in abas ERP, e.g., direct transfer of dates and contacts to Microsoft Exchange accounts or distribution through Microsoft Exchange Server / Microsoft Exchange Online
- › Possibility to classify any abas ERP objects as date or contact for transfer
- › Possibility to assign contacts to groups or individual users