canias ERP

The suitable ERP solution for every company

PRODUCT DESCRIPTION // MODULE OVERVIEW

Content

Welcome to the World of canias ERP

To be able to hold on to our guiding principle “Tailwind for your business“ we give our best every day and always try to stand by your side with the right solution for you. With our ERP solution, which combines 40 modules in its portfolio and has a range of features that go far beyond the classic ERP functions, we support you in optimizing your business processes and thus secure your competitiveness. With this book, we present a body of work in which you can view information about IAS, *canias ERP* and the range of functions and performance of individual modules. I am happy to be able to show you with this book our unique ERP solution and the people working behind it.

Compare it, if you will, to an orchestra, where often only the conductor and the first violin are in the foreground. A variety of experts with different instruments are perfectly matched, playing a wonderful work. Through the differences of the performers, a unique spectrum is created.

So is it also in our company. Our customers and partners often have contact with just a few of us. However, behind this is a large number of experts who make the successful work of others possible. Professionals from various disciplines. This diversity is necessary and good, because our tasks are versatile and the perfect interplay of our specialists ensure overall success at the end.

270 individual people worldwide, 1,000 different assignments, one clear goal: The success of your business. Applicable in many other areas, but especially in the business world:

“Products can always become more alike, the people behind this are the key. Because they are unique.”

Klaus Bikar // General Manager

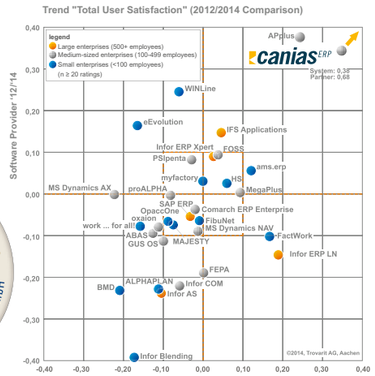
canias ERP

OUR SOLUTION IS AMONG THE BEST!

Users from medium-sized companies chose *canias ERP* as one of the best ERP solutions in the market, giving top marks for flexibility and further development.**

Werner Schmid, founder of GPS, on the comparison test results:*

In the search for a system that perfectly fits your company, the flexibility of the solutions on the market makes the biggest difference. Regarding flexibility, *canias ERP* is the only software that earned the highest score in our test. Users can configure *canias ERP* for a variety of business types and partners in any language simply and without additional programming.

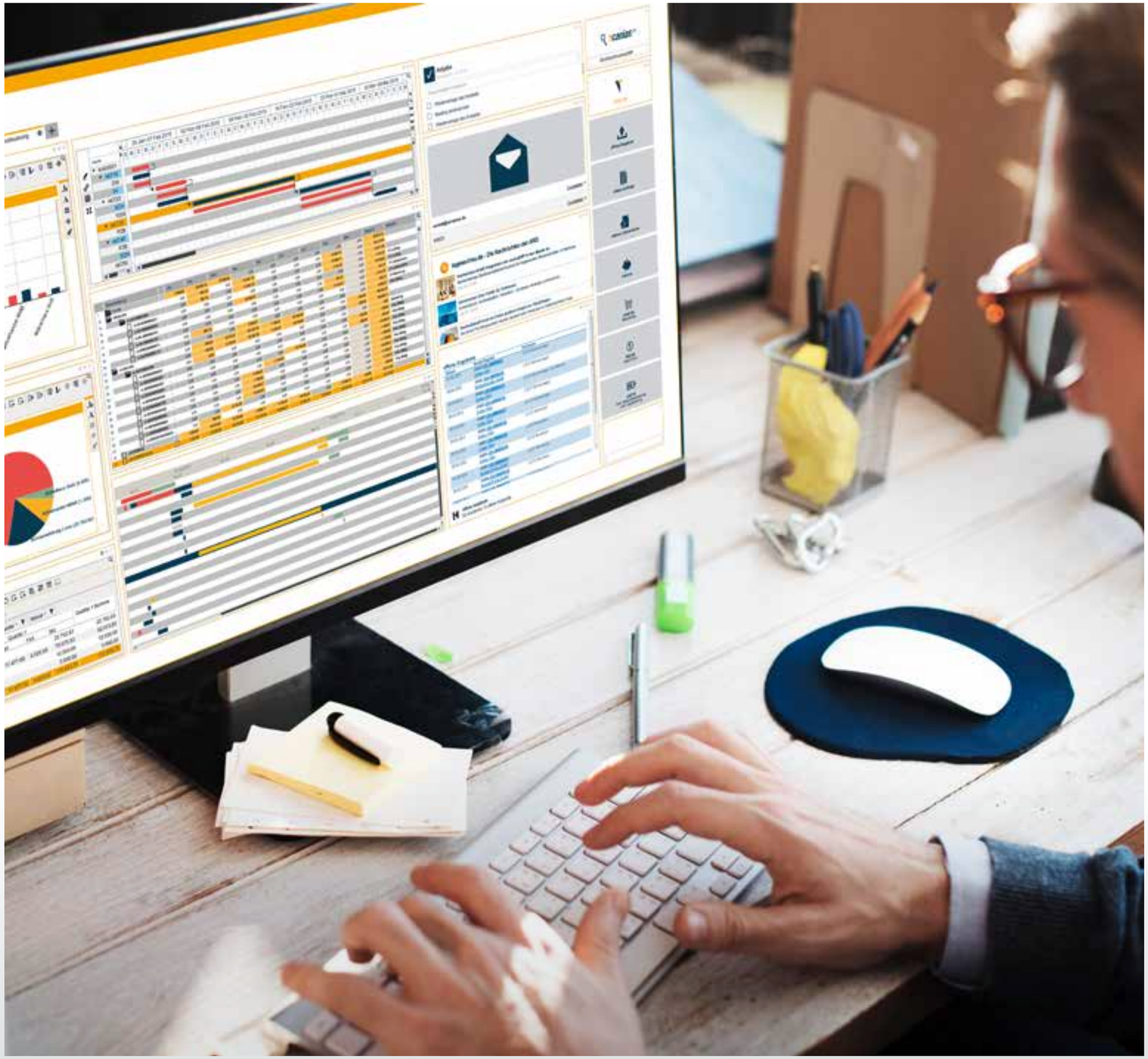


*2014 GPS ERP Excellence Test // **Trovarit ERP Study “ERP in Practice – User Satisfaction, Use and Prospects” // *among companies with 100-499 employees

LARGE OR SMALL

We have the suitable ERP solution for every company

canias^{ERP} is a flexible and fully integrated ERP software for small and medium-sized businesses. The ***canias***^{ERP} portfolio builds on the classical ERP functions and combines 40 modules with a wide range of capabilities. In addition to planning, sourcing, materials management and production, ***canias***^{ERP} also covers sales, CRM, financial management, project and document management as well as group collaboration and many other processes in a complete solution. In terms of business logic, the ERP system can be used in both standard and individualized form and the modules are chosen specific for each customer. The extraordinary adaptability is provided by ***canias***^{ERP}'s own development environment as well as the application's open source code differentiating this solution from other ERP systems on the market. This flexibility, together with wide scope and continuous attention to integration allows ***canias***^{ERP} to support companies with the optimization of their business processes and secures their competitiveness.



DAILY WORKING FOR YOU.
WORLDWIDE.

IN 26 COUNTRIES // IN 13 LANGUAGES // WITH MORE THAN 700 CUSTOMERS

Providing Solutions Today that are Necessary Tomorrow

OUR ONE-OF-A-KIND SOFTWARE TECHNOLOGY AND FLEXIBILITY ENABLES THIS

Software Infrastructure

The infrastructure from *canias*ERP includes:

Software Architecture

An almost limitless flexibility in the layout and composition of business processes is attributable to the unique selling point of the open object-oriented system architecture. This allows not only task management over corporate boundaries, but also a comfortable integration with third-party systems and a cross-system data exchange.

Technology

The ***canias***ERP application is separate from the current applied runtime environment, Java, but they work together through our proprietary interpreter. The interpreter reads the business logic from the application, transmits it to Java and then executes the processes. Thus, in case of an eventual change, it is sufficient to adapt only the intervening interpreter to the runtime environment, rather than changing the entire source code. This innovative technique is the core of the system's high flexibility and independence, and another special feature that is still unmatched on the market.

TROIA Development Environment

Constant market transformation presents companies with the challenge to quickly adapt their IT-landscape to changes. With the TROIA development environment, IAS has created a tool that can promptly adjust to customer needs without restricting release capability. This databank-based development tool will be delivered to every contract customer with the standard software and allows direct access to the source code of the ***canias***ERP application. This gives the customer the ability to set up the system exactly as they wish.

Your Solution

Regardless of whether you are looking for a standard system or for an individual application, you will find your solution in ***canias***ERP. The previously discussed innovative software infrastructure gives IAS the advantage of offering customers individual software concept. On this basis, ***canias***ERP can be offered in the form of a customizable standard ERP as well as an individual development platform. In the first concept version, IAS is the solution and consulting partner. We help you to identify and implement the optimal approach and advise you in concern of your ERP project on all issues. In the second concept version we primarily assume the role of a development partner: in other words, in addition to the basic implementation of the project, we support you in the adaptation of ***canias***ERP to your individual requirements and the company-specific development of the solution. ***canias***ERP guarantees maximum creative freedom, as IAS customers have direct access to TROIA, the source code of the application.

Your Success and Advantage

One big advantage for the customer, which the IAS principle produces right from the start, is the implementation of a solution exactly aligned to each customer's needs. Furthermore, the company ensures success through a tailored procedure for replacement, supplementation and implementation of their software as well as expert guidance during the whole project cycle. IAS works continuously with you on optimization and savings potentials, always keeping in mind practicability and effectiveness.

Our Expertise

Long-standing expertise has always been an important factor in ERP projects. The consultants of IAS are consultants and programmers in one. The customer receives extensive support since the strengths of our consultants are found in both the analytical and conceptual work as well as on the side of programming, problem-solving and solution-implementation. Besides the deep technical know-how, the consulting team has many years of national and international project experience in different branches. IAS attaches great importance to the understanding of your specific needs, to model processes precisely and to customize them in your system. In addition, our consultants focus on the end user's needs and ergonomic aspects. The maximum increase in efficiency, through integrated ERP software, will only be achieved when the new solution is fully accepted by your staff. To ensure this acceptance, our consultants carry out training (for end-users, administratortors, etc.) in small groups, online or on site and take a partnership approach throughout the project life cycle. As part of the implementation of customer projects IAS has extensive experience in the specific requirements and specifications of different industries. These industry skills allow us a fast implementation of similar projects in corresponding sectors, which enable our clients to have significant cost savings through the implementation of ***canias***ERP.

System Overview

The customizable standard software from ***canias***ERP has more than 40 modules completely integrated into the overall solution. These modules cover almost all processes of different business sectors and reach far beyond the classic ERP functions. The actual module scope of each client depends on their individual needs and can be extended over time without issue or interface costs. This continuous integration philosophy ensures high transparency as well as a continuous flow of information and significantly increases the efficiency of business processes. Through the unique technology and development environment of TROIA, users get direct access to the application's source code and can adapt their existing solution at any time to their company-specific requirements. This exceptional flexibility is what makes ***canias***ERP remarkable.

TROIA

INTEGRATED DEVELOPMENT ENVIRONMENT

TROIA is an open, object-oriented and integrated development environment (IDE) who sets standards in flexibility and speed for adjustments and reprogramming. Fully integrated into the ***canias***ERP platform, TROIA ensures fast application development. The development environment comes with each standard software maintenance contract and allows direct access to the source code from ***canias***ERP. Thanks to the object-oriented inheritance philosophy, any alterations made are lasting, even after a release change. That means the customer can always continue developing the application according to their needs without changing the standard source code. With TROIA, adjustments can be made not only by IAS consultants, but also by the customer's trained personnel. This greatly reduces the costs of specific adjustments and takes away the need for custom software programming through third party service providers.

Technology and Advantages

*canias*ERP is Platform Independent

The software runs on all common system environments and is also multi-platform capable. This way operating systems and databanks can be chosen according to business needs and cost considerations (e.g. open source solutions including MySQL and Linux). This makes the client independent from third-parties and ensures a high level of investment protection.

*canias*ERP is Multi-Tenant Capable

The multi-client support enterprise solution is able to depict several independent companies in a single software installation in an instant.

*canias*ERP Supports Interoperability

The open, object-oriented system architecture enables an easy integration of third-party systems and furthermore the exchange by means of web services with external systems based on the SOA concept (Service-Oriented Architecture). The open standard grants a high degree of future security.

*canias*ERP is Open Source and Cost Saving

The unique technology, architecture and development environment of TROIA gives clients direct access to the application's source code. This gives companies high flexibility with the ability to efficiently adjust and further develop their current solution at any time.

Module Overview

GENERAL OVERVIEW AND DESCRIPTION

BAS SYS &DEV

Basic System

*canias*ERP Basic System is automatically included and makes use of basic core data and system administration tools as well as check tables, development tools and workflow mechanisms to provide a comfortable and customized system arrangement.

BOM ROU CAL

Product Development

This area efficiently manages the bill of materials and allows for their easy creation or modification at any time. Routing enables the preparation of production and assembly steps and stores calculation methods used for cost determination as well as pricing and accounting.

SAL CRM SRV RTM

Sales

With *canias*ERP all sales processes from job development offer to invoicing can be illustrated. A full-grown CRM system with identification and administration of opportunities, campaign management, customer contact history and more expands the scope of services. Service management shows the available system and necessary service case information and provides a comfortable way to work on periodic recurring service activities and short-term fault reports.

PUR VER

Purchasing

This system optimizes and supports supplier relations worldwide, automates the procurement of materials and contracts, integrates verification and provides the additional comfort of price comparison reports.

INV QLT MRP WMS TRO

Material Management

Material management provides reliable information about necessary materials and manages inventory taking into account time and monetary aspects. Various planning methods and MRP procedures as well as more optimal and storable logistics help the user with the planning and scheduling of material movements. Warehouse management system assures an orderly structure in often chaotic warehousing and makes logistic procedures more efficient. The system takes care of picking, warehousing, or transfer orders and gives automatic storage suggestions for warehousing and accordingly the removal of goods. And, with the use of mobile data acquisition devices, stock movements can be managed from anywhere.

PRD CAP MNT PRC

Production Planning and Scheduling

This system supports series, variant and single manufacturing services, as well as custom production. Flexible planning and scheduling mechanisms ensure optimal capacity utilization and offer detailed scheduling options. Maintenance provides for the transparent planning and processing of both regular maintenance work and short-term maintenance and repair measures in the event of a problem.

FIN AST

Accounting

The integrated financial system displays the financial and asset accounting subdivisions and assures consistent and complete documentation. Access to the centrally managed data is possible at any time and able to match the desired amount of precision. For investment management, the system takes into account all statistical, financial and tax-based aspects.

HCM

Personnel

Human Capital Management (HCM) handles planning, managing and scheduling tasks in areas like position planning, applicant and training management, as well as employee assessment. All employee-related data and documents can be stored in the digital personnel file. Using *canias*ERP, staff information that is required in many different business processes can be centrally organized and bound to each respective process.

EDI

Integration

Electronic Data Interchange (EDI) assures secure electronic communication and data transmission over system and company borders.

BUD COS ERM BSC OLAP & BI

Corporate Management

The budgeting and costing sections provide the user with planning analysis and reporting tools. The Risk Management module enables the identification of risks with timely detection. Risk management is based on an ISO-certified model and accordingly has been developed and implemented to these standards. Balanced Scorecard is a management concept that builds on the accounting system, offering an overall view of the company and their critical success factors. OLAP&BI accommodates the multidimensional evaluation and visual editing of data. In connection with InfoSuite they work together as a full-fledged business intelligence system.

DOC CLB PRJ KMS BPM CMS

Overarching Modules

Document management handles, auditable if desired, all system-generated and external documents. Groupware (Collaborator) contains features like e-mail, address book, task manager, scheduler and short messenger, and ensures transparent internal and external communication. Project management offers the possibility to control, perform and analyze MRP effectively. *canias*ERP KMS supports the company by generating knowledge obtained from data and allows for the browsing and evaluation of all this information. Business Process Management (BPM) displays the individual processes of the company and is able to execute, monitor and control them.

Module Group

BASIC SYSTEM

BAS

SYS & DEV

Basic Core Data

BASIC SYSTEM

System Administration and TROIA Development Environment

BASIC SYSTEM

BAS Basic Core Data

BASIC SYSTEM

*canias*ERP Basic Core Data Management

The ***canias***ERP Basic Core Data (BAS) module constitutes the foundation and is the most important part of ERP software. This module is responsible for management of master data in addition to administration and control of the general system and is available in all ***canias***ERP enterprises. The ***canias***ERP Basic Core Data module is structurally connected to all function fields of the software.

With this module, not only classical basic data but also check tables are managed. Thus, extremely high flexibility is guaranteed for system users. In the framework of ***canias***ERP 's "authority" concept, some company employees may be granted the authority to perform configurations and changes related to their areas of business. Therefore, control over system design is entrusted to the user.

Check Tables as Base of the System

The ***canias***ERP system is based on check tables that are brought together within the ***canias***ERP Basic Core Data module. For instance, check tables are used for all selection fields to determine a material or document type, product group or warehouse location. Other examples include headings such as departments, authorities, material requirement planning, variants and planning related deadlines or source types.

Changes made in check tables become instantly effective. When a check table setting (for example, new table, structure or content change in an existing table) or a parameter is created, changed or deleted, the consequence of such change can be displayed immediately across the system.

Many customer demands can be met by configuring check tables. Thus, the ***canias***ERP system enables requirements of different sectors to be met by arranging check tables differently within the same solution.

Maintenance of Customer and Vendor Basic Core Data

The maintenance of all basic core data related to vendors, contingent customers and customers is performed in ***canias***ERP Basic Core Data. Within basic core data it is possible to record several parameters which present and audit the use of user related information in all fields in the system. It offers many advantages to the user, including creation of vendor and candidate data in customer basic core data, thanks to its fully integrated structure with other modules.

- Arrangement of an automatic and company-specific pricing in order to limit customers or to adjust dependencies for customer/price list groups (connection with ***canias***ERP Sales and ***canias***ERP Purchase module)
- Recording of payment and bank details for situational automatic tax determination (connection with ***canias***ERP Financial Accounting module)
- The possibility to determine standard invoice and standard delivery dates and assignment of a commercial representative for the management of a desired number of company addresses and automatic commission calculation
- Determination of currency, language of correspondence and other standards.

The presence of a direct connection between different system components and the address book in the ***canias***ERP Basic Core Data module offers many other advantages: It is possible to assign pre-established "contacts" to a company or to automatically transfer "contacts" assigned to a company to the address book.

Maintenance of Material Basic Core Data

Similar to customer and vendor basic data, material basic data are created and managed in this module. Here, the concept "material" is used as a general term for products, supplies, consumables, auxiliary materials, services, spare parts or commercial products. For all "material types" mentioned herein, there is a central register.

Some examples for basic configuration features for a material include:

- Definition of (permitted) warehouse addresses
- Determination of material requirement planning data by the production or purchase departments for resupply purposes
- Recording data for use in other modules where necessary. Service, maintenance, pricing data, sales and purchase data, VAT and other income account indicators in financial accounting, stock valuation parameters for a material, etc.

In the Basic Core Data module, units of measure to be used for materials are also assigned (pieces, meter, hour, pallet, etc.). Here, the user can define a relationship between units of measure for each material (for instance, a pallet = 100 pieces, a dose = 4 liters). Automatic calculations can be performed in line with recognized quantity relationships recorded in check tables (e.g. 1 ton = 1000 kilograms).

Usability or availability of a material is checked by material status in the system (active, blocked, at design stage, etc.) or by a supply key where a standard supply channel is concerned (internal production, purchase or supply-purchase).

It allows direct ramifications for the administration of bill of materials and work plans, as well as inventory control in warehouse management and other fields, if the relevant modules of ***canias***^{ERP} are in use. For example, if images or multilingual material texts are required, it is possible to administer those appropriately (internally, purchase, sales, production). Moreover, there is the possibility to assign customer and/or vendor specific names and numbering to the material, in addition to the particularly assigned name. Based on free-definable parameters and the assigning of characteristics, materials can be strongly differentiated if needed.

Other Configuration Capabilities

For a customized installation and operation of the system, the user is offered other configuration capabilities. In summary, these capabilities cover the following:

- All contacts can be recorded in the address book (employees and external business partners). When necessary, authorities are held; it is possible to create personal address books which other people cannot see.

- Within variant management, general variant definitions are created for later use. Here, characteristics and potential attributes thereof can be recorded (e.g. “color” as a characteristic and “red”, “green”, “blue” as attributes). These variants are assigned to relevant products and, when necessary, it is ensured that they are effective in bills of materials, work plans, weighting and pricing. Assignment of constant qualities such as length, thickness or volume is functionally possible. This function enables you to assign more than one attribute to a material number.

- When creating expense centers, it is possible to define expense centers as a main expense center, auxiliary expense center, collective expense center or distributed expense center, etc. In the meantime, settings related to Financial Accounting can also be made (for instance, belonging to a business area, confirmation for charging an expense center directly, etc.)

- Thanks to the capability to record characteristics/classes, users are able to assign certain class information or characteristics to a material, customer or vendor. Accordingly, each data record is distinguished from others, first taking into account whether or not it belongs to a certain class or a characteristic, and then cosidering the attributes of the relevant characteristics.

FEATURES OVERVIEW

- Structuring and authorization from a central point
- Easy and purpose-oriented authorization
- Separating process data and basic core data within the application
- Determining parameters in check tables and adjusting and editing all workflows
- Recording different business logics for each company (in check tables)
- Copying check tables from one company to another
- Easy search function for check tables
- Batch modification features (e.g. for material texts)
- Automatic downloading of exchange rates
- Control for country-specific formats, e.g. value added tax identification numbers

Advice *from our Experts.*

Expert Advice from:
Sebastian Neuruhr // Industrial Application Software GmbH

Consultant // Düsseldorf

The heart of any ERP system is the basic core data. This data is maintained in the module for basic core data management BAS. The special feature of this module is that here, in addition to the usual basic core data like products, suppliers and customers, we also provide check tables. These check tables supply valid, non-redundant values for certain fields like storage locations, material types, currencies and payment conditions. They also actuate – for example in regards to sales document types and entry keys – business processes in all areas of ERP. Once check table information is entered into the system, they can be used immediately and are instantly updated when changes are made. Another advantage of ***canias***^{ERP} BAS is the capability to perform cross-module assignment and management of rights – for example, permissions to determine, from sales documents up to the definition, who may read, edit, add and delete certain documents. This feature of ***canias***^{ERP} is a great benefit for company practice. The check table configuration alone satisfies numerous customer requirements with minimal effort and this unified solution can be applied to a variety of industries.

SYS & DEV

System Administration and TROIA Development Environment

BASIC SYSTEM

The *canias*ERP architecture integrates the running environment and TROIA development environment on a single platform. The source code of *canias*ERP system is delivered along with the software. Therefore, the customer can customize the systems according to their own individual requirements.

Future and Investment Security

On the Java-based *canias*ERP platform, you can choose the operating system and database on which the application and database service will be used almost without any limitation. All JDBC compatible databases, including IBM DB2, MySQL, Microsoft SQL-Server, Oracle and Sybase can be used, adding further investment security. Its flexibility and open system architecture guarantees that the solution will offer the same security in the future.

Use and Management Independet of Location

The application can be used at anytime and from any location via internet. This is also true for all server side management tools and the integrated development environment.

The configuration of the *canias*ERP application server is performed painlessly thanks to configuration files. Changes become instantly effective across the system and without rebooting. The operation logic resides in the application server itself. All updates can be displayed instantly by all clients. Backups, updates and debugging procedures are realized centrally.

Advanced log in options enable you to monitor the system anytime and anywhere and to correct potential problems in system administration rapidly. Furthermore, with system performance logging labels, performance logs can be created to analyze long-term process behaviors in the application server.

Data Security

- Three-tier architecture enables you to separate the database from the user network and internet.
- Owing to the use of an optimized internal communication protocol, it is harder to intervene in the application server.
- Firewalls can be easily incorporated into the system with the flexible and easy-to-use network architecture.
- With VPN and SSL, your data is protected against access over the internet.

High Flexibility over Three-Tier Architecture

The *canias*ERP system has a three-tier architecture consisting of a client, an application server and a database. This three-tier structure offers the following performance characteristics:

- The client layer does not include business process codes and logic. This layer is only responsible for operation of the user interface. Hardware requirements of the client are thus low.
- With ***canias***ERP Load Balancer, several application servers can operate in parallel. Load distribution with Load Balancer guarantees that performance and security features are continually kept at a constant level.
- The Application server can be scaled for any size of company.
- Optimized communication algorithms reduce data traffic and offer a high transmission rate.

TROIA is a fourth generation (4 GL) programming language developed by IAS. With this programming language, the ***canias***ERP system has been developed as a Java-based company software.

An object-oriented language, TROIA can be learned easily in a short period of time by people with technical competency. TROIA has many similarities to modern programming languages such as Java and .NET. The system can be programmed immediately activated in just a few steps with the most effective database-oriented applications and more than 500 commands.

The TROIA development environment is fully integrated with the ***canias***ERP application. No additional software or tool is needed for programming. The source code created with TROIA is recorded and managed in a relational database. The program created by TROIA is converted to a binary code, interpreted by the application server and executed on a server and client in the Java Runtime Environment.

Development of UI Dialogues

UI dialogues and reports used in the ***canias***ERP system can be easily modified or re-created. New UI dialogues and reports can be created with the UI dialogue design tool within TROIA. Buttons, database fields, check boxes, graphic elements, charts, images, etc. are standard components within TROIA. These components can be positioned easily with the drag and drop method on a dialogue box screen and stored along with desired functions.

Effective Development Process

TROIA Hotline Management System supports all steps in the development process. All changes made in the scope of a development process are recorded thanks to this system. TROIA code trace system allows spotting errors with the help of work flow tracing and contributes to minimizing potential errors during application development.

Individual Report Design

The report design tool contained in the development environment enables to create individual reports easily and quickly. These reports can be created and printed in PDF, HTML, RTF, XLS or plain text formats, sent by e-mail or saved via the ***canias***ERP Document Management module.

Multi-Language Support for Worldwide Use

Another important feature of ***canias***ERP software is the multi-language support provided via the integrated translation tool. With this tool all screen texts and notifications can be converted to all other languages without the need for a redevelopment. All UI dialogues, reports and messages are displayed in the language the user has chosen when the system is logged in. Similarly, all reports can be printed in desired languages (with language code check) With the help of Unicode Support (UTF8 and UTF16), many languages including eastern languages such as Chinese and Arabic are supported.

Customization of the Standard Application According to Company Needs

As a customer with a ***canias***ERP Maintenance Contract, you can have unlimited access to the source code of the application and can thus customize the system as per your requirements. Owing to the transfer concept within TROIA, a change can be made in the relevant function derived from the standard, not in the standard code itself. Therefore, even when customerspecific complex changes are made, conformity of the standard version is guaranteed. In other words, customizations continue to be protected after an upgrade.

Database Structure Independent of Platform

With Online Database Administration (ODBA), database components used in the application such as tables or table indices can be managed and edited with the help of visual tools. Other functions of ODBA include transfer of tables and data within the same database or between different database systems and structure equating between table description and the actual table structure on the database.

Interactive Support with TROIA

Interactive help feature is offered to you during application development with TROIA. Detailed information about the use of commands and functions are explained with examples.

Secure User Authentication

caniasERP offers you an easy-to-use user authentication management feature. Smartcards and one-time password systems can be integrated to the application server. Therefore, user authentication is supported also by the hardware and password piracy prevented. A security server on which RADIUS (Remote Authentication Dial-in User Service) protocol is executed can be connected to the application server. User authentication is also supported by Single Sign On feature in an Active Directory Service by ***canias***ERP SSO gateway.

Flexible Access to the Application

caniasERP offers flexible features that enable to establish connection with the system anytime and anywhere. You can connect to ***canias***ERP server with your laptop computer, tablet or smart phone and work as if you were at the office. You can achieve maximum performance even with the slowest connections thanks to optimized data transfer algorithms and smart data compression features. By enabling your customers, business partners and vendors to access your system, you can include them in your expanded supply chain management system.

FACTS AT A GLANCE

Benefits of integration

The flexible architecture of *canias*ERP system allows easy integration with other systems:

Using JSP and WAP linkers, websites can be linked with *canias*ERP.

The support for service-oriented architecture (SOA) concept allows offering web services to external systems as well as accessing other web services worldwide with the *canias*ERP system. Thus, e-commerce infrastructure is optimized and a significant competitive advantage is gained.

Electronic data exchange with business partners via Electronic Data Interchange and XML enables better and error-free communication; reduces telephone, fax and data communication expenses.

E-mail and SMS receiving and sending features in *canias*ERP supports intra-company and inter-company communications.

With *canias*ERP always on the cutting edge

with increasing corporate growth the requirements on ERP systems have changed. *canias*ERP has an open, scalable and adaptive system architecture that allows an almost limitless flexibility in the design and composition of business processes. By the usage of a single overall solution and the extensive integration of individual modules, companies reach high data consistency and better responsiveness to current developments.

Advantages of TROIA

Open source code, easy to learn and to develop, system architecture supports remote development, platform independence, objectoriented and component-class-based coding development, faster and simple design of user interfaces by drag-and-drop functionality, easy integration with other systems and surfaces, immediate transfer from developed applications to runtime environment.

Infrastructure of the Software

canias ERP

iOS // Android // Mozilla Firefox // Chrome // Inter net Explorer // Microsoft Edge

MES // MDE // Industry 4.0

Report Designer // Dialog Designer // Class Brow ser // Database Administration // TRACE // DEBUG // Execution Profiler

Microsoft Exchange Server // IBM (Lotus) Domino // Google Mail // Kolab-Server

Chart Object // Pivot Object // Gantt Object // Onli ne Help // Instant Messenger // Cockpits // WebContent

HiPath // OpenPhone

Oracle Database // Microsoft SQL Server // My S QL // MariaDB // Firebird

DBS | CTI | SWT | E-Mail | IDE | OPC | WEB

JDBC | TAPI | RMI | POP IMAP SMTP | RMI | TCP/IP | HTTP HTTPS

Platform Independent

- Microsoft Windows Server
- Ubuntu Server // Debian Red Hat Enterprise Linux // SUSE Linux Enterprise Server // CentOS
- OS X Server

- ApplicationServer
- LoadBalancer
- CTI Server
- SMS Gateway
- LDAP-Server
- OneTimeToken
- Apache Tomcat und WebServer
- Web Services Description Language (WSDL)
- FTP Client SingleSignOn

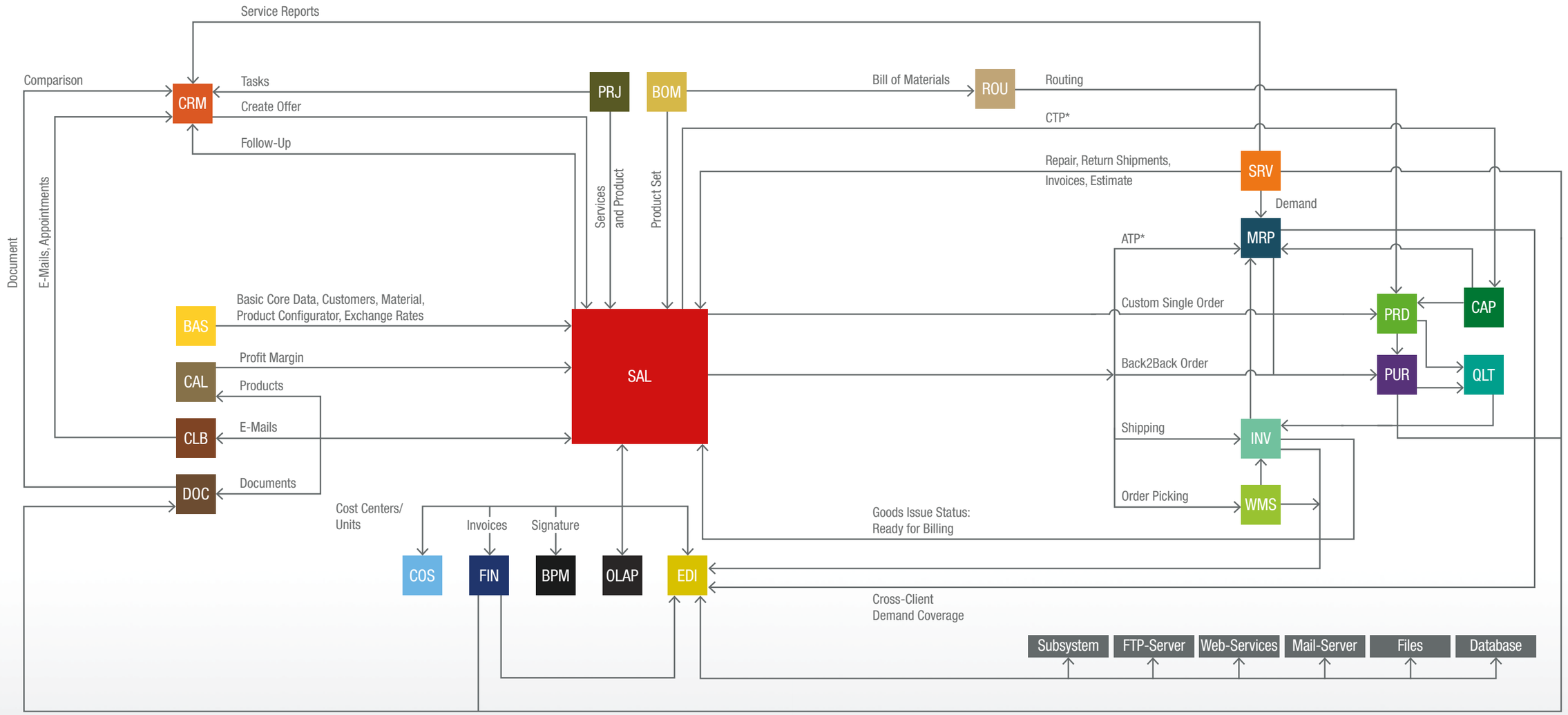
Operating System

Java Runtime Environment

Shown products are a selection of possible options // Exemplary representation, subject to change // The brand names shown are subject to third party rights

Example of the Integration Philosophy

100% PROCESS TRANSPARENCY // 100% PROCESS CONSISTENCY // 100% PROCESS EFFICIENCY



1 // Product inquiry by e-mail
2 // Profile created in CRM
3 // Offer made to prospective buyer
4 // Product configuration
5 // Product calculation
6 // Date of delivery estimate (ATP/CTP)

7 // Confirm offer per approval process
8 // Offer sent by e-mail to buyer
9 // Offer archived with revision security in DMS
10 // Converting offer into order
11 // Running MRP
12 // Generation of purchase requisitions (BANF) for purchase materials and planned orders for manufacturing products

13 // Converting purchase requisition to purchase order
14 // Goods receipt to order
15 // Quality control of purchased materials
16 // Converting plan order to production order
17 // Capacity planning and staff planning
18 // Quality control of endproduct
19 // Order picking and palletizing

20 // Packaging and labeling
21 // Delivery and transport documents
22 // Delivery/distribution to customer
23 // Invoicing
24 // Submission to financial accounting
25 // Receipt of payment and invoice matching
26 // Post calculation

Highlights

Internal TROIA Programming Language

- Fast, simple and effective application development thanks to tracing feature
- Object-based programming
- Easy update for customer-specific codes integrated, graphical development environment
- Multi-language support
- Open application source code
- User-friendly report creation tool
- User-friendly interface
- Interactive assistance
- Code tracing and protocol creation
- Hotline (Development Tracking System)

Three-Tier-Architecture

- Minimizing system requirements and repair costs via thin clients
- Attractive price-performance relationship thanks to the scalable application server, independent of the operating system
- Low data traffic and high transmission rate due to optimized transfer algorithms (RMI)
- Secure, user-friendly network structure and SSL support
- Central application server enabling access from anywhere and from any computer with distributed data storage

System Administration and Configuration

- Application server management anywhere, thanks to web-based structure
- Simple and easy-to-understand configuration file
- All transactions executed over application server
- Load distribution to more than one application server with ***canias***^{ERP} Load Balancer
- Easy installation, update and backup
- Central update of all clients with a single transaction; thanks to web-based clients, no backup or recovery is needed on the client side.
- Easy-to-use user authentication management
- Advanced blocking mechanisms

Flexible Access Options

- Server Access over Local Area Network (LAN), Wide Area Network (WAN) and internet (landline, dial-up, ADSL, GPRS, UMTS,...)
- Mobile system connection (tablet, smart phone etc.)
- XML and Electronic Data Interchange support
- Integrated web services (HTTP, WSDL and UDDI support) and SOA (service-oriented architecture)
- Website connection with JSP and WML

100 Percent Java Based

- Independent of the operating system at both server and client sides (reduces operating and repair expenses)
- Independent of database (supports all JDBC compatible databases)

Security Options

- Isolation of database due to three-tier C/S architecture
- Unique communication protocol
- Secure authentication due to RADIUS protocol
- Authentication with smart card and onetime password
- Configurable VPN and SSL support

Other Features

- Creating reports in PDF, HTML, RTF and plain text formats
- Created documents are compatible with other office applications

Advice *from our Experts.*

Expert Advice from:
Nicolas Ziegler // Industrial Application Software GmbH

Consultant // Karlsruhe

The integrated development environment TROIA in ***canias***^{ERP} and the corresponding module ***canias***^{ERP} DEV work closely together. With this development tool, our users are able to quickly and flexibly adapt and individually expand company-specific processes regardless of location, region and time.

Therefore, it is considerably easier for businesses to create a new report and map required automation needs. Furthermore, TROIA allows them to adapt the functionalities and user interfaces to the requirements of different fields, customer wishes and the specifics of their industry.

An enormous benefit is that users are not disturbed in their daily business by internal key users or IAS consultants during the further development or adaptation of the system; running processes are also left unhindered. Although the modifications are taking place in parallel, the results can be tested with the company's own real data. The underlying software architecture of the delivery standards as well as the safety concept completes the ***canias***^{ERP} DEV module and keeps the software release capable and update compliant.

Our customers can always tailor their processes and accompanying information flows exactly to their current needs and achieve noticeable advantages over their competition in the processing of customer orders.

Module Group

PRODUCT DEVELOPMENT

BOM

ROU

CAL

Bill of Materials
PRODUCT DEVELOPMENT

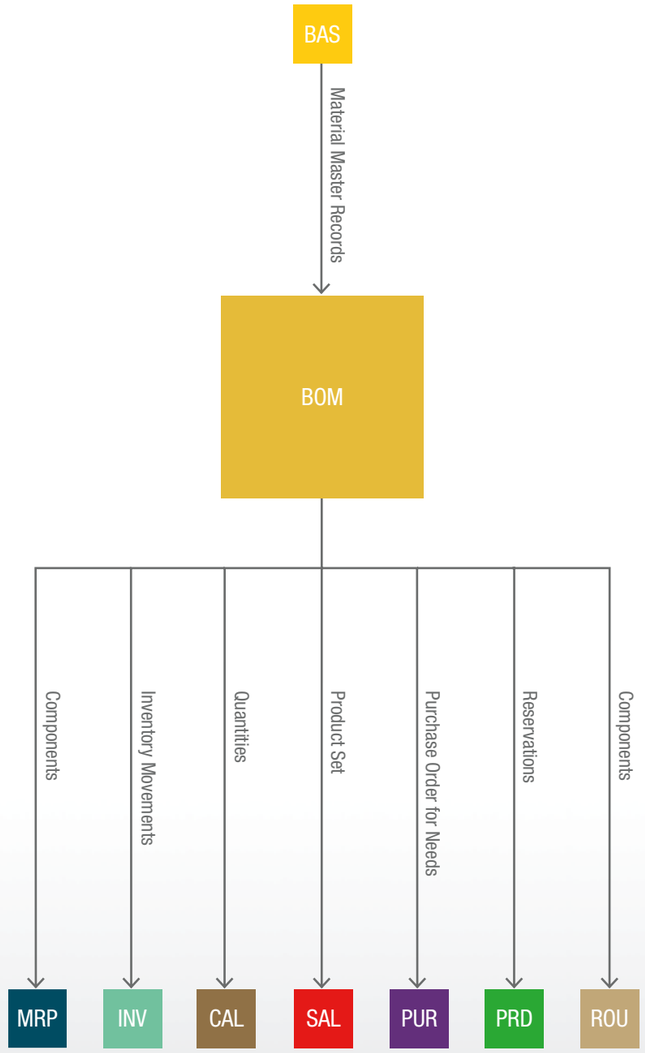
Routes and Work Center Management
PRODUCT DEVELOPMENT

Standard Cost Calculation
PRODUCT DEVELOPMENT

BOM

Bill of Materials

PRODUCT DEVELOPMENT



BOM // Bill of Materials · BAS // Basic Core Data · ROU // Routes and Work Center Management · PRD // Production Planning and Scheduling
PUR // Purchase · SAL // Sales · CAL // Standard Cost Calculation · INV // Inventory · MRP // Material Requirements Planning

*canias*ERP Bill of Materials

The ***canias***ERP Bill of Materials (BOM) module supports effective management of bill of materials. The module works according to the modular structure principle, enabling users to create, copy, edit and check bills of materials. This constitutes a base for Production, Sales and Purchase modules.

In a classic bill of materials, components are combined to form a structure in order to determine relevant parameters for use in the production process.

Qualities related to variants can be linked with a bill of materials. A condition created by the user may affect input components and the configuration thereof. In purchasing, the bill of materials serves as a basis for supply processes. In this process, a list of relevant materials from the inventory BOM may be sent to the producer to use during their service.

The graphic shows the interaction between the ***canias***ERP Bill of Materials module and other modules in the ***canias***ERP system. If bills of materials have been created for more than one production level, the system can be set them to perceive automatically. In connection with the ***canias***ERP Routes and Work Center Management module that enables work center/route management, the system creates a production network and displays this network graphically when desired. Therefore, even complex bills of materials and Routes can be created at different levels and in comprehendible forms.

Validity Definition

Each bill of material that is created is valid in the framework of conditions defined for it. For instance, it is required that components that constitute a product are used according to the size of the product lot. Therefore, various components can be used for different production lots.

A time limitation can be set so that desired structures are defined for certain periods.

Configuration of the structure of the bill of materials also enables the execution of a department-based approval system. Therefore, a confirmation can be given for calculations before confirming production. Similarly, a bill of materials can be used for sales transactions, but may not be used for production. Thus, the entire structuring process is realized and audited in the ***canias***ERP system. Bills of materials can be changed even after production is started and these changes can be transferred to production orders. Therefore, whenever desired, product design and production processes can be executed concomitantly.

Other features of the module are version and alternative creation. Thanks to these features, valid but different versions (subject to time, lot size, etc.) can be defined in the scope of the same or a defined dependency for the same materials and structure groups.

Audit Down to the Lowest Level

The wide range of configuration capabilities is not limited to the bill of materials level. Rather, it may be pursued down to each component level. Freely definable item types offer the user the opportunity to manage each material separately. It is possible to define a constant material of which entry quantity is not subject to the production lot and/or to define a material as an identical product. Entry quantity for each component can be defined classically according to the following example:

For every material quantity X, there must be a component quantity unit Y. These units do not have to be the same. There is also the option to determine consumption quantity for components in accordance with defined formulas.

Comprehensible Structure - Easy to Use

The ***canias***ERP Bill of Materials module is an extremely effective tool while working with sophisticated structures in the scope of structuring and production. Ergonomic modules with important functions combine to form an easy to use system. These include collective modification of components in several bills of materials or all bills of materials, availability of components in every bill of materials or bills of materials of a certain department and addition of new components to desired data records.

The open structure of the ***canias***ERP system enables communication with external systems (for example CAD software). Thereby, bills of materials (even materials) can be created and modified by an external system. This communication is enabled via the Electronic Data Interchange module.

In addition to other features, the ***canias***ERP Bill of Materials Module can display all bills of materials within a structure where bills of materials and Routes are summarized, providing a perfect overview and ease of use.

FEATURES OVERVIEW

- Complete integration with business plans and production
- Validities subject to time and lot size
- Ability to control on a component level
- Expandable bill of materials
- Identical product production
- Alternatives and variants
- Variant management
- Different units of measure
- Formula-based quantification
- Ergonomic use (batch updates)
- Sales and procurement bills of materials (product sets)

Practical Experience from: Georg Börner – Chemisches Werk für Bautenschutz GmbH & Co.KG Bad Hersfeld

Chemical Industry // 140 Employees // 50 Users

Core Competencies of the Company

Georg Börner produces roofing (polymer bitumen and bitumen) as well as hot masses and coatings and has been a reliable expert in the field of roofing and structure protection for many years.

Application of the Module in the Company:

- Arrangement of BOMs with raw material components and amounts
- Variant management through the deposit of individual component and amount factors
- Variant configuration through the definition of attributes in the variant key
- Assignment of raw materials and usage list
- Replacement of components within a BOM (seasonal differences in the use of raw materials)
- Interaction with production planning and material planning as well as data delivery to purchasing and cost calculation

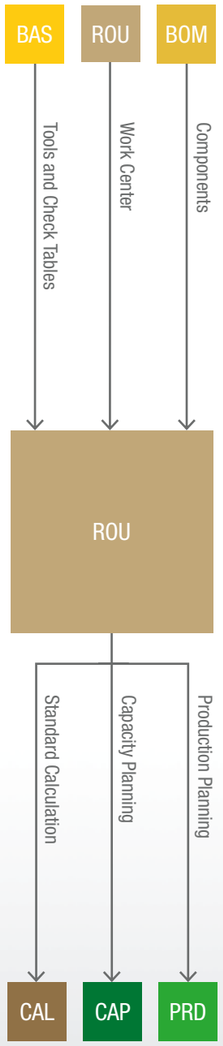
”The BOM management from ***canias***ERP provides the basis for in-house calculation and is an integral part of the inventory management of raw materials and finished products. The BOM module from ***canias***ERP helps us daily in identifying needs and enables precise information about these needs at the push of a button, for example, in which finished products and quantities certain raw materials occur (usage list). The ability to replace components within the BOM is also very helpful to us: our production works with different bitumens depending on the season, and we are able to easily substitute components.

Moreover, Börner has been a staunch advocate of integration: our BOM module is linked to, among other things, the production plan, daily material planning and linked to the variants stored in the material master and supplies both purchasing and cost calculation reliably with information.”

ROU

Routes and Work Center Management

PRODUCT DEVELOPMENT



■ ROU // Routes and Work Center Management ■ BOM // Bill of Materials ■ BAS // Basic Core Data
■ PRD // Production Planning and Scheduling ■ CAP // Capacity Planning ■ CAL // Standard Cost Calculation

Route and Work Center Management with *canias*ERP

The ***canias***ERP Routes and Work Center Management ROU) module enables users to create all Work Centers related to production in the company without exception. In this module, the system automatically recognizes Work Centers selected on a route and in defining routes, the configuration belonging to that Work Center is applied. The scope of this configuration may include determination of capacity parameters such as existing types of services in the relevant Work Center or operating processes different than the factory's schedule.

It is also possible to define classic service types such as manpower, production tools and hardware as well as different types of services such as working hours, personnel assignment, etc.. The definition showing which capacity groups the work centers belong to constitutes the basis for re-determining the timing of operations in production planning. The graph shows the integration of the ***canias***ERP Routes and Work Center Management module to the ***canias***ERP system.

Integration with the General System

The purpose of the module is to support production planning by transferring operations that are configurable at ***canias***ERP Routes and Work Centers module to production. Quality control plans recorded for materials and operations can be included in the relevant operation using the ***canias***ERP Computer Aided Quality module. Therefore, automatic checks can be requested for certain times at relevant points in the production process.

Thanks to integration of Routes created with the ***canias***ERP Standard Cost Calculation Module, calculations may be performed in the framework of all service types present in the operation and that constitute the basis for determination of production costs. Here, use of resources is taken into account. Operations defined are also used in relation to the Service and Maintenance module, but they are used in the framework of a maintenance production order, not for production of materials.

Link to Bill of Materials

In the ***canias***ERP Bill of Materials module that can be used in line with the Routes and Work Center Management module, lists of components regarding production processes are defined. When defining a route, these components and relevant operations are mutually brought together. Detailed planning performed with the ***canias***ERP Routes and Work Center Management module enables users to assign components to relevant operations. This assignment then constitutes the basis for an exact and accurate material requirement planning. The supply of materials can be planned to be realized at the beginning of production or in a special process. These data are utilized in all other production stages up to purchasing.

The variant concept is also available for routes. Therefore, subject to characteristic features specified in relation to a material (under the same material number), operations not included in an alternative configuration can be performed. Detailed planning enables subsequent processes to be carried out automatically in high security and simplifies daily works.

Deadline Planning and Workflow Processes

Each route definition and all transactions related to the relevant route are subject to execution time frames planned by the user for participating units. In this framework, material requirement planning for production and detailed deadline planning, availability of work centers, deadlines for material supply and (if any) purchase orders for services, are planned.

Route definitions that are subject to time or size of the lot to be shipped are created taking into account subsequent operations and the production process that is actually to be carried out. A production order sets a deadline for an operation level based on formulas recorded in the system. The standard scope includes the feature of estimating the time period for transfer from a production center to another, taking into account waiting and interruption periods.

Convenience and Flexibility

When a bill of materials is expanded, route description can also be expanded in parallel. This operation is performed in the production order or in the route definition that updates, upon request, production orders not yet confirmed during the recording procedure. A history for all routes and versions of the route at different times can be kept.

Creation of alternatives offers a general freedom of choice. In addition, these may be linked to certain lot sizes and under some circumstances, enable a certain quantity to be used at another machine. The ***canias***ERP Routes and Work Center Management module enables the routes/work centers in the ***canias***ERP system to be managed easily and flexibly.

FEATURES OVERVIEW

- History creation for routes
- Alternative and variant routes
- Planning different types of service
- Use of programmable tool
- Integration with Quality Management and Maintenance Management module
- Integration with Standard Cost Calculation and Production module
- A calendar specific to the work center
- Disassembly planning
- Production definition
- Validities subject to lot size
- Assignment of work-specific components
- Defining expandable routes

Practical Experience from:
Georg Börner – Chemisches Werk für Bautenschutz GmbH & Co.KG
Bad Hersfeld

Chemical Industry // 140 Employees // 50 Users

Core Competencies of the Company

Georg Börner produces roofing (polymer bitumen and bitumen) as well as hot masses and coatings and has been a reliable expert in the field of roofing and structure protection for many years.

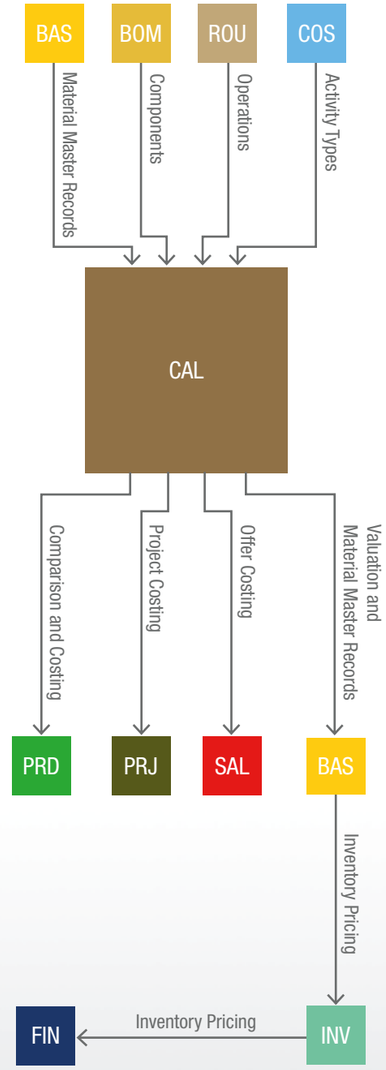
Application of the Module in the Company

- Arrangement of work centers (production plants, cost centers)
- Arrangement of work schedules and assignment of bill of materials components
- Integration with bill of materials management and cost calculation
- Determination and planning of activity types
- Creation of alternative routes
- Management of past work schedules

"Without work centers there is no work plan, and vice versa. Using the ***canias***^{ERP} module ROU, we have mapped all work centers of our manufacturing process exactly, and with respect to work schedules. In every work schedule, the components of the bill of materials are assigned to the individual production steps, which in turn serves as a reliable basis for an accurate scheduling of materials and resources. With the detailed planning in ***canias***^{ERP} ROU we also achieve an important prerequisite for a perfectly functioning estimate, which accesses all activities logged in the work schedule in order to determine the production costs. The modules for bill of materials, routes and work center management and cost calculation work closely together and simplify our production planning significantly."

CAL Standard Cost Calculation

PRODUCT DEVELOPMENT



CAL // Standard Cost Calculation ■ BAS // Basic Core Data ■ BOM // Bill of Materials ■ ROU // Routes and Work Center Management ■ COS // Costing
SAL // Sales ■ PRJ // Project Management ■ PRD // Production Planning and Scheduling ■ INV // Inventory ■ FIN // Financial Accounting

Standard Cost Calculation with *canias*ERP

The ***canias***ERP Standard Cost Calculation (CAL) module calculates the production cost related to a unit of a certain product. The basic data to be used in calculation are the data pertaining to bills of materials, routes and service types.

Due to complete integration with the general system, there ia a smooth data interchange between the ***canias***ERP Standard Cost Calculation Module and other modules. The interoperability of ***canias***ERP Standard Cost Calculation Module with other modules is shown schematically in the graph.

Pre-Requisites in Relation to Calculation

The primary data necessary for calculation come from the modules relating to management of bills of materials and routes. Necessary components and quantities are defined in the bill of materials. In Routes and Work Center Management, data such as necessary operations and time spent for production are defined. Furthermore, the pricing for various components and semi-finished product types can be set in the price section. When using moving average price or final purchase price for purchased raw materials, production costs retrieved from calculation can be taken into account for internally produced semi-finished products.

For activities explained in the route, such as machinery, workmanship or lead time, an activity record for each relevant cost center can be defined and, with the help of the indexing feature, more than one activity record can be defined for the same cost center. In addition, constant and variable rates in the activity records enable a flexible pricing.

It is possible to create the required number of calculation diagrams in the ***canias***ERP Standard Cost Calculation module. In each diagram, which activity records and which prices belonging to components will be taken as a basis for calculation are defined separately. In addition, it can also be defined whether additional cost records (e.g. general material and production costs) will be taken into account or not and if so, which amount will be taken account.

Initiation of Calculation

In the ***canias***ERP Standard Cost Calculation module, calculation for a certain product or collective calculation for more than one material, can be executed. In collective calculation, materials selected according to parameters specified in prerequisites are taken into account.

The calculation can also be started from other modules. For example, when creating an offer in the ***canias***ERP Sales module, an offer cost or project costs can be calculated in the ***canias***ERP Project Management module as well.

Determination of Parameters for Calculation

Irrespective of the module with which the calculation will be started, various parameters can be determined for calculation. Among these parameters are the calculation schema used or validity date data, price data, activity data, bill of materials and routes.

Taking a breakdown of a multi-level bill of materials and writing the result of calculation as a new standard price to material main data can also be parametrically set.

Evaluations and Analyses

The ***canias***ERP Standard Cost Calculation module offers comprehensive evaluation and analysis capability. Therefore, lists can be created to detect and analyze potential errors in a collective calculation (e.g. missing information in material main data or route). Furthermore, results of different calculations can be compared with each other with a cross-check. In the ***canias***ERP Standard Cost Calculation module, calculation displays may be defined to emphasize certain issues in the scope of calculation.

Connection with other Modules

Integration of the ***canias***ERP Standard Cost Calculation Module with the general solution guarantees use of centrally managed up-to-date data in each calculation initiated. In return, the Standard Cost Calculation module provides information to other modules, such as revaluation prices relating to calculated materials. When a new standard is written on material main data, it provides basic data for stock valuation in the ***canias***ERP Inventory Management module and valuation in financial accounting.

FEATURES OVERVIEW

- Single calculation and collective calculation
- History tracking
- Simultaneous management of different versions
- Multi-level calculation with multi-level bill of materials
- Constant and variable rates for activity records
- Definition of required number of freely configurable calculation schemas
- Determination of free parameters for the following:
  - Activity types
  - Price fields
  - Material types
  - Additional cost types
- Calculations with user-defined formulas
- Key date calculation by taking into account information from the following:
  - Bills of materials
  - Activity types
  - Prices
- Calculation comparison
- Calculation subject to variant
- Comprehensive evaluations

Practical Experience from: Georg Börner – Chemisches Werk für Bautenschutz GmbH & Co.KG Bad Hersfeld

Chemical Industry // 140 Employees // 50 Users

Core Competencies of the Company

Georg Börner produces roofing (polymer bitumen and bitumen) as well as hot masses and coatings and has been a reliable expert in the field of roofing and structure protection for many years.

Application of the Module in the Company

- Calculations provide information about material groups, base quantities, cost centers, workplaces, production costs, additional charges as well as quantities and prices (from the BOM) and much more
- Generation of sales statistics at the press of a button
- Creation and filing of activity types and rates
- Automatic execution of calculations in a batch method
- Creation of cost comparisons between two periods
- Determination of raw material pricing
- Evaluation of average annual performance of production (impact on production/equipment costs and pricing of finished products)

”The standard cost calculation module from ***canias***ERP provides us with current and meaningful information at any time – about costs, production volume, sales figures, profit margins and performance, as well as about the development of costs per production facility and cost center. By considering the purchasing costs of raw materials and the selling prices of the Börner products on the market, we have a comprehensive overview of our cost and performance management and are able to react very quickly. This way we are able to, for example, determine the average annual performance of our production with regards to existing vulnerabilities and signal a need for optimization. In addition, it offers us cost comparisons of different periods – in terms of direct cost, full cost, average cost and quantity sold or sales – that are necessary for giving transparency to the evolution of material costs over time. Through the use of ***canias***ERP, beyond the area of cost calculation, we are always flexible and up to date.”

Module Group

SALES

SAL

CRM

SRV

RTM

Sales
SALES

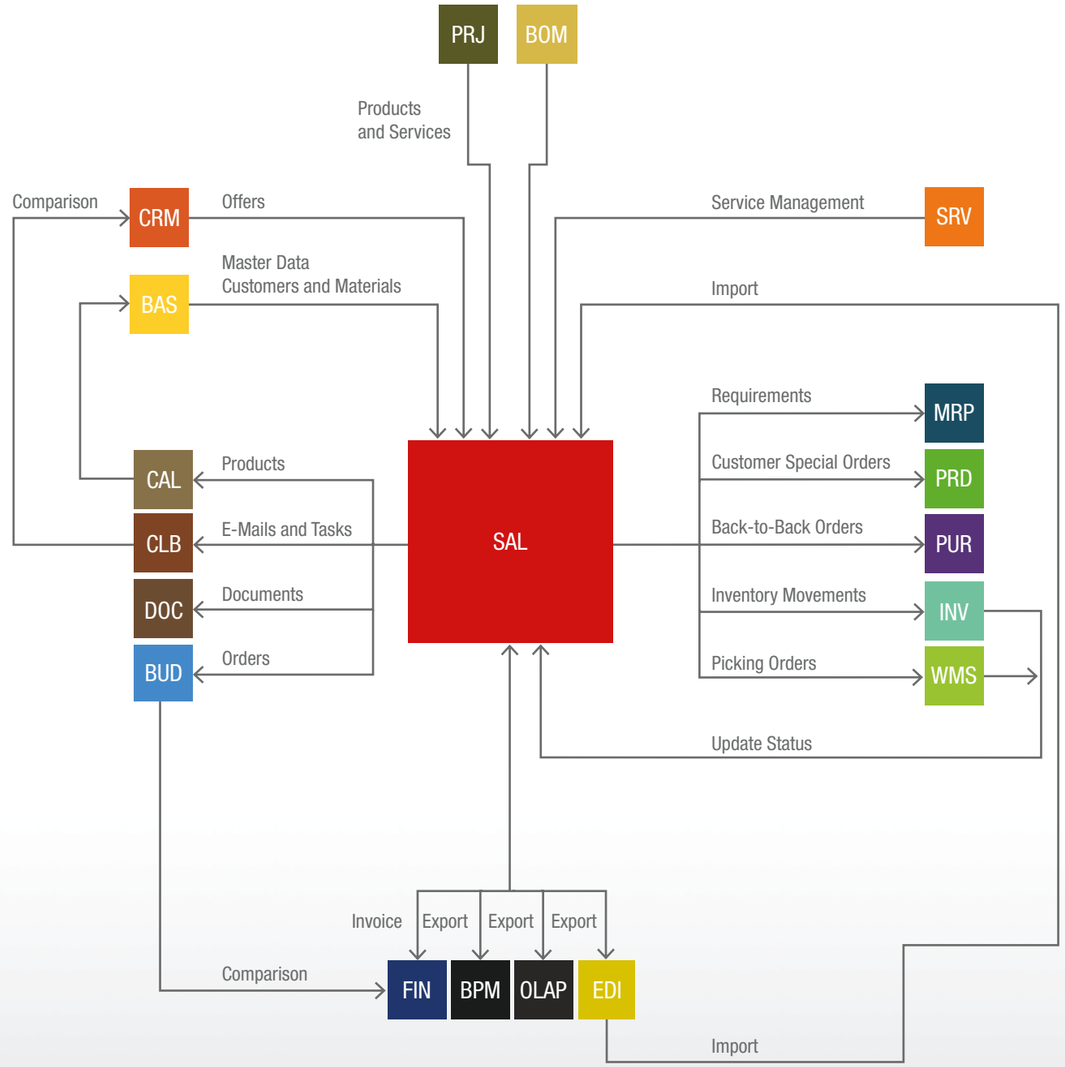
Customer Relationship Management
SALES

Service Management
SALES

Retail Management
SALES

SAL Sales

SALES



PRJ // Project Management · BOM // Bill of Materials · CRM // Customer Relationship Management · BAS // Basic Core Data · SRV // Service Management
CAL // Standard Cost Calculation · CLB // Collaborator · DOC // Document Management · BUD // Budgeting · MRP // Material Requirements Planning
PRD // Production Planning and Scheduling · PUR // Purchase · INV // Inventory · WMS // Warehouse Management System · FIN // Financial Accounting
BPM // Business Process Management · OLAP // Online Analytical Processing · EDI // Electronic Data Interchange

Sales with *canias*ERP

The *canias*ERP Sales (SAL) module enables user to create all processes within the scope of sales. The module is fully integrated with the *canias*ERP system and hence, contains several processes that overlap with the other modules in the software. The connections of the sales module are described in the graph in the previous page.

Order Procedures

Defining document types and item types on demand enables a company to customize a module specific to the material items whose inventory is not tracked, service items and printable items are only a few of the item type configuration capabilities. In addition, delivery conditions such as insurance, freight or shipment can also be managed in sales documents.

Due to the definition capabilities relating to payment plans, payment processes and notices are prepared in the most convenient manner. According to the customer's main data, estimates are made for all payment orders that are expected and these estimates are transferred to financial accounting. Here, not only discounts and due dates, but also payment periods (e.g. financial leasing) and central arrangements are matched with each other.

Risk assessment in relation to sales transactions can be performed in detail within the *canias*ERP Sales Module. During this process, not only pending collections, but also the value of uninvoiced delivery notes and undelivered orders are taken into account.

Inventory

Due to connection with the *canias*ERP Warehouse Management System module, the sales department has an overview of all inventory types, from existing and reserved inventory at warehouse addresses and locations, up to inventory that has not yet undergone the quality control process. Creation of reservation and movement operations of consignment stocks at the customer and vendor side that are subject to an order or independent of an order are also included in the standard scope of the *canias*ERP Sales module.

Due to its connection with the Material Requirement Planning module, the Sales module enables users to make an inventory status estimate at the time of an upcoming customer delicery date. Therefore, not only the inventory status at the time of order, but also the inventory status at future dates can be displayed in the Sales module.

In case the inventory fails to meet the order demands, a simulation can be carried out with the Production Planning and Scheduling module and information about potential production deadlines and availability of necessary components can be obtained.

Pricing

The Sales module offers numerous capabilities for pricing. Item-related parameters that are included in price lists and are definable by the user affect decision making in the multi-step pricing system to a great extent.

The pricing system has been split into four hierarchy levels, starting with material-customer relationship and material condition groups and ending with a price list relationship that includes quantity scales and discount scales. This framework covers a discount analysis as well as dynamic selection criteria and collective price surcharges.

A time constraint can be set for these price lists and thus, price strategies can be planned beforehand and kept in the system. For defined strategies, historical information about the relevant price lists can be accessed. In addition, according to the rank of importance in pricing policies, the sequence of use and continuity of price strategies planned by item type in the sales document can be audited.

Customer Reports

The *canias*ERP Report Design tool offers the user the ability to change the format of documents. Thereby, the user can design his/her own layouts. Document reports include all information that has been presented within the system and that can be printed as a PDF document. In addition, customer-specific document designs can be created, saved and, when necessary, assigned directly to a customer for use. In all sales documents prepared for the customers, default texts defined in check tables can be used. These can be arranged and assigned according to document type or customer.

In addition, existing documents can be translated to various languages and made ready for printing. All documents can be sent via e-mail. By connecting a fax server, documents can be sent via fax. All documents are centrally recorded in the *canias*ERP Document Management module and when necessary, are kept with the integration of a revision-protected memory environment.

Variants and Customer Products

Variant management in the *canias*ERP Sales module has been created with a straight hierarchic structure and is divided into sub-sections with variant keys that represent the relevant variant qualities. The variant key is created once and these keys are assigned to materials. For each variant, attributes suitable for the determined target can be selected. These attributes are already verified through system checks for internal consistency.

Since the final price can be dependent upon the variant, variant data may also be effective, apart form other conditions, in pricing relating to a material in the *canias*ERP Sales module. The staging of variant attributes in terms of price-linked and non-price-linked features contributes to a flexible and transparent price check.

In the *canias*ERP Sales module, in addition to creating a variant for a material, it is possible to create materials specific to the customer.

In the first process mentioned, sales material has characteristic values defined by the customer which may affect the pricing process and the subsequent supply or production processes. Creating a customerspecific material is a very comprehensive concept. Here, a new design can be initiated from a similar material as part of the sales process. Steps toward the creation of a material which require confirmation can be initiated and audited by the relevant departments every time through the *canias*ERP Process Management module. The connection of Sales with the *canias*ERP Calculation module enables users to perform calculation for a material directly in order to obtain potential delivery date and price data during the customer demand stage.

Analysis and Control

Sales data can be evaluated by dividing information into materials, customers, orders or invoice types in the *canias*ERP Sales module.

The connection of all documents with each other may then be examined. This makes it easy to undestand the process that starts with the offer, continues with delivery note, return delivery note and ends with the invoice.

With the help of the system interface that enables export of data from data warehouse, ERP data can be provided to BI (Business Intelligence) tools. Data exported from the *canias*ERP system is recorded in the central database of BI tools and can be used for different assessments.

Integration

The *canias*ERP Sales module supports all sales processes. In this module, document types such as offer, order, delivery note and invoice can be created. All document and information flow systems can be tracked by the system at any time. The *canias*ERP Sales module can also be used as an independent module. However, users will get the most from this module only when they use it with other *canias*ERP modules.

FEATURES OVERVIEW

- Batch and serial number management
- Offer calculation
- E-mail integration mail-to-order and order-to-mail
- Archiving capability for all documents (integrated document management)
- Automatic PDF printout (with preview option)
- Multi-stage pricing system
- Delivery plan and contract management
- Payment plans and discount management
- Creating a revised offer
- Advance payment invoice (prepaid invoice) concept
- Agreements (quantity/value)
- Consignment concept
- Sanction check
- Commission tracking
- Packing lists
- Weight lists
- Rent concept
- Advance payments
- Discount management
- Buy-Sell (back-to-back sales)
- Signature arrangement
- Proforma invoice
- Product sets
- Reservation concept

Advice from our Experts.

Expert Advice from:
Benedikt Hirt // Industrial Application Software GmbH

Senior Consultant // Karlsruhe

The *canias*ERP sales module SAL supports sales though its excellent evaluation options: For example, you can easily identify successful products by factors such as dates sold, price or buyers, as well as see the top customers and top-selling materials at a certain point in time.

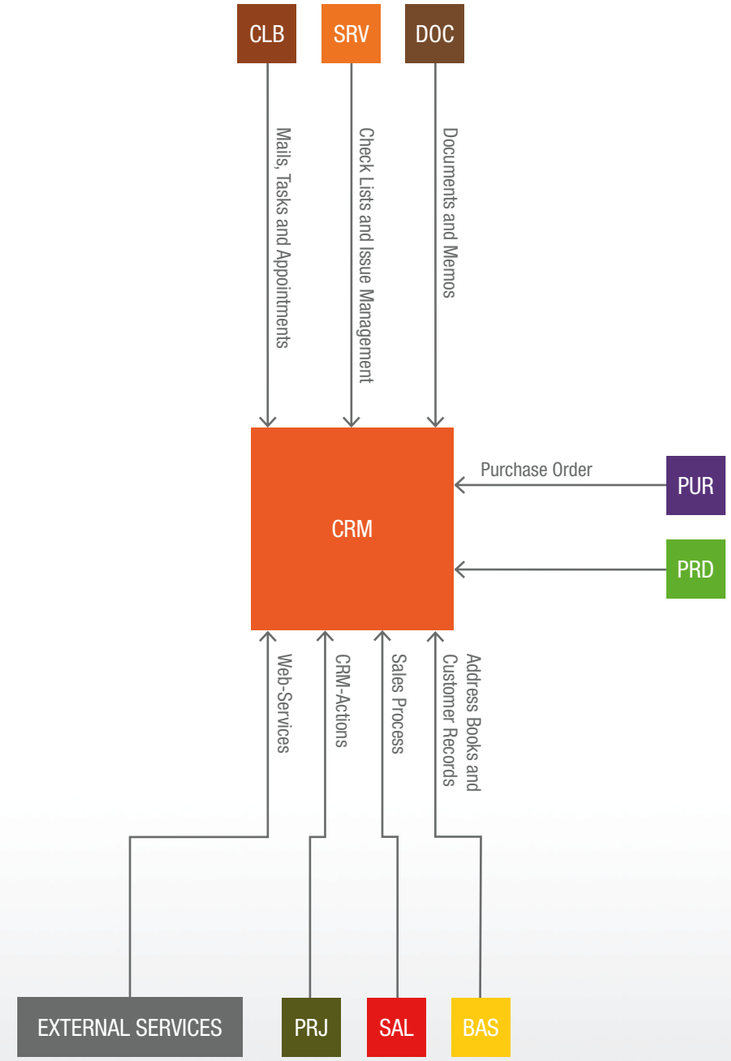
Flexible price determination is another advantage of *canias*ERP SAL. This can be designed according to the current company-specific requirements and can be adjusted as needed at any time. For example, the system allows multilevel pricing and considers individually defined parameters, price strategies and discount scales.

Furthermore, the sales module collects all sales documents in one central place and allows the user to see simple information about the current status and collective document flow of an order at any time. The complete integration of *canias*ERP SAL with other ERP areas – i.e. enterprise resource planning, scheduling, document management, e-mail delivery and production – results in smooth processes and integrated information flows in everyday business. Comprehensive networking ultimately means significantly more stable and transparent processes and increased efficiency across several departments.

In addition, *canias*ERP's extensive customizing options make sure that the Sales module can be quickly adapted to new requirements and grow with the company.

CRM Customer Relations Management

SALES



■ CRM // Customer Relationship Management ■ PUR // Purchase ■ PRD // Production Planning and Scheduling ■ DOC // Document Management
■ SRV // Service Management ■ CLB // Collaborator ■ BAS // Basic Core Data ■ SAL // Sales ■ PRJ // Project Management

Customer Relationship Management with *canias*ERP

With the integrated structure of the ***canias***ERP Customer Relationship Management (CRM) module, data is recorded and managed centrally. Basic features of the customer relationship management include customization and storage of contact data in accordance with individual requirements, adoption of special approaches to contingent customers and immediate response to developments in the area of customer relationship. Here, the presence of a structured data base is of utmost importance. Data resulting from daily operations of the ***canias***ERP Customer Relationship Management module and other modules are collected in the information pool of the Customer Relationship Management module without spending extra manpower. There is no need to spend a workday for this operation. Examples of this kind of data interchange include that between ***canias***ERP Collaborator, ***canias***ERP Project Management, ***canias***ERP Sales and ***canias***ERP Service Management modules. The integration graphic shows the position of the ***canias***ERP Customer Relationship Management Module within the general system.

Communicative CRM

Every day innumerous pieces of information flow into the system with customer data coming over communication tools like e-mails, phone calls, fax messages, letters and short messages. Data and documents so created are kept centrally in the system thanks to integrations over ***canias***ERP. Data obtained from sales, service and marketing departments, such as histories, contacts, addresses, competitor relations and competitor behaviors, etc. can be used for strategic relationship management.

Analytical CRM

The analytical functions in the module enable customer surveys to be executed using both manual and electronic systems. Thereby, all survey forms can be created in the system. In addition to defining alternative answering means and different weighting criteria, it is possible to prepare open-ended questions. Customer surveys may be assigned, applied and evaluated for certain participants.

The analysis of answers can be viewed as a graph. Here, results pertaining to customers can be obtained by establishing contact with address data.

It is possible that sales opportunities are linked to campaigns, projects, offers, materials or competitors. Furthermore, different views may be presented with respect to sales opportunities that have been defined and checked with the help of a sales opportunity analysis realized on the basis of selected search criteria.

The issue management in the ***canias***ERP Customer Relationship Management module captures all positive and negative feedback and suggestions in order to include customer opinions in the improvement process.

The history feature in the ***canias***ERP Customer Relationship module provides information for the entire communication process that involves the relevant customers or contacts.

Furthermore, “Candidate Customer/Vendor” or current types such as “Customer” or “Vendor” can be created and assigned to the relevant person and all transactions performed with current types since the time of candidateship can be tracked.

Operational CRM

The ***canias***ERP Customer Relationship Management module supports issuance and auditing activities in the entire sales chain from the offer to the invoice. Thanks to the integration of the address book and customer master data, documents can be issued quickly without error and tracked completely.

With the activation of the ***canias***ERP Collaborator, all electronic communication can be transferred to and followed up in relationship management.

Mobile Connection

Use of the mobile application of the ***canias***ERP Customer Relationship module in mobile devices like smart phones, tablets, etc. enables users to create and maintain relevant data also during field service.

The Customer Relationship Management console offers a quick overview of important function fields in the module and enables users to manage responses resulting from such relationships in a more transparent manner. The capability of viewing all communication history independently is an advantage that remarkably facilitating the daily works of an employee in field service.

Integration for a Complete Service

The ***canias***ERP Customer Relationship Module offers companies the opportunity to make better estimates about customers, vendors, candidate customers/vendors and to align Customer Relationship Management module activities with the relevant persons. It is possible to use the ***canias***ERP Customer Relationship Management module as an individual solution, but full integration of the Customer Relationship Management module to the ***canias***ERP general system will bring greater advantages. In this connection, data is managed centrally and contributes to a consistent and integrated operation between the Marketing, Call Center, Sales and Service departments.

FEATURES OVERVIEW

- Fully integrated to the *canias*ERP system
- Action management
- Communication management
  - Candidate customer/vendor, vendor and customer
  - Data maintenance
  - Communication planning, contact history
  - Tele-marketing support
  - Campaign management
  - Multi-mail/letter/SMS function
  - Survey function
  - Customer group analysis
- Integration with the Collaborator module
  - E-mail client
  - Calendar function
  - Task manager
  - Activity manager
  - Authorization
  - Address book management
  - SMS
- Sales opportunities
- Sales campaign management
- Sales staff console
- Evaluations
- Issue management

Practical Experience from: Walter Bautz GmbH Mess- und Spanntechnik Bickenbach

Trade with measurement and clamping technology
13 Employees // 11 Users

Core Competencies of the Company

Sale and consultation of workpiece clamping systems as well as measurement and clamping technology. A competent partner offering comprehensive equipment service and customer service under one roof.

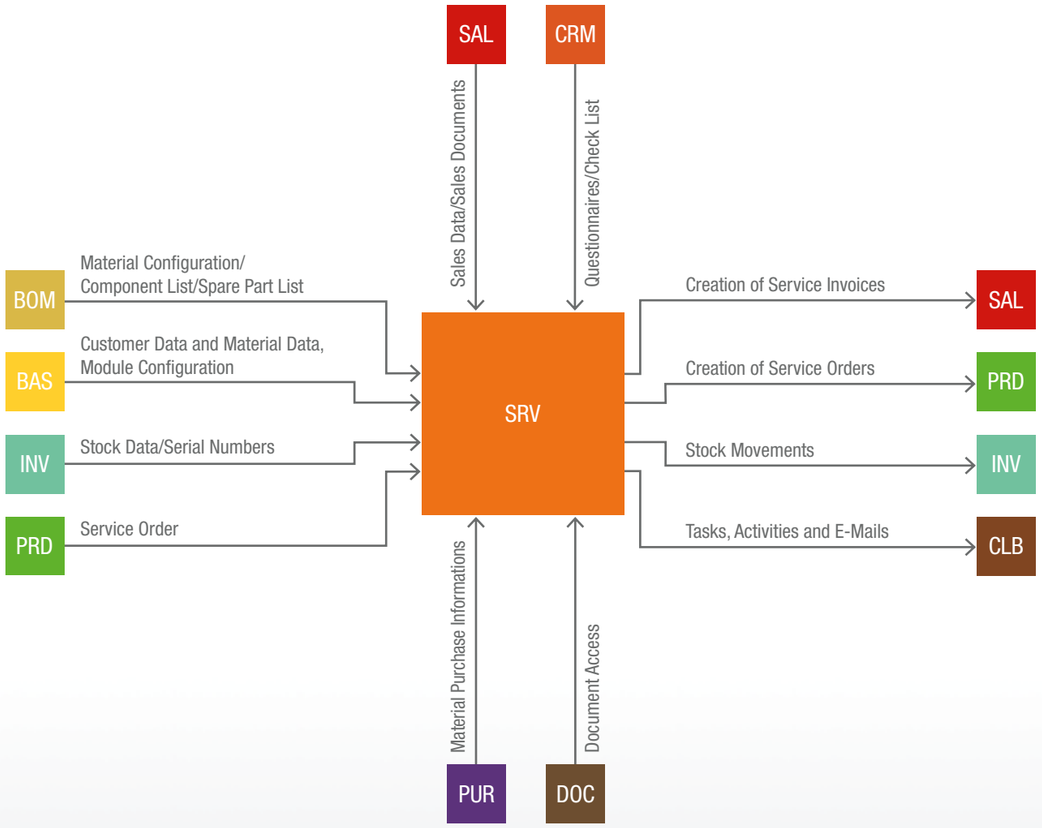
Application of the Module in the Company

- Transaction CRMT01 allows for ideal, daily tracking of customer projects.
- All information is ready at a glance with every call.
- Excellent connection to analytical functions.

”Before the implementation of ***canias***ERP, we managed proposals and contacts in separate systems. Today, our unified software supports all business sectors and enables us as a whole to have leaner and more efficient processes. Implemented functionalities from the ***canias***ERP CRM module as well as their connections and interaction with the sales module ***canias***ERP SAL enable us to easily organize and manage relationships with customers, interested parties and suppliers. The central organization of resubmissions, history, appointments and CRM actions saves us a lot of time in everyday sales situations. Along with analytical functions for evaluation, practical control tools are also made available to us, allowing us to keep our sales on course.”

SRV Service Management

SALES



SRV // Service Management · BOM // Bill of Materials · BAS // Basic Core Data · INV // Inventory · CRM // Customer Relationship Management
PRD // Production Planning and Scheduling · CLB // Collaborator · PUR // Purchase · DOC // Document Management · SAL // Sales

Service Management with *canias*ERP

The ***canias***ERP Service Management (SRV) module has been developed to present, as required, all information available in the system related to service status. The ***canias***ERP Service Management module can be used by companies operating in the service, commerce or production sectors and can be customized in accordance with the requirements of the relevant sector. Full integration of the module with the general system and its connection to other function fields are shown in the graph.

Areas of Use

The ***canias***ERP Service Management module can be used by companies to manage, align and process periodically recurring service activities and by customers to process breakdown notifications. With the help of the service management module, employees can create a protocol regarding service steps and record used materials or replaced parts. The functions of this module also include the creation of checklists and surveys.

On-Site Service

The general technological infrastructure of the software and the functions of the ***canias***ERP Service Management module offer users the opportunity to manage not only service operations at the firm, but also service operations on the customer's side. Therefore, employees can access the application from anywhere or from every usage area, call up customer-specific information and record service-related data such as spare parts and material consumption. The module also enables users to immediately create a protocol for services supplied when it is still at the customer's side. The ***canias***ERP Sales has the feature of assembly and disassembly for devices, machines and asset according to serial numbers.

Evaluations and Analyses

The configuration of the ***canias***ERP Service Management module offers various categorization capabilities to the service staff. Here, various pieces of information may be relied upon for categorization (e.g. project ownerships, departments, employees, priorities, service groups or notification types). All the data in the database are used to perform evaluations and to obtain valuable data that will enable better planning of service activities in the future. Thus, for example, returns can be analyzed according to causes of breakdown and necessary timely audit measures can be taken. The service history offers an instant overview of service status as well as which employee is working on which service case and when. Because all purchase and evaluation data are recorded for each material used, it is possible to perform costing regarding the service statuses. Therefore, an examination can be carried out directly, using the current data set and developments in the sales proceeds related to the service area can be followed up. Due to analyses related to material supply, breakdown and repair periods and the tracking feature offered for products with serial numbers.

Inclusion of External Service Providers

In the ***canias***ERP Service Management module, vendors can be defined as external service departments and can be included in service operations as service providers. If desired, these external business partners may be granted limited access to the ***canias***ERP system, enabling timely enty of information. Management of external warehouses specific to the vendor (e.g. for spare parts) and management of incoming invoices is also possible with this module.

Integration with the General System

All ***canias***ERP modules are fully integrated to the general system. Since all data is centrally managed, a view relating to ongoing and granted warranties, active and past service events or purchased serial numbers can be retrieved from the vendor and customer dataset. If, in the framework of a service event at the Customer's side, the disassembly of a component is necessary, this may be directly transferred to a service order processed via the ***canias***ERP Production Planning and Control module. Necessary information, such as maintenance bill of materials and work plans can be retrieved from the ***canias***ERP Bill of Materials and ***canias***ERP Routes and Work Center Management.

During the creation of sales invoices, all sales data can be inspected due to integration with sales (***canias***ERP Sales): To this end, pieces of information such as active price lists, outline agreements, special discounts and other payment conditions are made centrally available for use. Due to serial number management in the ***canias***ERP Service Management module, users may have a comprehensive overview of all data related to a serial number. At this point, subject to the features of the product, the field functions of the Purchase, Sales, Material Management and Production and of course Service Management modules operate together and support effective process execution.

FEATURES OVERVIEW

- Creating and maintaining service data in product master data
- Creating service notifications and monitoring those that are active
- Offering periodic services
- Arranging due and open service notifications
- Creating and issuing assembly orders
- Serial number management
- Creating service orders
- On-site service (online service notifications)
- Creating service invoices, checklists and surveys
- Incorporating external vendors
- History management for all service cases
- Sales evaluations and analyses (proceeds, costs, repair times, etc.)
- Full integration with the general system

Practical Experience from:
Jeol GmbH
Freising/München

Electron optics, molecular analysis, semiconductor technology, medical technology // 3.000 Employees // 45 Users

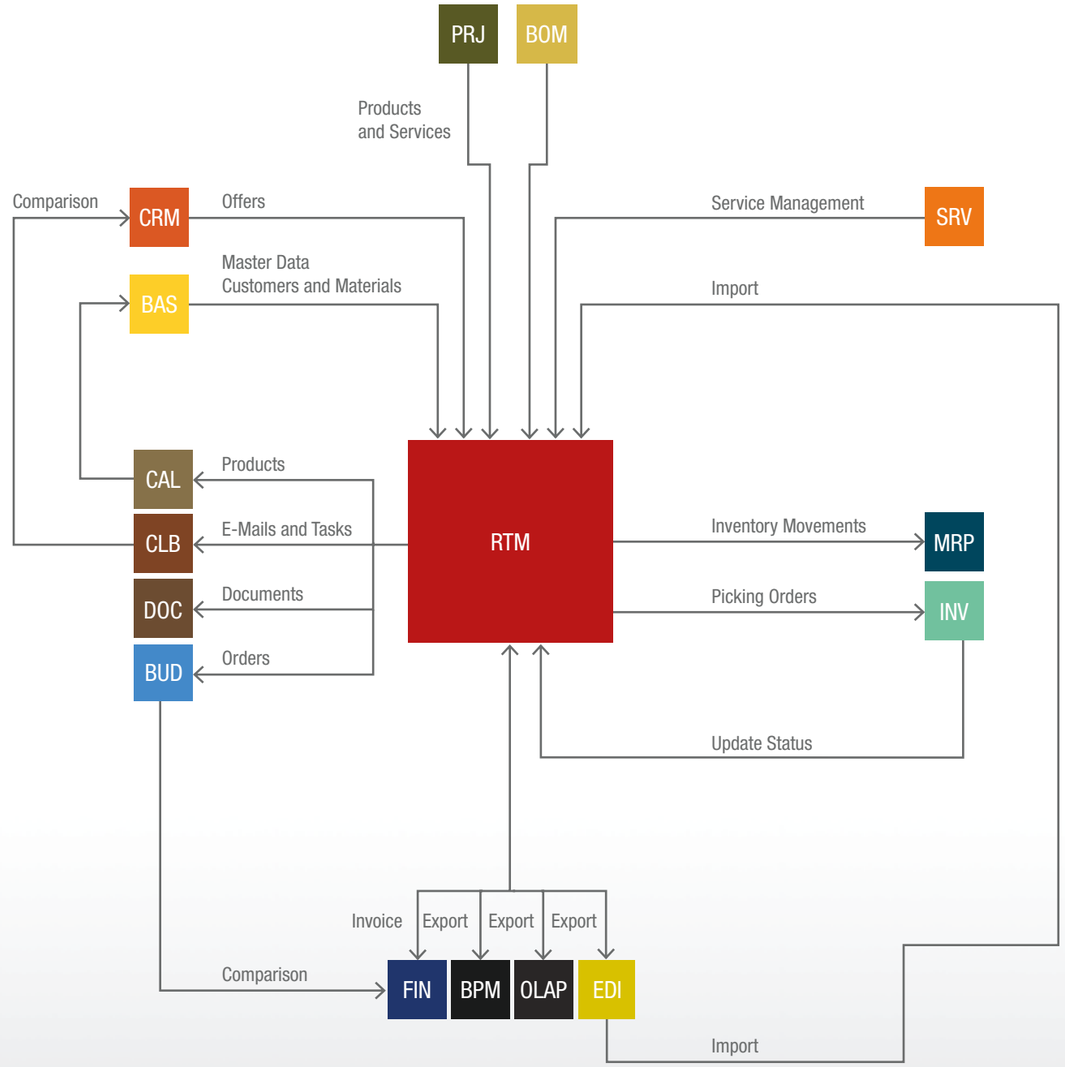
Core Competencies of the Company

Manufacture of electron optical and analytical systems for research and development in the fields of material research, nanotechnology, medicine, biology and biotechnology. Offers consulting, sales, training and technical service worldwide.

"The implementation of ***canias***^{ERP} gave our company great advantages: The connection of the Service Management module and CRM/Customer Relationship Management has made all of our equipment in the customer base and all sales documents visible in the CRM history. The ERP system provides us with such a quick overview of the location, customers and the configuration of each piece of equipment as well as ongoing maintenance contracts. Additionally, the transparency between current sales projects and ongoing service requests has increased greatly due to integration with project management, service management and sales. Furthermore, ***canias***^{ERP} SRV interacts with the purchasing module and groupware for communication, optimizing our processes and information flow across all divisions. Because of this, for example, periodic service planning will be carried out in ERP and be available for all employees to see in the appointment overview of groupware. The ERP-based timesheet service technician, as well as digital recording of service reports has led to the central storage of all work data in the system, which has permitted us to have faster and less error-prone invoicing. The high availability of data in this unified solution allows us to make significantly easier and faster evaluations that we now use in a digital form – and not on paper like before."

RTM Retail Management

SALES



PRJ // Project Management · BOM // Bill of Materials · CRM // Customer Relationship Management · BAS // Basic Core Data · SRV // Service Management
CAL // Standard Cost Calculation · CLB // Collaborato · DOC // Document Management · BUD // Budgeting · MRP // Material Requirements Planning
INV // Inventory · FIN // Financial Accounting · BPM // Business Process Management · OLAP // Online Analytical Processing · EDI // Electronic Data Interchange

Retail Management with *canias*ERP

With the ***canias***ERP Retail Management (RTM) Module, you can manage your stores and control your business processes over one single system. You can easily plan all your needs such as the control of sales processes, inventory management, accounting integration, customer relationships and campaign applications.

With the ***canias***ERP Retail Management module, you can track transactions across the system, such as store inventory and shelf management, shop demand management, transfer between the main warehouse and shops, invoices and other documents, expense receipt, store card support, bonus application, customer personal details, customer information, automatic SMS and e-mail synchronized between different systems.

The ***canias***ERP Retail Management module increases your competitive power by allowing you to generate reports using important criteria such as products, customers, stores, time, country, city, price, cash holdings, etc. At the same time, you can compare stores with these reports and create your product portfolio and marketing strategies.

Retail Transactions

Retail sales have differences compared to other sales procedures. The ***canias***ERP Retail Management module the Sales module and several other modules. With the ***canias***ERP Retail module, you can manage retail sales, replacement and return transactions, enable inventory and transfer movements, prepare the required retail sales and end-of-day reports and view your sales statistics. Flexibility is achieved through the ability to define features on a store basis (document type, warehouse and stock place) as well as on a cashier basis (payment conditions, type and discount key needed for transactions).

Dynamic Campaign Management

The Dynamic Campaign Management offered in this version of ***canias***ERP can create the campaigns you want (e.g. Buy 3 pay 2, 50% discount to 3rd product, etc.) and assure that awards, bonuses and discounts won during these campaigns are used during retail sales. Furthermore, you can award or sell gift cards like a product and cards allow them to be used as a means of discount or payment in shopping. Again, you can define general discount days such as father's day as well as discount days specific to a person such as a birthday.

Analysis and Control

Retail sales data can be dynamically split according to any specification you want (e.g. sales department, product hierarchy, customer, city, etc.) and evaluated, using the multi-report feature within the ***canias***ERP Retail Management module. The connections between documents may then be examined across the Sales module. Therefore, the progress of the process starting with the offer, ontinuing with the delivery note, return delivery note and credit note and ending with the invoice can be followed up. With the Electronic Data Interchange module, sales data may be both imported to and exported from the ***canias***ERP system.

Integration with other Modules

The ***canias***ERP Retail Management module works closely with the Sales Module. Features like post- and pre-sales reports and price policies used in the Sales module can also be used for retail. Furthermore, the retail module is closely tied to all modules.

FEATURES OVERVIEW

- Serial number management
- Sales with variants
- E-mail integration
- Archiving capability for all documents (integrated document management)
- Automatic invoice printout
- Multi-stage pricing system
- Payment plans and discount management
- Product sets
- Material inventory tracking
- Fast customer entry capability
- Pending sales orders
- Tax Free
- Fix VAT key
- Repair application
- Store- and cashier-based dynamic total sales and return data
- Fast purchase invoice entries
- Transfers
- Multiple reports including end-of-day reports
- Sales statistics data
- Installment surcharge
- Round up
- Cashier-based discount authorization
- Gift cards
- Dynamic campaign management

Module Group

PURCHASING

PUR

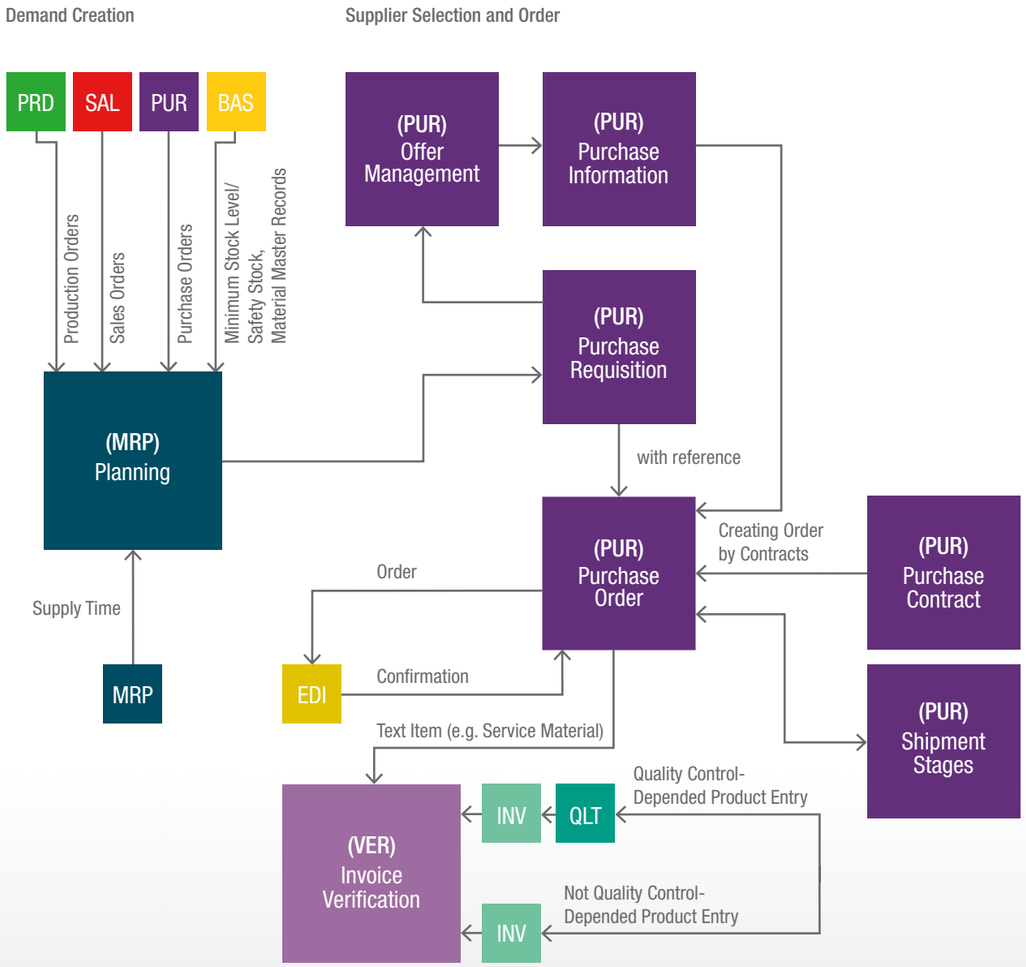
VER

Purchase
PURCHASING

Verification
PURCHASING

PUR Purchase

PURCHASING



■ PUR // Purchase ■ BAS // Basic Core Data ■ SAL // Sales ■ PRD // Production Planning and Scheduling ■ MRP // Material Requirements Planning
■ EDI // Electronic Data Interchange ■ QLT // Computer Aided Quality ■ INV // Inventory ■ VER // Verification

Purchase with *canias*ERP

The ***canias***ERP Purchase (PUR) module offers companies the opportunity to conduct purchase transactions in a fully integrated structure and adds value with the optimization potential it offers. The graph schematically shows the ***canias***ERP Purchase module and its integration to the general system.

Order Suggestion

The ***canias***ERP Purchase module has a structure linked to other modules in the ***canias***ERP system. For example, with the help of the ***canias***ERP Material Requirements Planning module, a purchase request that contains the best ordering time and quantity for a purchase order can be created. To this end, deadline planning based on requirements as well as other parameters such as delivery times, waiting periods for goods (issue of goods) and purchase transactions are taken into account. In case of resulting purchase requests, changes can be made whenever desired. In addition, the system can combine high priority requests with all requests according to time of purchase and other parameters.

Transparent Vendor Information

In each order, the vendor who has minimum cost must be selected according to deadlines. To this end, the ***canias***ERP Purchase module directly compares the purchase data available in the system and lists those that are in favor of the customer. For this purpose, framework contracts containing data such as delivery times, additional cost, discounts, scaled prices, delivery and shipment terms and purchase data records are used as a basis. Purchase requests can be created on the basis of criteria such as lowest price and shortest delivery period. When comparing prices, the required quantities and the price scale associated therewith are also taken into account.

Traceability and Transparency

The ***canias***ERP Purchase module has the capability to assign accounts automatically for purchase transactions initiated due to orders directly opened for customers. Here, the account assignment is triggered by the purchase order request and then transferred to the original purchase order. Therefore, information recorded in the system is compared and a complete process is guaranteed.

Such a connection is also possible in other fields of the purchase request document (e.g. projects, production orders, fixed asset information or cost centers). The ***canias***ERP Purchase module also supports and simplifies the management of shipment stages. This module offers several comprehensive functions from a simple purchase order confirmation to positional tracking of shipment stages of the purchase order.

All Subtleties of Purchase

In the ***canias***ERP Purchase module, not only the purchase order of materials already received in inventory, but also purchase orders of all services and service-type goods that are not required to be received in inventory can be released and audited. Similarly, material supply processes can be managed as standard. Also, information relating to supplying of provided material can be managed smoothly.

Standard features such as additional costs and discounts along with item level can also be documented other advantages include the ability to create different invoices and goods received and integration with the ***canias***ERP Document Management module.

Integration as a Competitive Advantage

When competitive and cost pressures start to increase, this systematic, ERP-based purchase module allows for more effective vendor management, quicker processes and economical results.

Having a fully integrated structure, the ***canias***ERP Purchase module takes into account all parameters that are important for procurement throughout the process and contributes to enhanced transparency in addition to savings.

With evaluations relating to purchase, the scope of purchase is completed and a customization is performed in accordance with existing individual requirements for the analysis of purchase order processes.

FEATURES OVERVIEW

- History tracking for documents
- Archiving of all documents in a document management system
- Explanation text on a document and item level
- Automatic PDF printout with print preview
- Sending orders via e-mail
- Flexible price list and contract management
- Price comparison subject to order quantity
- Electronic confirmation function
- Comprehensive account assignment capability
- Demand management
- In-system Electronic Data Interchange module connection
- Creating purchase order from purchase contract
- Tolerance
- Partial order capability
- Payment plans
- Taking into account additional costs (freight, insurance, customs, packing)
- Checking receipt of goods (quality control)

Advice *from our Experts.*

Expert Advice from:
Ayça Yurttagül // Industrial Application Software GmbH

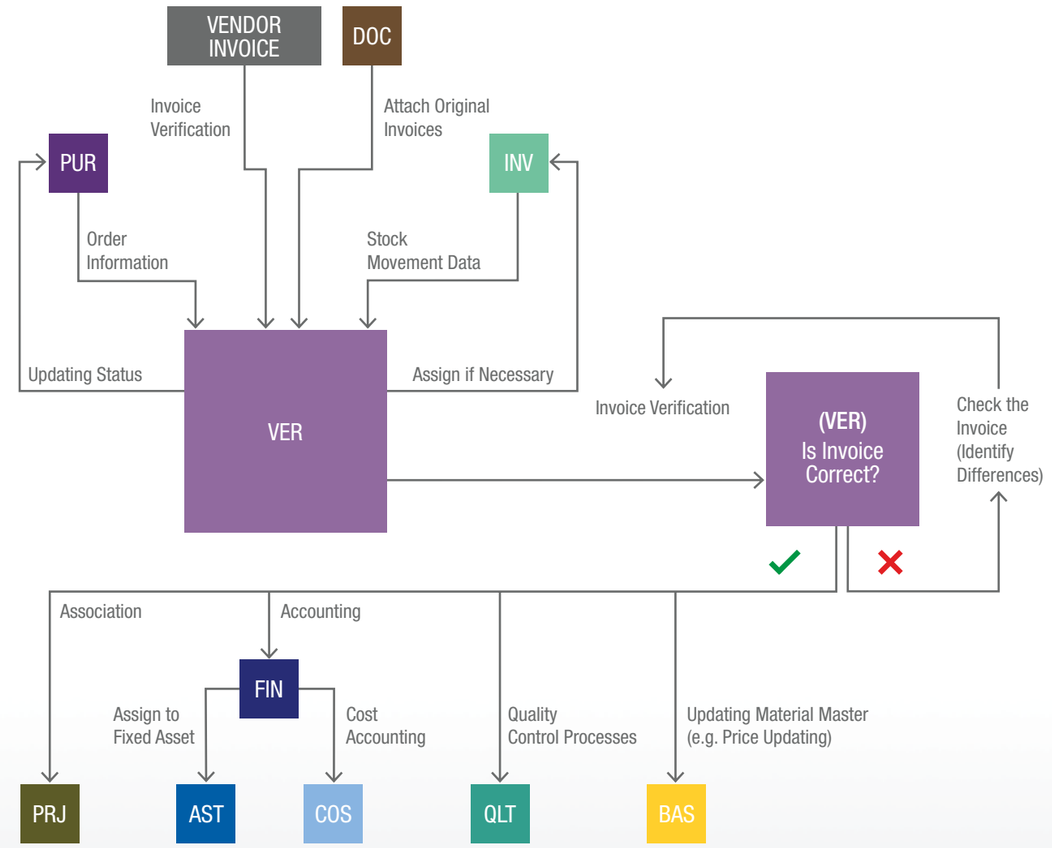
Consultant // Karlsruhe

Cross-industry market changes require new business models. Processes-oriented changes automatically bring with them a change to purchasing structures: Companies may, for example, form purchasing groups or merge company purchases into a central procurement.

The ability to combine the necessary requirements, quickly draw price comparisons and sustainably optimize the supply chain are great advantages of using the ***canias***^{ERP} Purchase module.

VER Verification

PURCHASING



VER // Verification ■ PUR // Purchase ■ DOC // Document Management ■ INV // Inventory ■ PRJ // Project Management
■ FIN // Financial Accounting ■ AST // Asset Accounting ■ COS // Costing ■ QLT // Computer Aided Quality ■ BAS // Basic Core Data

Verification with *canias*ERP

The duty of the ***canias***ERP Verification (VER) module is to verify incoming invoices in order to guarantee proper use of data in the subsequent accounting process. The module aligns the information on the incoming invoice with the information in the system and transfers this to other modules (e.g. the Finance module). The connection of the Verification module with the general system is explained below and shown schematically in the graphic.

Integrated Verification on the Basis of Orders

In order for purchase orders to be fulfilled and subsequently the demanded goods to be delivered, a Purchase order is created in the purchase module and the receipt of goods is recorded in the inventory management module. In order to actualize an integrated verification, a reference to these documents has to be created. In the ***canias***ERP Verification module, users can search the relevant purchase order or receipt of goods easily using the appropriate criteria (vendor number, purchase order number, date, etc.). Here, prices are retrieved from purchase orders and quantities are retrieved from the receipt of goods (with return correction, if any).

After the copying operation is completed, it is checked whether the existing invoice is correct both actually and in terms of accounting. In this connection, it is automatically checked whether the invoiced goods have been received. Also, invoices relating to purchase orders without a goods receipt can be checked. Quantities may also be checked after collection on a value basis (similar to purchase orders involving the receipt of goods).

If any inconsistency is identified by the ***canias***ERP Verification module, the reason for the inconsistency should be clarified and, if necessary, the invoice should be issued again. These types of invoices which involve deviations are „suspended“ in the system in the same way as verification documents whose preliminary entry has been made, but whose processing has not yet been completed. The transaction is expected to proceed and the transfer of such invoices to financial accounting is blocked. When there is no difference, these invoices can be recorded and transferred to the Financial Accounting module as well as other modules. This transaction may be carried out for each document manually or automatically in a collective manner.

Connection with other Modules

The ***canias***ERP Verification module provides information to the connected modules based on documents created during the recording of the invoice.

When an incoming invoice is recorded, the ***canias***ERP Verification module creates an open item in the vendor account in the ***canias***ERP Financial Accounting module. This item is similar to an offer for the implementation of the payment.

Through the assignment to an account as mentioned above, the general accounting data is transferred to the ***canias***ERP Costing module. In addition, it is possible to assign an account to a cost center, additional costs and projects, etc.

The feature of assigning an account to fixed asset numbers enables revaluation calculations to be directly assigned to a certain fixed asset. When newly purchased fixed assets are concerned, incoming invoices can be transferred to the ***canias***ERP Asset Management module after they are financed.

After an invoice is financed, the relevant data is also transferred to the ***canias***ERP Basic Core Data module. Therefore, the last purchase price of the relevant product is updated in the material master and included in the calculation of the last movement price.

The Verification module is also linked to vendor evaluation in the scope of quality control. Due to the module's integration with the ***canias***ERP Computer Aided Quality module, quality control processes such as re-processing and returns are also taken into account.

Of course, connections with invoices recorded in the system can be created thanks to integration with the ***canias***ERP Document Management module.

Manual Verification

It may be the case that not every invoice may not depend on an order. For this reason, invoices can be recorded in the ***canias***ERP Verification module without a reference to an order. To this end, the data in the invoice must be manually entered into the system. Information such as account assignement and cost center, which are related to general accounting items, are kept in the invoice item, whereas information like documents date and payment conditions are kept under the invoice heaching.

Return and Cost Invoices

In case the goods delivered are returned to vendors thereof completely or partially, a return invoice may be created by reference to the order invoice.

Additional cost such as freight, packaging, etc. may be assigned directly to the relevant invoice items or may be distributed proportionally subject to the amount or quantity of items.

Evaluations

All the data available in the ***canias***ERP Verification module are used for price development, price comparison procedures and price analyses.

Advantages of Integration

One of the greatest advantages of the ***canias***ERP system is its high integration level. Thereby, the Verification module assures reaccess to data in the preceding function fields like purchase and inventory management, processes them and sends them to vendor and fixed assets accounting, cost calculation, material master data, quality management and other integrated modules.

The ***canias***ERP Verification module significantly eliminates errors likely to arise due to incorrect entries and guarantees consistency and compatibility of data without compromising manual intervention capabilities.

FEATURES OVERVIEW

- Invoices related to purchase orders or receipt of goods
- Creating manual invoices
- Invoices with different tax codes
- Automatic comparison between purchase order price and invoice price and between the quantity of receipt of goods and the invoice quantity
- Partial invoices, batch invoices and foreign currency invoices
- Suspending the accounting of invoices until they are fully processed
- Credit notes/debit notes on a value and amount basis
- Easy transfer of invoice data to the finance module (manually or automatically in a batch manner)
- Assignment of accounts to cost centers
- Distribution of additional costs
- Price update on the material master

Advice
from our Experts.

Expert Advice from:
Tomislav Zeljko // Industrial Application Software GmbH

Head of Consulting // Karlsruhe

In modern enterprises, the classical invoice receipt inspection goes far beyond what it used to be. Today, it is not enough to just be able to collect the delivery costs, you have to be able to assign various measured distribution keys, such as weight or other amounts, to different document lines. At the same time, demands are growing for forecast and cash flow management. To address this, verification from ***canias***[ERP] offers numerous functionalities and helps companies to adapt to new requirements.

Module Group

MATERIAL MANAGEMENT

QLT	Computer Aided Quality **MATERIAL MANAGEMENT**
INV	Inventory **MATERIAL MANAGEMENT**
MRP	Material Requirements Planning **MATERIAL MANAGEMENT**
WMS	Warehouse Management System **MATERIAL MANAGEMENT**
TRO	Transfer Order **MATERIAL MANAGEMENT**

QLT

Computer Aided Quality

MATERIAL MANAGEMENT

Computer Aided Quality with *canias*ERP

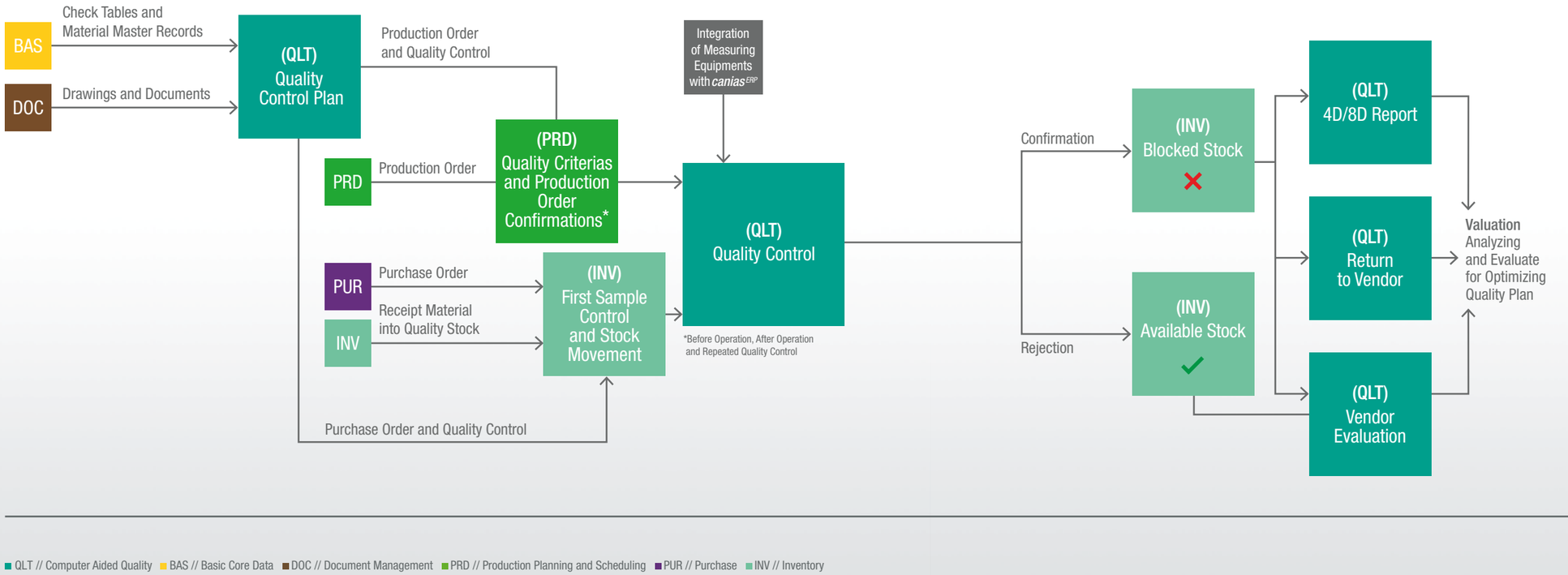
The ***canias***ERP Computer Aided Quality (QLT) module covers computer-aided management of quality control processes. The purpose of a computer-aided quality control system is to minimize the effort required for management activities and to increase transparency, efficiency and effectiveness regarding total quality control management.

The extent to which numerous advantages offered by such a system can be utilized in practice is contingent, first and foremost, upon the quality of the network connection established between the CAQ system and other ERP system(s). A perfect integration enables the process to continue rapidly and effectively, free of the technical risks that often come with numerous interfaces.

The ***canias***ERP Computer Aided Quality module has a comprehensive integration and is a core element of the ***canias***ERP general system structure like all other modules. The following graph shows the integration of the ***canias***ERP Computer Aided Quality module as a process schema.

Quality Control Planning

The data that constitute the quality control process are managed centrally via quality plans. Among the data related to quality control are the control method, control characteristics, control degrees, dynamic changes and error categories. These data are managed via Check Tables and can be recorded prior to any confirmation or whenever desired during a transaction. Quality control related material data transferred to quality planning are managed under material master data. For example, whether a material is to be marked or not for receipt of goods is determined in the master data of the relevant material.



Control Process

The control process is triggered by entry of material stock. Data retrieved from quality plans and material core data during stock entry and the quality control records are used to create the approval record. Materials that are not approved under the quality control procedure are kept separately in the ***canias***ERP Inventory module and may not release stock for processing in the ***canias***ERP modules (e.g. production consumption, sales, etc.).

In addition, controls and periodic operation checks during the production approval stage may be defined via various definitions in the quality plan for the control of production processes. Finally, aside from material quality control, performance values of operations applied at work centers may be subject to measurement.

Quality Control

The type and frequency of control is managed under the control plan. The information that a control is necessary or not is retrieved from the quality control related core data recorded under material master data. Various control characteristics to be determined by experts may be assigned to a control plan. With control characteristics, you can determine, whether a quality control process is to be initiated for a material or not. Additionally, initiation of a quality control process can be managed by dynamic configurations and quality control may beinitiated on an order or lot basis. Also, it is possible to determine sample levels according to past control results. The final stock status of the material is determined as a result of the decision to be made at the end of the control process. Materials whose results are accepted are switched to “usable inventory” status, whereas materials not accepted are taken to a section called “rejected inventory” in inventory management. The scrapping or return to vendor of materials kept in the rejected inventory is ensured with the ***canias***ERP Inventory integration over the ***canias***ERP Computer Aided Quality module.

Connection to Measuring Devices

The ***canias***ERP Computer Aided Quality module can be integrated to technically suitable measuring devices. Using a connected measuring descriptive (yes or no) and variable (measudevice during a control operation, both rement values) results may be recorded under ***canias***ERP Computer Aided Quality. With the measuring device, control characteristics specified for a material are measured and recorded in the system in real time.

Data Reporting and Analysis

Values measured during quality control and many other types of data can be reported. Several reports and graphs mentioned in the quality control literature are available in ***canias***ERP Computer Aided Quality. In addition, corrective and preventive actions may be defined after measurement values are obtained and an 8D report may be presented and error analysis applied. Finally, in addition to quality control results, a vendor evaluation analysis can be performed by combining purchase data fed via the integration of ***canias***ERP Purchase and ***canias***ERP Verification modules.

Integration Right from the Beginning

The ***canias***ERP Computer Aided Quality module is an example of a perfectly integrated internal CAQ system. Due to numerous benefits offered by integrated enterprise processes, efficiency and transparency increases significantly across the entire quality management process.

FEATURES OVERVIEW

- Central quality plans
- Material quality control
- Integrated stock management
- Production process control
- Work centers performance analysis
- Dynamic sample plans (ISO 2859-1/DIN 40080)
- Detailed graphical analysis
- 4D/8D reports
- FMEA, CAPA documents
- Vendor evaluation analysis
- Measuring device integration
- ***canias***ERP Document Management integration

Advice *from our Experts.*

Expert Advice from:
Timur Kücük // Industrial Application Software GmbH

Head of Sales // Karlsruhe

The consistent use of ***canias***ERP contributes to helping many of our customers reduce the interfaces within their IT landscape. In this way, the ***canias***ERP Computer Aided Quality Module replaces, for example, historically grown legacy systems for quality assurance. Thanks to the interface-free integration, all material and information flows synchronize across the range of quality management and are centrally available in the ERP system. This means companies need significantly less time to, for example, access current sales and production data, which considerably simplifies their daily information gathering.

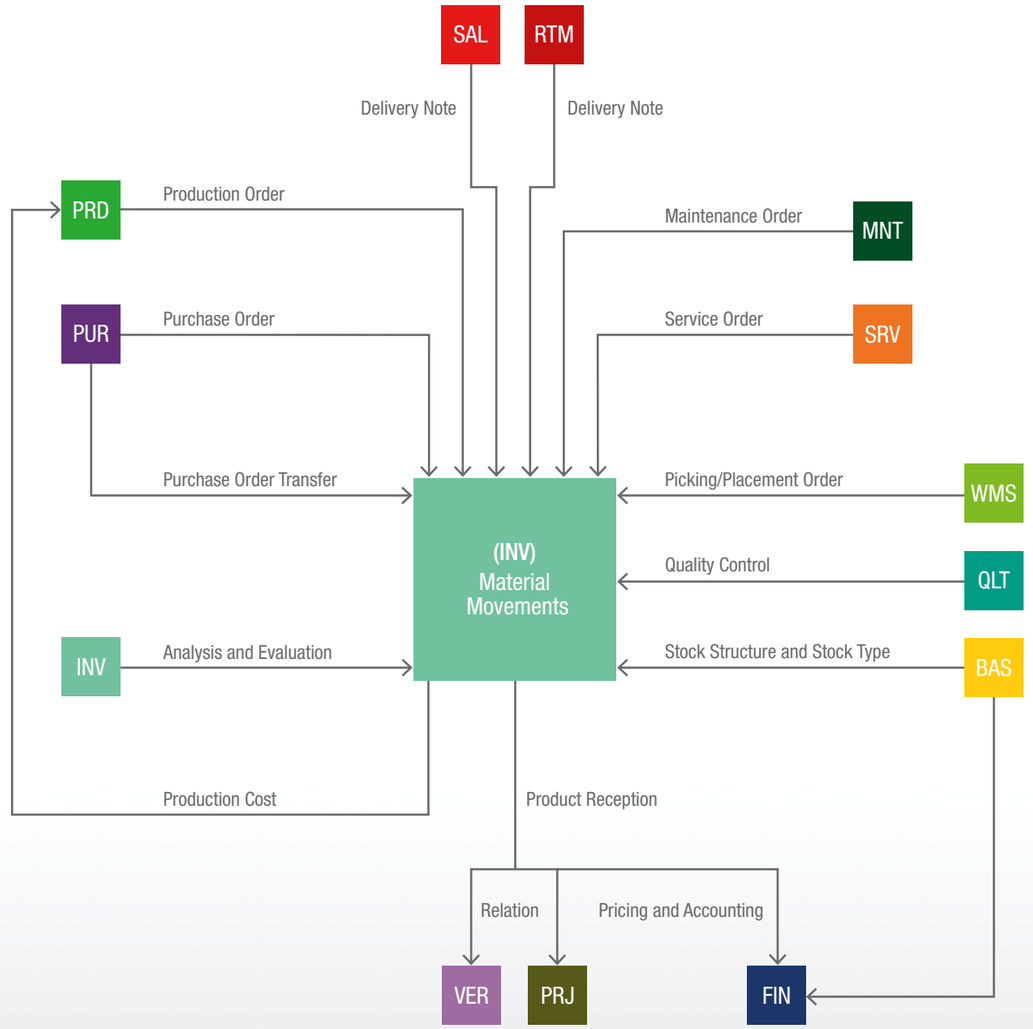
Furthermore, when it comes to usability, we realized that a system with uniform layout and a consistent user interface leads to more acceptance among users.

caniasERP QLT has features that can each be individually adapted and tailored to the specific production processes of our customers.

By realized automatism – for example, during confirmation of production orders – they are in the position to more efficiently handle the attached quality management processes. Also in the area of quality control, links to measuring instruments can be set up with little effort, which in turn saves employees from the manual entry of data.

INV Inventory

MATERIAL MANAGEMENT



INV // Inventory ■ PUR // Purchase ■ PRD // Production Planning and Scheduling ■ SAL // Sales ■ RTM // Retail Management ■ MNT // Maintenance ■ SRV // Service Management
WMS // Warehouse Management System ■ QLT // Computer Aided Quality ■ BAS // Basic Core Data ■ VER // Verification ■ PRJ // Project Management ■ FIN // Financial Accounting

Inventory with *canias*ERP

The *canias*ERP Inventory (INV) module manages the material inventory of a company on the basis of quantity and value according to key dates. The module does not only allow users to record and monitor warehouse inventory, but also provides a detailed overview about past and actual inventory statuses. Due to integration with different processes, not only is transparency assured in relation to material movements and warehouse inventory, but also the entire production chain is also supported from sales and purchase up to service, maintenance and quality control. The graph shows the integration of the *canias*ERP Inventory module with the general system.

Movement Types

All inventory movements can be configured as required with the help of check tables. All inventory receipt, issue and transfers are recorded automatically on a quantity and value basis.

Record Documents for Inventory Movements

Since a record document is automatically created with each stock movement, there is detailed information available in relation to each stock movement. The creation of this document with each change allows all inventory movements to be monitored.

Lot and Serial Numbers

Thanks to the integration of lot and serial numbers, material movements can be monitored completely. Particularly, it is of utmost importance that a complete monitoring is carried out for maintenance and service-related requirements.

More Transparency with Evaluations

As with other modules, the *canias*ERP Inventory module to perform filtering of important data through comprehensive evaluations. Using freely selected search criteria, actual data related to, for example, warehouse stocks or warehouse movements, are split according to individual requirements. In addition, materials can be staged as ABC or D materials according to stock turnover or their value.

Flexible Storage

Due to use of various inventory types and the capability to keep warehouse stocks always up-to-date via different inventory methods, maximum flexibility is assured in the *canias*ERP Inventory Module. With the *canias*ERP Warehouse Management module, rules regarding flexible storage can be defined when short and convenient means are needed.

Mobile Use

The capability of mobile access to the ERP system increases flexibility and efficiency at the warehouse. With the *canias*ERP Mobile Inventory application, mobile data entry devices (MDEs) can be used to initiate and check processes such as purchase, delivery note, transfer or inventory records regardless of the current location. In this method, data is recorded and processed in real time. Contributing greatly to consistency.

Fast Response

With the functions in the *canias*ERP Inventory module and full integration of the module with the ERP system, are necessary adjustment to warehouse operations are made immediatly as required and the user can respond to situations quickly.

Inventory Matching

Each stock movement in the *canias*ERP Inventory module can be priced by choosing from price types such as average cost, moving weighted average lot/serial number based real cost, FIFO and LIFO.

The calculated stock movement prices can be used in various reports and also transferred to and accounted for in the *canias*ERP Financial Accounting module.

Matching Check

The inventory cost is fed by several modules including notably *canias*ERP Basic Core Data, *canias*ERP Production Planning and Scheduling, *canias*ERP Purchase, *canias*ERP Verification and *canias*ERP Sales. The accuracy of inventory costs is contingent upon such integration data being error-free and complete. Inventory cost is calculated correctly using pre-matching control reports, whereas post-expenditure data are calculated correctly using post-matching control reports.

Multi-Accounting Standard

The cost of stock movements can be calculated separately for each accounting standard using the appropriate standard (VUK, IFRS, USGAAP, TFRS etc.). Thereby, results from different accounting standards can be compared.

FEATURES OVERVIEW

- Warehouse records specific to commercial processes; receipt into stock (e.g. for purchase, production, service orders), issue from stock (e.g. delivery note, project, release to subcontractor) and stock transfers
- Hierarchic structure for warehouse and stock places
- Lot policies and serial number management
- Stock count and stock arrangement
- Stock movements to cost centers, for a past or future date
- Management of different stock types such as stock in quality control, blocked or available stock
- Management of consignment, supply and customer order stocks
- Obligatory record of stock changes
- Parallel stock records with two units
- Automatic printout after stock movement
- Authorisation by users/user groups
- Material-to-material transfer
- Batch stock and assembly/ disassembly movements
- ABC-D analysis
- Safety stock change
- Stock turnover and stock aging
- Parametric barcode printing
- Mobile stock management
- Cost deviation analysis
- Standard – Actual cost comparison
- Various stock matching types (e.g. moving weighted average, FIFO, real cost)
- Pricing and costing of stock movements using different accounting standards (VUK, IFRS, USGAAP, TFRS etc.)

Practical Experience from: Carbolite Gero GmbH & Co. KG Neuhausen auf den Fildern

Manufacture and trade of high-temperature furnaces
35 Employees // 25 Users

Core Competencies of the Company

Development, production and sales of high-temperature furnaces – from annealing, tubular, chamber and portable cover furnaces to application-specific furnaces.

Application of the Module in the Company

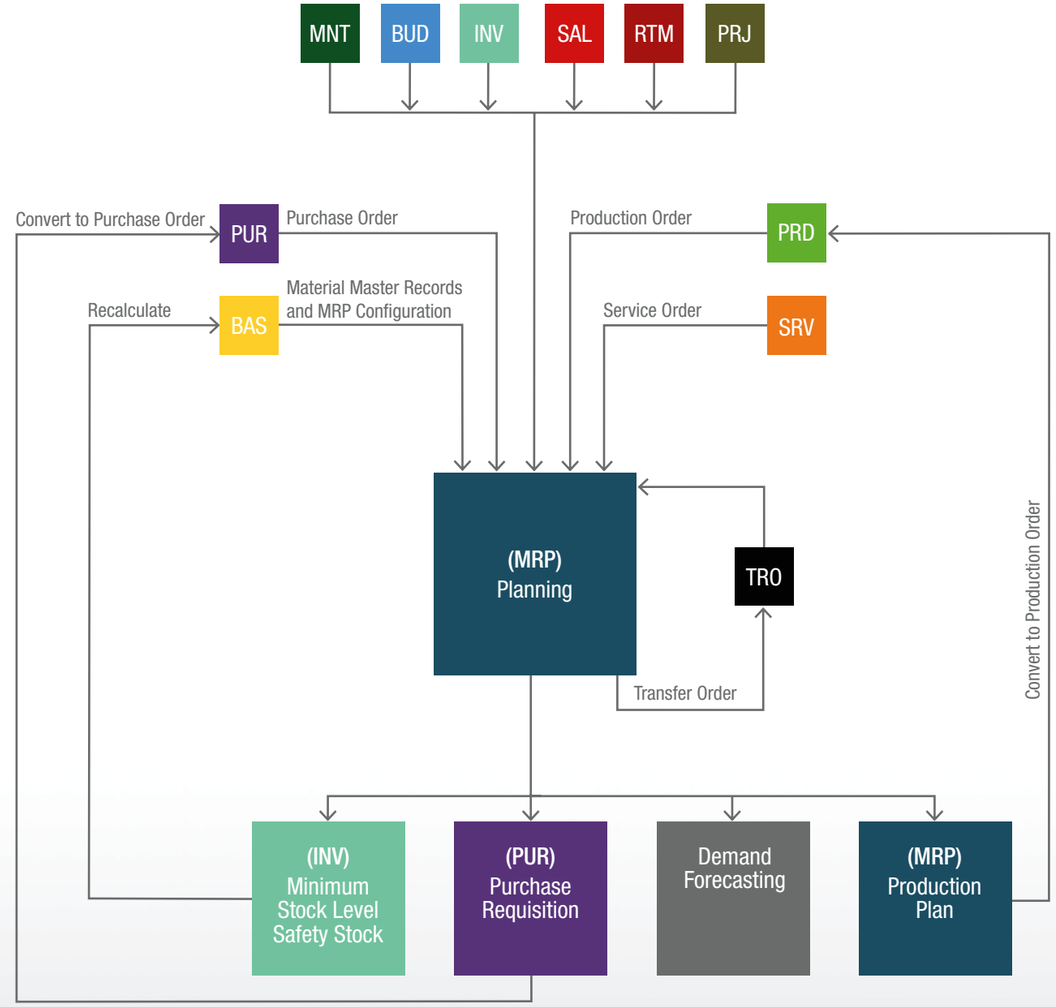
- Regular inventory management
- Implementation and management of goods postings
- Inventory
- Special focus on the tracking of serial numbers

"The Inventory module in *canias*ERP makes it possible for us to accurately track all of our high-temperature furnaces using their serial numbers. When a customer comes to us with a question or complaint, we have all the necessary information in seconds. This includes not only the specifications of the ovens, but also the details of the order and delivery in the sales module, any past service cases and every communication within CRM starting with the first customer question. *canias*ERP collects all of this information automatically, so that manual entries are rarely required and we keep a permanent record of our current and former inventory. This concept is consistent across the whole system. This way, no processes get lost in the hectic day-to-day environment."

MRP

Material Requirements Planning

MATERIAL MANAGEMENT



MRP // Material Requirements Planning ■ MNT // Maintenance ■ BUD // Budgeting ■ INV // Inventory ■ SAL // Sales ■ RTM // Retail Management
PRJ // Project Management ■ PUR // Purchase ■ BAS // Basic Core Data ■ PRD // Production Plannig and Scheduling ■ SRV // Service Management ■ TRO // Transfer Order

Material Requirements Planning with *canias*ERP

The ***canias***ERP Material Requirements Planning (MRP) module is the heart of the entire logistic chain in a company. For this reason, various types of data are transfered to this module from the ***canias***ERP system. This integration is outlined in the graphic.

Flexible Configuration and Individual Planning Parameters

The ***canias***ERP Material Requirements Planning module ensures that individual material requirements planning procedures are configured. Thus, a definite and indefinite setting can be defined for the relevant requirement source and the requirement satisfying element. In the indefinite material requirements planning procedure, orders not yet confirmed can be included in planning.

The ***canias***ERP Material Requirements Planning module is fully deterministic and the most realistic supply chain is formed by a requirement planning with perfect timing. In addition, the atomic time unit can be a week, month or a time interval determined by the user. This feature offers users tolerance capability and enables them to reduce the error rate in plan estimates. In addition, the scheduling of plans produces realistic results using critical data such as order delivery time and production lead time.

Several order size determination methods recognized in industrial literature are available in ***canias***ERP Material Requirements Planning. Among order sizing methods, there are linear methods such as Exact Quantity “Lot-for-Lot,” Fixed Quantity and Maximum Stock Level as well as advanced methods such as Economic Order Quantity and Part Period Balancing.

In addition, minimum stock management is assured by defining a safety stock and re-ordering threshold for materials.

The ***canias***ERP Material Requirements Planning is quite sophisticated in terms of planning parameters. Data types fed by the planning system can be defined by the user. For example, it is possible to plan only domestic sales of a material.

Flexible Planning

The ***canias***ERP Material Requirements Planning module allows for replacement of similar or related materials. Therefore, instead of a single material, a group of materials can be considered in meeting requirements and enterprises can achieve savings by reducing purchase/production activity. Selection of materials that are defined as alternatives to each other is carried out taking real stock levels into account and alternatives that represent the highest quantity in the stock are selected so that the stock level is balanced.

Orders that cannot be completed due to various reasons can be included in planning as required, within tolerance parameters.

Implementation of Plans

Supply plans created by ***canias***ERP Material Requirements Planning are converted to real documents through the ***canias***ERP Production Planning and Control, ***canias***ERP Purchase and ***canias***ERP Transfer Orders modules and thus plans are implemented. The Material Requirements Planning module continues to consider implemented plans and users can instantly view the future inventory status.

Ease of Use

The ***canias***ERP Material Requirements Planning module works in integration with a large part of the ***canias***ERP system. All integrated modules feed instant data for material requirements planning and thus help the material requirements planning system to always remain up to date. Due to the net change system, when a transaction affects the planning status of any material in one of the integration modules (e.g. entry of a new order, change of existing orders, change of bill of materials, change of inventory stock), the relevant material is recorded for re-planning in the Material Requirements Planning module infrastructure. With the help of batch planning applications, these materials and their related materials are planned again and an up-to-date plan status is achieved. An additional feature of the ***canias***ERP system is the automatic batch planning execution on a periodic basis.

Focused on Future

The ***canias***ERP Material Requirements Planning module presents various statistical estimation models to predict requirement changes in the future. For Example, a demand estimate can be formed based on sales figures. This estimate enables decision-makers to better foresee future developments and requirements and adjust themselves accordingly. To this end, aside from simple methods such as arithmetical mean, advanced statistical methods like linear regression analysis or seasonal indexing can be used.

Optimal Structure

The ***canias***ERP Material Requirements Planning module offers an absolute and reliable requirement planning that always prioritizes optimization of capital obligation. Data produced can be analyzed through a wide range of evaluation capabilities. This data enables comapnies to be able to appropriately react to changes.

FEATURES OVERVIEW

- Instant material inventory status
- Determination of conclusive and real supply dates
  - Date tolerance capability
- Order sizing methods
  - Real “Lot-for-Lot”
  - Fixed quantity
  - Maximum stock level
  - Economic order size
  - Part period balancing
- Planning keys
  - Big scale planning configuration capability
  - Parallel planning and simulation capability
- Estimating material movements between different facilities
- Keeping the material plans up-to-date with the net change system
- Special order planning
- Use of alternative materials and material usage groups
- Implementation of plans created
- Matching requirement and supply documents
  - Updating the match as documents realize

Advice
from our Experts.

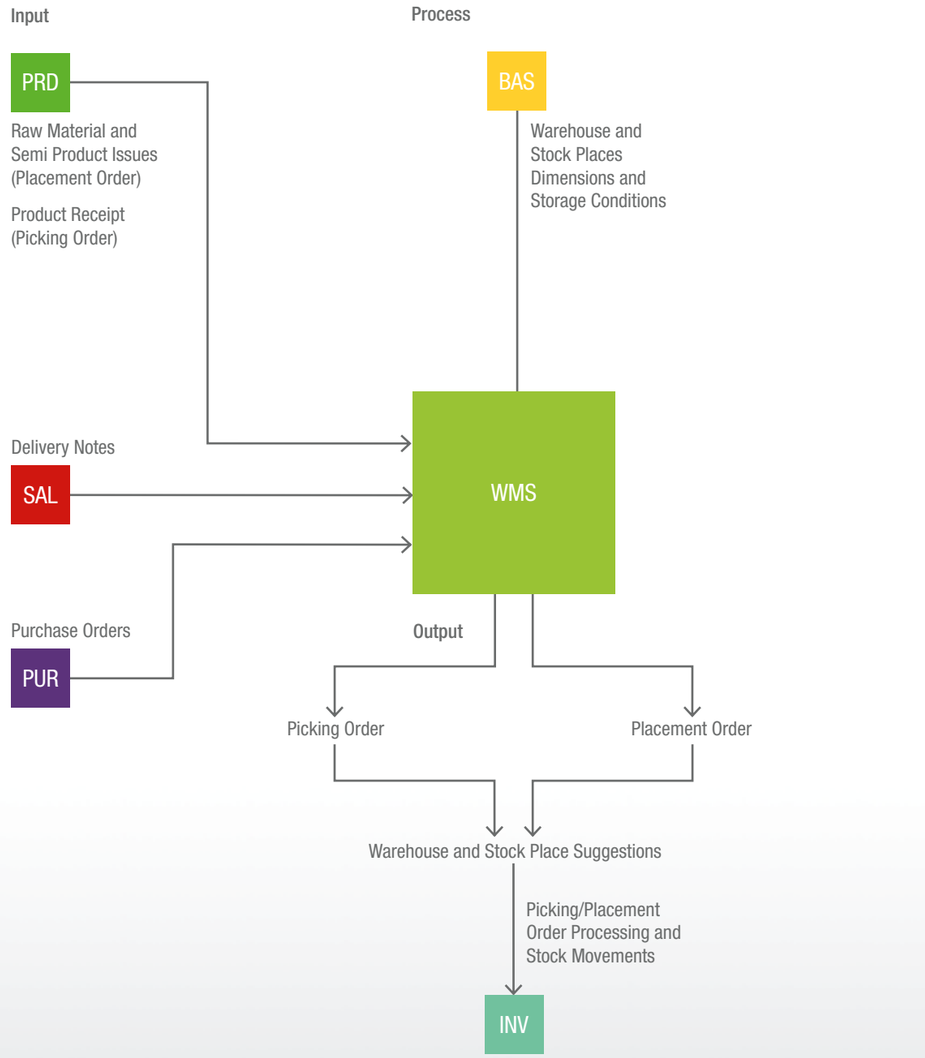
Expert Advice from:
Alice von Korff // Industrial Application Software GmbH

Sales Representative // Karlsruhe

The material requirements planning of an ERP system is responsible for replenishment (orders, production orders, inventories, etc.) within order processing. Modern material resource planning, however, does more. Creation of demand forecasting and simulations, demand matching and support of make-or-buy decisions and regulation of alternative options are just a few topics that are covered in the Material Requirements Planning module from *canias*[ERP].

WMS Warehouse Management System

MATERIAL MANAGEMENT



WMS // Warehouse Management System ■ PUR // Purchase ■ SAL // Sales ■ PRD // Production Planning and Scheduling ■ BAS // Basic Core Data ■ INV // Inventory

Warehouse Management System with *canias*ERP

The ***canias***ERP Warehouse Management System (WMS) module supports the user in processing all material movements and ensures easy automatic management of warehouse movements.

With the ***canias***ERP Warehouse Management System module, the company has a general view of all warehouse addresses and warehouse locations and automatically calculates the most convenient place for warehouse entries or the most convenient source for material outputs. Therefore, in chaotic warehousing, regular structures are created with system components; companyspecific requirements are taken into account and time savings are achieved during the entry/payment draw of goods into/from the warehouse.

Connection with other modules in the system ensures very efficient logistic workflows and speeds up other business processes related to inventory management. The integration of the ***canias***ERP Warehouse Management System module with the general system is shown in the graphic.

Layout in Chaotic Warehouses

All warehouses owned by the company are created in the ***canias***ERP Warehouse Management System module in detail including warehouse/stock place address. The user knows exactly which material is located at which warehouse/stock place and in what quantity. The module supports the user by providing all warehouse/stock place addresses efficiently and managing material stocks kept in more than one warehouse/stock place.

Initiation Causes of Stock Movements

Physical stock movements in the warehouse can be triggered from another document in the system (purchase, sales, production, etc.).

- Delivery of goods after a purchase order realized through the ***canias***ERP Purchase module (receipt of goods)
- Delivery/shipment of delivery note created by the ***canias***ERP Sales module (goods issue)
- The release record during the supply of materials (removal of goods) necessary for a production order to the production supply area created in the ***canias***ERP Production Planning and Scheduling module
- The entry record during the placement of produced goods in the warehouse (receipt of goods) in line with a production order created in the ***canias***ERP Production Planning and Scheduling module.

During the processing of warehouse orders, warehouse management data kept in the ***canias***ERP Basic Core Data module is utilized. This may include measurements, weights, warehouse groups and condition groups corresponding to materials. The ***canias***ERP Inventory Management module also constitutes an infrastructure for known routine works related to warehouse management.

Automatic Creation of Warehouse Orders

Automations applied in the ***canias***ERP Warehouse Management System module (particularly when they are used with the production module) offer significant advantages for simplifying production workflows. When a commercial transaction is conducted, the relevant processes in the Warehouse Management System module are triggered. First, receipt of goods subsequent to a purchase order is first of all recorded in a warehouse/stock place defined as a collection area. Here, for the purpose of storing the goods in an ultimate warehouse/stock place, a placement order is automatically created by the ***canias***ERP Warehouse Management System module.

It is thus guaranteed that goods delivered by vendors or produced within the company are quickly and easily placed in a warehouse.

In order to ensure that goods are issued to a warehouse and move to a collection area during the processing of a customer's order, automatic picking orders can be created when recording delivery notes. In addition, these picking orders guaranteed that raw materials to be used in the production process are present at the right worksite at the right time.

The system creates a proposal list on the basis of placing/picking orders created. This list includes a sequence of appropriate warehouse/stock place addresses that can be configured by the user.

Processing with Comprehensive Criteria

The system proposes warehouse/stock places for the placement of goods in or removal of goods from the warehouse. Based on the criteria recorded specifically for the order, the most appropriate alternative and other reasonable alternatives are proposed every time in relation to the warehouse location to be managed. The decision whether the proposals in the list are to be applied or not and which proposal will be applied is at the discretion of the responsible warehouse manager.

The criteria can be defined individually and are generally related to the following topics:

- Distance (the shortest way)
- Empty/full warehouse location preference for entry into / release from the warehouse
- Permitting only one product for each warehouse location
- FIFO principle or similar methods
- Individual conditions for the prioritization of warehouse locations (configurable by the user)

Also, warehouse-related condition groups can be created (e.g. cold warehouse, hazardous material warehouse or small parts warehouse). This guarantees that all requirements regarding proper storage of special materials are met.

If a picking/placing order in the list is to be applied, the warehouse employee may perform physical movement of materials and report the action performed to the system. This reporting action can be performed on site with a fixed computer or through a mobile device.

Mobile Use

With the help of the ***canias***ERP Warehouse Management System Mobile application and the use of mobile data entry devices (MDE's), picking and placing orders are processed and stock movements are recorded independently of current location. This data is transferred to the real-time ***canias***ERP Inventory module and the ***canias***ERP Warehouse Management System module. This greatly increases consistency the system.

Use of barcode readers enables users to scan delivery notes or purchase order numbers without having to be present at any location and to record entry/release of goods or transfer material stocks. The data contained in the relevant barcode can be easily configured by the user.

Due to direct connection with the system, the status of a picking process is continually monitored and usable warehouse stock can be viewed whenever desired. Therefore, a view on deliverability is instantly obtained. Thanks to this solution, the user can always move around the warehouse and manage the movement of goods directly from his present location very easily.

Advantages of Integration

The ***canias***ERP Warehouse Management System module is fully integrated to the ERP system. Since it is connected to the other modules in the software without an interface, all data relating to warehouse management are always kept up-to-date. Physical movement of goods in the warehouse and the processes related therewith are initiated by other modules such as Purchase, Sales and Production Management and are processed using the data recorded in the ***canias***ERP Basic Core Data module. The results of the picking or placing operation are recorded via the ***canias***ERP Inventory module. In addition, thanks to integrated capacity scheduling, it is guaranteed that all warehouse locations are used in the best manner possible and unnecessary loss of space is prevented.

The module presents information about approaching movement of goods (sales order,production plan, etc.) at an early stage and implements them effectively and optimizes efficiency in the warehouse.

FEATURES OVERVIEW

- Capability to observe entries to and releases from warehouse and stock transfers thanks to lists that contain all orders
- Defining warehouse conditions for warehouse management (e.g. cold warehouse)
- Recommendations for warehouse addresses according to recorded individual criteria
- Mobile working capability thanks to mobile client (without having to connect to computers)
- Taking capacity constraints (volume, weight, quantity) into account
- Warehouse capacity optimization (preventing wastage at warehouse address)
- Strong mutual effect with inventory management module
- Defining user-based transaction rights

TRO Transfer Order

MATERIAL MANAGEMENT

Practical Experience from: DSL Display Service Logistics AG Lausen and Läufelfingen (Swiss)

Logistics // 75 Employees // 15 Users

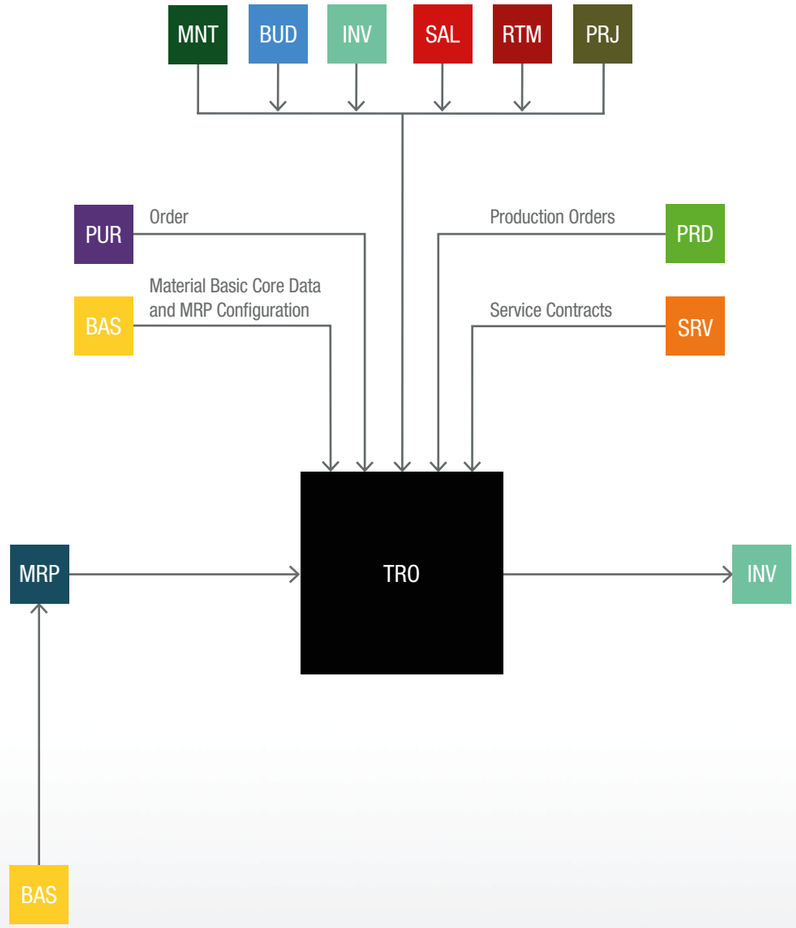
Core Competencies of the Company

Storage and preparation of displays according to customer requirements and the related returns processing and transportation. This includes processes such as storage and retrieval of products, assembling of customized products, packaging and shipping of products as well as the provision of logistics services for daily operations.

Application of the Module in the Company

- Automated handling and administration of material movements in the warehouse (storage, removal, stock transfers)
- Individual definition of storage conditions
- Automatic suggestion list for picking and storage of goods
- Location-independent recording of delivery note/order numbers, the goods issue and its respective goods receipt as well as material redistribution by using bar code scanners

"With ***canias***^{ERP} we have sales, purchasing and production processes as well as extensive functionality for warehouse management bundled into a unified solution, removing the need for our previous IT applications. In our daily business, the storage and retrieval of different products for customized packaging has to work just as smoothly as the packing and shipping of goods. Therefore, the EDI interfaces in our ERP software provides for close logistical networking between our external partners. Thanks to the Warehouse Management System module from ***canias***^{ERP}, various storage locations and sites can now be managed efficiently. For example, the internal storage process is automatically triggered and executed upon arrival of goods ordered, and the assigning of goods to an appropriate storage area also takes place with complete ERP support. Furthermore, ***canias***^{ERP} WMS also supports all desired storage operator variants as well as the recording of material movements using bar code scanners. This leads to significant relief and time saving in everyday work and increases the overall capacity and productivity of the warehouse. With the introduction of the new complete solution, we were able to collectively increase our process transparency as well as quality and delivery reliability and reduce our lead times and costs. Today, with ***canias***^{ERP}, we have a solution in use that we can highly recommend due to the impressive price-performance ratios."



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PRJ // Project Management ■ PUR // Purchase ■ BAS // Basic Core Data ■ PRD // Production Planning and Scheduling ■ SRV // Service Management ■ TRO // Transfer Order

Transfer Order with *canias*ERP

With the ***canias***ERP Transfer Order (TRO) module, warehouses/stores can identify material requirements, conduct stock planning, demand materials from other warehouses and follow up orders. If warehouses/stores meet their material requirements by using the transfer method with the ***canias***ERP Transfer Order module instead of purchase and production, companies are able to use their time, space and financial resources efficiently. While warehouses determine their requirements with the ***canias***ERP Transfer Order module, average stock consumption time is calculated taking into account sales conducted from the warehouse in the preceding years. The system suggests requirement quantity taking into account re-ordering and delivery times. Warehouses may demand material transfers in line with such requirements.

Flexible Distribution

Transfer demands of different warehouses are managed from a single center, which evaluates all these demands. By preferring one of the flexible distribution methods in meeting such demands, any of the methods, “as much as required”, “to the extent required“ or “equal distribution“ can be applied. Here, inventory management efficiency is essential.

Fast Distribution

It is possible to see material requirements of the Production Orders available in the system collectively from the fast distribution screen. The system automatically calculates material quantities required and stock quantities in different warehouses and enables users to quickly plan the distribution of materials necessary for production. Using this distribution structure, materials necessary for production can be supplied from more than one warehouse in parts or a transfer requests and order from a single warehouse can be created. The transfer is realized in line with such request and orders. Automated completion of all these transactions prevents loss of time that delays production.

Advantages of Integration

Stock movements are carried out in integration with the ***canias***ERP Inventory module. Instant stock data is obtained and stock movements are ensured. Transfer requests and transfer orders can also be included and considered in the Material Requirements Planning module. With the ***canias***ERP Sales module, material requirements can be calculated taking into account the sales performance of previous years. With the integration of the ***canias***ERP Production Planning and Scheduling module, a transfer request may be opened for materials to be used in production.

FEATURES OVERVIEW

- Two-step process consisting of request and order
- Authorized approval mechanism
- Flexible distribution methods (as much as required, to the extent required, equal distribution)
- Ability to specify delivery time
- Virtual warehouse feature
- Determining material requirement taking into account sales of previous periods
- Transferring materials necessary for production from different warehouses to a single warehouse through fast distribution requests and orders
- Monitoring materials in transit

Module Group

PRODUCTION PLANNING AND SCHEDULING

PRD

Production Planning and Scheduling
PRODUCTION PLANNING AND SCHEDULING

CAP

Capacity Planning
PRODUCTION PLANNING AND SCHEDULING

MNT

Maintenance
PRODUCTION PLANNING AND SCHEDULING

PRC

Production Costing
PRODUCTION PLANNING AND SCHEDULING

PRD

Production Planning and Scheduling

PRODUCTION PLANNING AND SCHEDULING

Production Planning and Scheduling with *canias*ERP

The ***canias***ERP Production Planning and Scheduling (PRD) module covers all processes in production and contributes to theis optimization. Due to integration with the ***canias***ERP system, a perfect data flow is ensured, whereas transparency and efficiency in production are increased. The graphic below shows the process of the ***canias***ERP Production Planning and Scheduling module.

Creating a Production Order

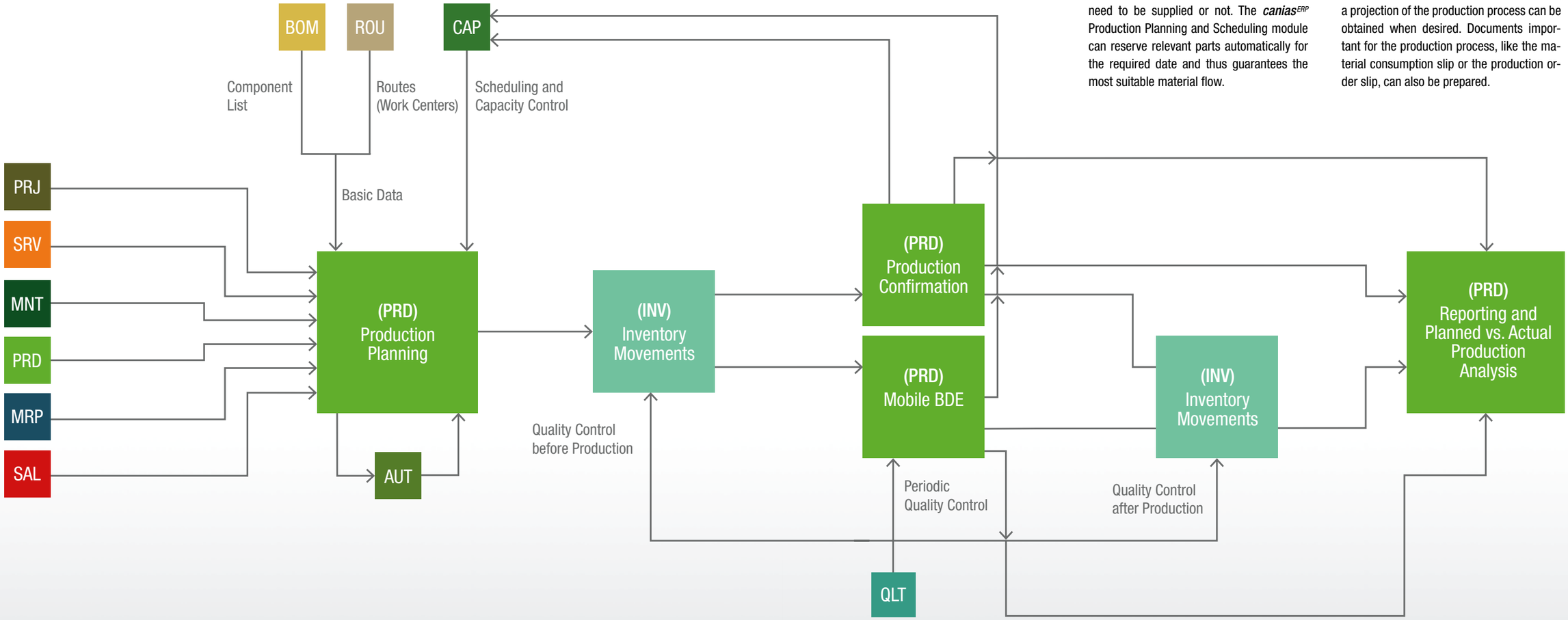
In the ***canias***ERP Production Planning and Scheduling module, different types such as collective, combined and disassembly production orders can be created. When needed, the module automatically produces the production plan containing necessary quantities for the relevant material. This plan may be converted to a production order or a production order may be created manually.

During manual creation, values proposed by Material Requirements Planning (MRP) may be used as guidance. During the creation of a production order, missing material analysis can be set to occur automatically. This analysis checks whether necessary components are present or not or if they need to be supplied or not. The ***canias***ERP Production Planning and Scheduling module can reserve relevant parts automatically for the required date and thus guarantees the most suitable material flow.

Implementing a Production Order

The ***canias***ERP Production Planning and Scheduling module enables users to implement the most suitable resource planning for the relevant production order due to its integration with the Capacity Planning module. With the help of detailed planning types, it is possible to reschedule operations prospectively, retrospectively or starting from any stage.

Furthermore, information on resources, use of resources and bill of materials (BOM) can be obtained with the help of the module. Therefore, all business data included in the relevant production processes are taken into account for planning in the ***canias***ERP Production Planning and Scheduling module. Due to the real-time tracking feature of the module, a projection of the production process can be obtained when desired. Documents important for the production process, like the material consumption slip or the production order slip, can also be prepared.



■ PRD // Production Planning and Scheduling ■ PRJ // Project Management ■ SRV // Service Management ■ MNT // Maintenance ■ MRP // Material Requirements Planning ■ SAL // Sales
■ BOM // Bill of Materials ■ ROU // Routes and Work Center Management ■ AUT // Automation ■ CAP // Capacity Planning ■ INV // Inventory ■ QLT // Computer Aided Quality

Approvals

After an operation is partially or fully completed, production order operations are approved. Due to integration with the ***canias***^{ERP} Computer Aided Quality module, the quality control process may be started prior to, during or after the approval, according to the assigned test plan.

If all operations related to the material to be produced have been approved, automatic inventory movement can be conducted.

In addition, approvals and inventory movements can be recorded with barcodes or manual entries. Thereby, all components produced can be tracked completely.

Analyses and Evaluations

In the ***canias***^{ERP} Production Planning and Scheduling module, various analyses are presented in order to determine and evaluate optimization potentials in production. These analyses allow the user to evaluate different issues such as work centers or cost centers according to various criteria. It is also possible to compare planned and actual production levels, input quantities and production quantities.

In order to calculate the current value of components included in production, the work-in-progress (WIP) analysis is available in the ***canias***^{ERP} Production Planning and Scheduling module.

In the module, reprocessing and scrap analyses have also been offered for use. Production bills of materials and routes and work center management that are different from master bills of materials and routes and work center management can be compared against their originals.

The tool/equipment management feature of the module provides a resource simulation capability that enables users to determine resources used as well as optimization potentials.

Integration

Due to use of an integrated system, the ***canias***^{ERP} Production Planning and Scheduling module conducts perfect data interchange with other modules. The flexible development environment TROIA makes the application perfectly compliant with company processes. The module can be customized according; comprehensive functions need created with reference to company-specific requirements can be used and a seamless process audit implemented for efficient production.

FEATURES OVERVIEW

- Various production types (single production, customer order production, serial and small serial production)
- Special production (variant production, combined production, collective production)
- Detailed planning with prospective, retrospective and midpoint scheduling
- Capacity planning (limited and unlimited capacity)
- Traceability in all production levels (lot and serial numbers)
- Automation (recording of machine data)
- BDE (business data entry)
- Integrated quality management
- Consumption and missing materials list
- Inventory record
- Graphical production network
- Actual cost calculation
- Creating all production documents

Practical Experience from: Jean Müller GmbH Elektrotechnische Fabrik Eltville am Rhein

Electrical engineering // 600 Employees // 230 Users

Core Competencies of the Company

Development and production of fused switchgear, switchgear assemblies, power distribution and electrical system components as well as electronic monitoring and energy management systems. JEAN MÜLLER offers customer-oriented and high-quality solutions in 60 countries.

Application of the Module in the Company

Use of ***canias***^{ERP} in the complete supply chain – from production planning and order release to order feedback. Furthermore, the maintenance module ***canias***^{ERP} MNT is used for workshop, repair and maintenance orders of tools and special purpose machinery. The product costing analysis of such orders also happen in ***canias***^{ERP} PRD.

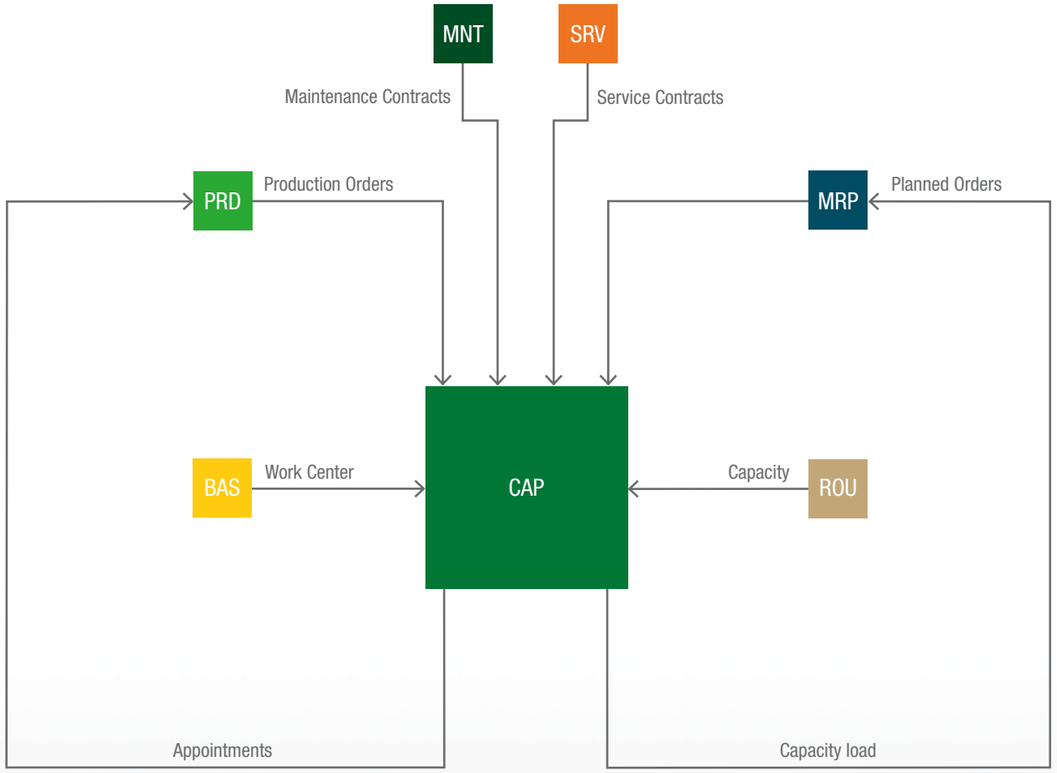
"The high demands of our customer-oriented solutions and internal processes are met through the support of the flexible and integrated business software ***canias***^{ERP}. Many of our employees working in production use the Production Planning and Scheduling module from ***canias***^{ERP} – including supervisors and workers. Through real-time feedback our inventory is always up to date and the integrated networking ensures streamlined and economic processes. Additionally, the flow of information to all those involved now happens much faster and easier. The "Mobile" division helps us every day through the use of barcode scanners during retrieval and transfer of stocks as well as picking and inventory.

Other highlights are the self-developed manufacturing cockpit and malfunction management in the system – they make it possible for us to have more transparency and efficient control. Also, we no longer want to go without the functionality of being able to freely create our own evaluations."

CAP

Capacity Planning

PRODUCTION PLANNING AND SCHEDULING



■ CAP // Capacity Planning ■ PRD // Production Planning and Scheduling ■ MNT // Maintenance ■ SRV // Service Management
■ MRP // Material Requirements Planning ■ BAS // Basic Core Data ■ ROU // Routes and Work Center Management

Capacity Planning with *canias*ERP

With the ***canias***ERP Capacity Planning (CAP) module, production orders in a certain period are scheduled according to resource restrictions and generally recognized methods. The Capacity Planning module can be operated according to different criteria subject to the relevant production order type and work center for each production order. Different scheduling types and past plans can be also compared. Thanks to this feature, the performances of different strategies used in capacity planning can be compared.

This module work closely with production orders, material requirements planning, maintenance planning and the work center schedule. This interaction is shown in detail in the previous graph.

Visualization and Transparency

With Gantt charts, capacity use of each work center can be listed on a production order or work center basis and their relations with each other can be shown in graphic form. Data such as starting time, period and work center of operations can be arranged with the drag and drop function on the created Gantt chart. Graphical indication of critical path, delayed works, missing parts and general scheduling performance in the ***canias***ERP Capacity Planning module allow users to notice scheduling problems early. Thus enabling a faster reaction to sudden developments occurring in the schedule and when necessary an immediate intervention.

Information about Times and Activities

Another feature in the ***canias***ERP Capacity Planning module is the indication of production range. With this feature, the period between earliest start of production and completion of the last operation is indicated. With this data, various pieces of information related to operation activities such as production period, lead time, carrying time, etc. can be accessed and graphs showing work center usage rate, efficiency rate and information about operation periods (starting and ending times, downtime, lead time, etc.) are available in the system for production control purposes.

Comprehensive and Necessary Information

Approval information relating to each operation is transferred to the Capacity Planning module in real time. Here, it is possible to view production orders along with different data that are arranged by work center or production order in the context of their purpose. Among such data are starting and ending times, waiting times, workflow periods and transportation periods between work centers. Capacity planning is performed taking into account the applicable factory calendar. Detailed data related to waiting times, exception days or shift work are taken as basis for calculation. In addition information about productive relations and scheduling rules can be displayed. Thus, inter-connected product orders can be viewed, activities compared and different schedules analyzed.

Analysis and Action

Another function of the ***canias***ERP Capacity Planning module is the work center comparison analysis. All work centers included in a certain production process can be compared to each other and optimized. For this analysis, the user is provided with a comprehensive database in which information about each production order is included and various criteria can be used to compare relevant work centers (e.g. lead time, actual period worked, machine capacity). In addition, the module has the capability to view capacity usage. This feature shows which resources in the relevant production order (e.g. tools, machines) have been used or consumed, when this occured and by how much. Furthermore, the ***canias***ERP Capacity Planning Module outlines, in relation to staff capacities, which employee will work in which operation, the status of staff capacity and whether another planning is to be carried out for idle capacity or not.

Rules and Structures Related to Audit

In order for the ***canias***ERP Capacity Planning module to have maximum performance, it is recommended that certain rules be recorded in the prescribed check table and the module be managed on the basis of such information. Capacity rules can also be issued.

Thereby, in addition to carrying out an analysis of potential delays, it is possible to optimize lead times and streamline resources. On the other hand, individual priority rules can be defined on a firm and plant basis and performances compared. It is also possible to determine lead times subject to a sequence (including inter-operational periods) and to record a multiplier for lead times. Another function of the module is to create capacity groups. Work centers where the same or similar tasks are issued in terms of capacity can be grouped together. The capacity bottlenecks can also be addressed in the ***canias***ERP Capacity Planning module.

Benefits of Integration

The fact that the ***canias***[ERP] Capacity Planning module is fully integrated with the ntire production infrastructure brings significant advantages in production scheduling. Lack of a uniform system generally leads to increased work load and risks. Furthermore, it does not provide an evaluation or analysis result relating to the entire system and hence the general condition of the company. For this reason, the greatest advantage offered by the complete ***canias***[ERP] solution is customization and transparency, which is aided by integration and continuous interaction between the individual function fields and modules within the ***canias***[ERP] system. The Capacity Planning module works in coordination with the data and functions in other modules included in the graphic and improves capacity planning.

FEATURES OVERVIEW

- Scheduling production orders
- Comparison of scheduling options
- Defining capacity and priority rules
- Gantt chart for capacity usage
- Viewing production interval
- Information about individual operations
- Activity comparison analysis
- Capacity usage for resource scheduling
- Overview of employee capacities
- Information about capacity bottlenecks

Advice *from our Experts.*

Expert Advice from:
Dennis Wirtz // Industrial Application Software GmbH

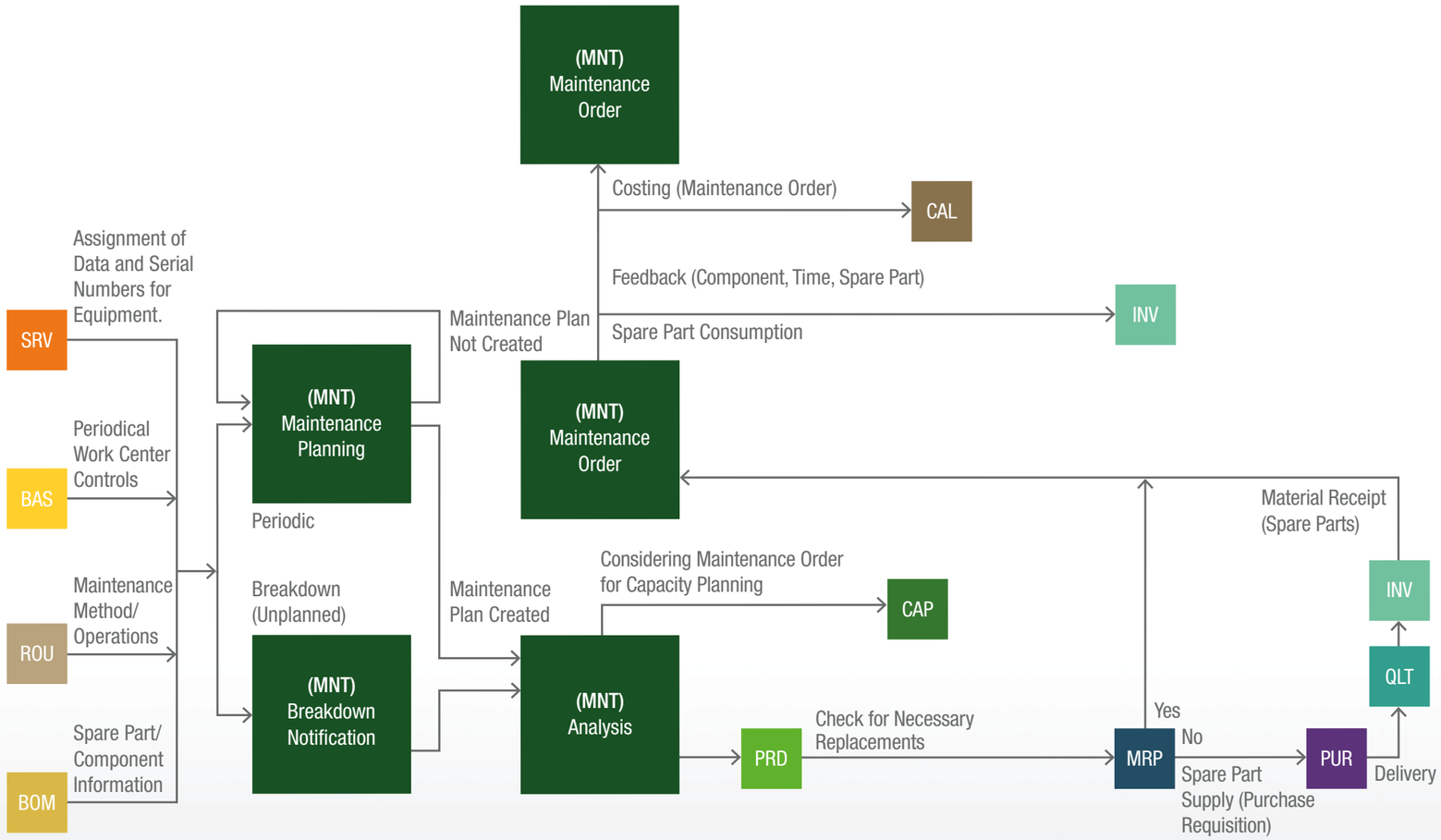
Consultant // Düsseldorf

With the Capacity Planning module from ***canias***[ERP], companies can significantly simplify their production planning, comprehensively manage and oversee manufacturing steps and execute various evaluations. Especially with larger production facilities that have many machines and complex production processes, automatic detailed planning provides a huge relief. In addition, graphic visualization of certain facts in Gantt charts provides greater transparency: The duration and sequence of operations as well as their dependencies and time-related bottlenecks are visible at a glance and the company gets a better overview of the manufacturing capacity utilization rate. This means users can directly intervene in production and (re)schedule individual processes manually as needed. Concepts for the mapping of capacity groups, finite/infinite production or batch production within ***canias***[ERP] also aid in the production of structures that are difficult to realize and the sensible planning and optimization of underlying processes.

MNT

Maintenance

PRODUCTION PLANNING AND SCHEDULING



■ MNT // Maintenance ■ BOM // Bill of Materials ■ ROU // Routes and Work Center Management ■ BAS // Basic Core Data ■ SRV // Service Management
■ PRD // Production Planning and Scheduling ■ CAP // Capacity Planning ■ MRP // Material Requirements Planning ■ PUR // Purchase ■ QLT // Computer Aided Quality
■ INV // Inventory ■ CAL // Standard Cost Calculation

Maintenance Management with *canias*ERP

The task of the ***canias***ERP Maintenance (MNT) module is to ensure that facilities and technical systems operate with target functional sufficiency or to reactivate them when they are out of service. In addition to preventing system interruptions and extending machine operating times, the module allows maintenance work to be carried out efficiently, secures workflows and contributes to the improvement of occupational safety. The graphic describes the location of the Maintenance module in the general system and its connections with other function fields.

Periodic Maintenance

In periodic or regular maintenance, scheduled and preventive maintenance efforts are used to protect functional integrity of technical systems.

Systems and devices that are currently used to carry out proper maintenance work must be created as maintenance objects in the ERP system. For this reason, maintenance methods are defined for each maintenance object and necessary work steps are defined in the ***canias***ERP Routes and Work Center Management module. In addition, machine type (e.g. packing unit) and periodic maintenance interval (e.g. weekly, monthly or annually) is entered in the ***canias***ERP Basic Core Data module, whereas the serial number of the system is entered in the ***canias***ERP Maintenance module. These entries enable users to create maintenance plans according to data defined in the system for each serial number. The planning operation can be performed by a user or automatically at regular intervals.

The planning process is carried out automatically according to type and interval of periodic check and each is recorded as a maintenance plan. Maintenance plans can be followed up under the Maintenance Module.

If the user wants to apply the created maintenance plans, he may approve the relevant maintenance plan and convert them to maintenance orders. The created maintenance orders are followed up and applied with the Maintenance module application. If the relevant maintenance plans are not approved, the necessary maintenance work is re-proposed in the next planning process.

Repair in Case of Breakdown

In case of repairs after breakdowns, one-time temporary breakdown messages and short-term repair works to recover a technical functionality are recorded in the system.

In the event of unexpected downtimes, general substitute systems must be activated; this may require overtime work and thus increase costs. For this reason, the company must be quick to react to such non-periodic maintenance.

For example, when a breakdown is reported by telephone, the breakdown must be recorded in the system immediately. From the breakdown message created, a maintenance order is created on the basis of recorded general information in relation to the maintenance of that system. After the order is created, information is obtained about the time period and spare parts needed for maintenance.

Maintenance Confirmation

After a maintenance order is realized (independently of periodic maintenance or unforeseen breakdown), a confirmation is given to the ***canias***ERP Maintenance module for the measure applied. The system for which the measure is applied, the time when it is applied and any spare parts used are thus recorded in the system.

Supply of Spare Parts

All spare parts that may be considered for a system are recorded in the ***canias***ERP Bill of Materials module. The components used are automatically excluded from inventory at the time of approval through ***canias***ERP Inventory Management module. It is also possible to exclude the parts from the usable inventory manually.

Missing spare parts in relation to a maintenance/repair order have to be supplied. Therefore, an automatic or manual purchase transaction is started in the ***canias***ERP Purchase module. When ordered parts are delivered, these are recorded as receipt of goods and thus as usable stock in the ***canias***ERP Inventory module and can be used for necessary maintenance.

Evaluations and analyses

All data collected for maintenance purposes can be used as a basis to make and execute better maintenance plans in the future. As a result of various evaluations, the company has the capability to perform maintenance of technical systems as projected and to secure workflows in a timely manner.

For purposes of cost control, final cost calculations can be created in the ***canias***^{ERP} Costing module (in connection with the ***canias***^{ERP} Production Planning and Scheduling module) for the maintenance and repair works performed. Costs relating to maintenance production orders that are realized are calculated by multiplying effective hourly fee rates by the time periods entered during approval.

Also, various analyses can be performed. The basic core data necessary for this are retrieved from confirmations of maintenance and repair production orders and from periodic checklists. These documents contain information about issues and maintenance efforts that occur after the maintenance period has ended. Thanks to such evaluations, the company has knowledge about causes of maintenance efforts carried out, solutions and time spent.

Advantages of Integration

A great advantage of the ***canias***^{ERP} software is that it has seamless integration with all function fields. Due to interface-free connection with other modules in the system data is kept current and processes necessary for maintenance or customer service are automatically initiated. Therefore, data recorded in the modules in relation to bills of materials, work plans and master data constitute a database to create maintenance plans. Maintenance plans recommended by the system are realized in the Material Requirements Planning, Maintenance and Production Planning and Scheduling modules. Management of necessary spare parts is carried out by the ***canias***^{ERP} Material Requirements Planning module with the help of inventory and purchase function fields.

In order to use technical systems with high performance for a long period, it is of utmost importance to conduct preventive maintenance activities. For this reason, information about necessary maintenance plans are acquired from all modules at an early stage; measures are applied effectively and efficiency secured.

FEATURES OVERVIEW

- Arranging maintenance objects (machines and systems)
- Creating periodic maintenance and plans
- System recommendations about approaching maintenance plans
- Creating and processing periodic maintenance orders
- Auditing maintenance and repair works according to capacities
- Managing one-time temporary fault messages
- Chronologic maintenance lists
- Checklists to inform about maintenance plan status
- Creating final cost calculations
- Various analyses for maintenance orders and maintenance approvals
- Full integration with the general system

Practical Experience from: DOKA Schalungstechnik GmbH 160 Distribution and logistic locations in over 70 countries

Formwork // 6.000 Employees // 200 CC-Users

Core Competencies of the Company

Doka is one of the world's leading companies in the development, manufacture and distribution of formwork technology for all areas of construction. With more than 160 Sales and logistics locations in over 70 countries, the Doka group has a powerful distribution network, guaranteeing rapid and professional provision of material and technical support.

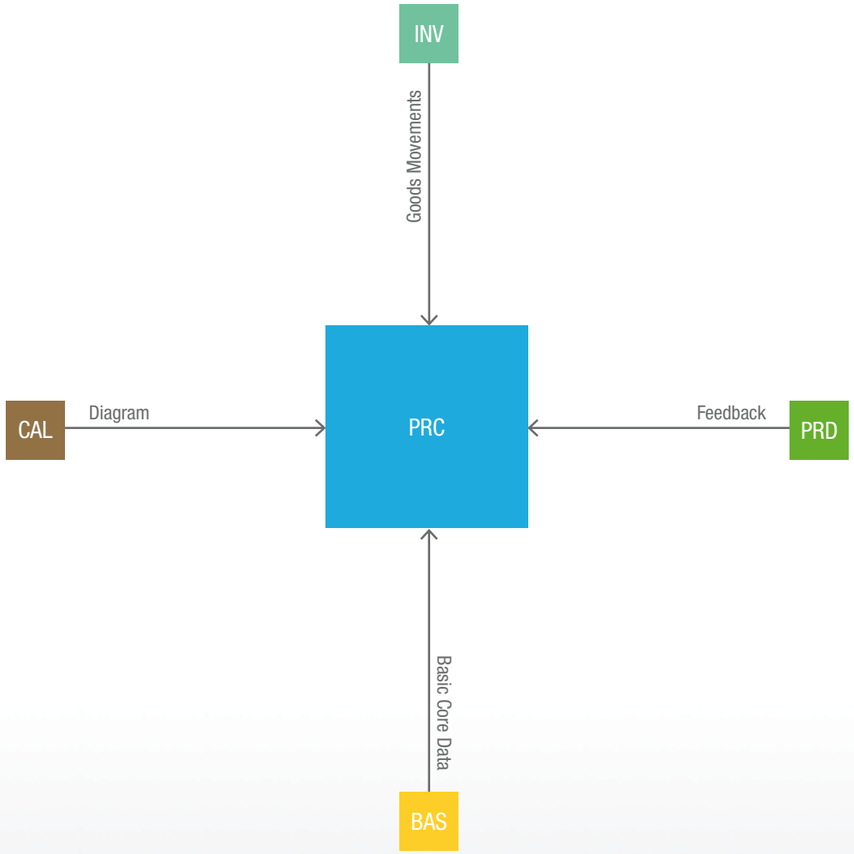
"Doka has more than 50 years of expertise in the manufacture of high-quality formwork systems. 4 million shuttering panels, 1 million props, 10 million running meters of formwork girders, 2.5 million frameworks and 180,000 panel formworks are produced every year.

Our production uses modern, highly automated plants while maintaining the highest quality and environmental standards. The maintenance module ***canias***^{ERP} MNT helps us to keep our plants in a functional state and reduce downtime. The life span of our machines have increased and we can ensure sustainable production and operations. With ***canias***^{ERP} MNT, we can also efficiently plan maintenance measures and react quickly to necessary repairs."

PRC

Production Costing

PRODUCTION PLANNING AND SCHEDULING



■ BAS // Basic Core Data ■ PRD // Production Plannig and Scheduling ■ INV // Inventory ■ CAL // Standard Cost Calculation ■ PRC // Production Costing

Production Costing with c*anias*ERP

The ***canias***ERP Production Costing (PRC) module includes cost calculation of products manufactured. The cost values can be used in in-house reports and also included in the ***canias***ERP Financial Accounting module.

In the ***canias***ERP Production Costing module, production cost value consists of three main elements: Raw material amount, charge-out of costs entered in cost centers to activity amounts and invoice amounts paid for outsourced operations. Raw material amounts are supplied by the ***canias***ERP Inventory module, activity amounts are supplied by the ***canias***ERP Costing Module and factory operation invoices are supplied by the ***canias***ERP Verification module.

Pre-Work Control

Production Costing is a module that is fed with data from several modules. In order to incorporate raw material, activity and factory invoices into the transaction properly, periodic works carried out in the Inventory Management, Cost Center Accounting and Verification modules must be finalized before calculating production cost. ***canias***ERP Production Costing enables users to perform an accurate transaction by instantly reporting the status of the data to be supplied.

Cost Calculation

The ***canias***ERP Standard Cost Calculation module takes cost items into account on a production order basis. It reflects the amounts of all cost items to the stock entries of Production Orders to which they correspond. The advantage of this point of view is that it can reflect, in a realistic fashion, the prices of products whose production process varies during the period. In addition, the operational structure of the production orders are taken into account; for stock entries other than products (e.g. semi-finished products and products/byproducts to be reprocessed), fair values are calculated. In addition, the costs of production orders that remain incomplete when the accounting period is closed are transferred at fair value. Using bill of materials and routing information, the costs of products included in inventory can be separated from expenses incurred and expenses that have not yet been reflected to stock entry can be carried forward to the next period.

Cost Reports

The ***canias***ERP Production Costing module offers a wide reporting capability to users. Cost reports can be used in both presenting results and preventing potential errors. The information presented in reports as comprehensive as possible with a simple design to communicate results quickly and effectively.

Cost Accounting

Production costing results can be automatically transferred to accounting via ***canias***ERP. Projections of product accounts and expense accounts are created. As a result of accounting of cost results, cost account closings can be checked without adding further accounting documents.

Integration

The ***canias***ERP Production Costing module processes the raw data from the ***canias***ERP Production Planning and Scheduling, ***canias***ERP Inventory, ***canias***ERP Costing and ***canias***ERP Verification modules. Thus the need for making double entries or data transfers is eliminated. Since costs results have to be given in a limited period of time after the period closings, this advanced integration saves a great deal of time for users. In addition, results can be transferred to the ***canias***ERP Financial Accounting module.

FEATURES OVERVIEW

- Highly integrated system
  - Applications that do not need double entries or data transfer
- Raw data analysis
  - Raw material consumption costs, ***canias***ERP Inventory integration
  - Activity costs
- ***canias***ERP Costing integration
  - Factory operation amounts
- ***canias***ERP Verification integration
- Periodic calculation of product costs on a production order basis
- Transfer of amounts not reflected to stock entry (work-in-progress cost)
- Wide reporting capability
  - Detailed production order cost analysis
  - Production orders balance check
  - Analysis of costs carried forward
  - Final view before accounting
- Transfer of cost results to cost accounting accounts
- Consistency check across the ***canias***ERP system
  - Protection of records included in cost calculation
  - Preserving consistency of inventory, production and accounting data

Module Group

ACCOUNTING

FIN

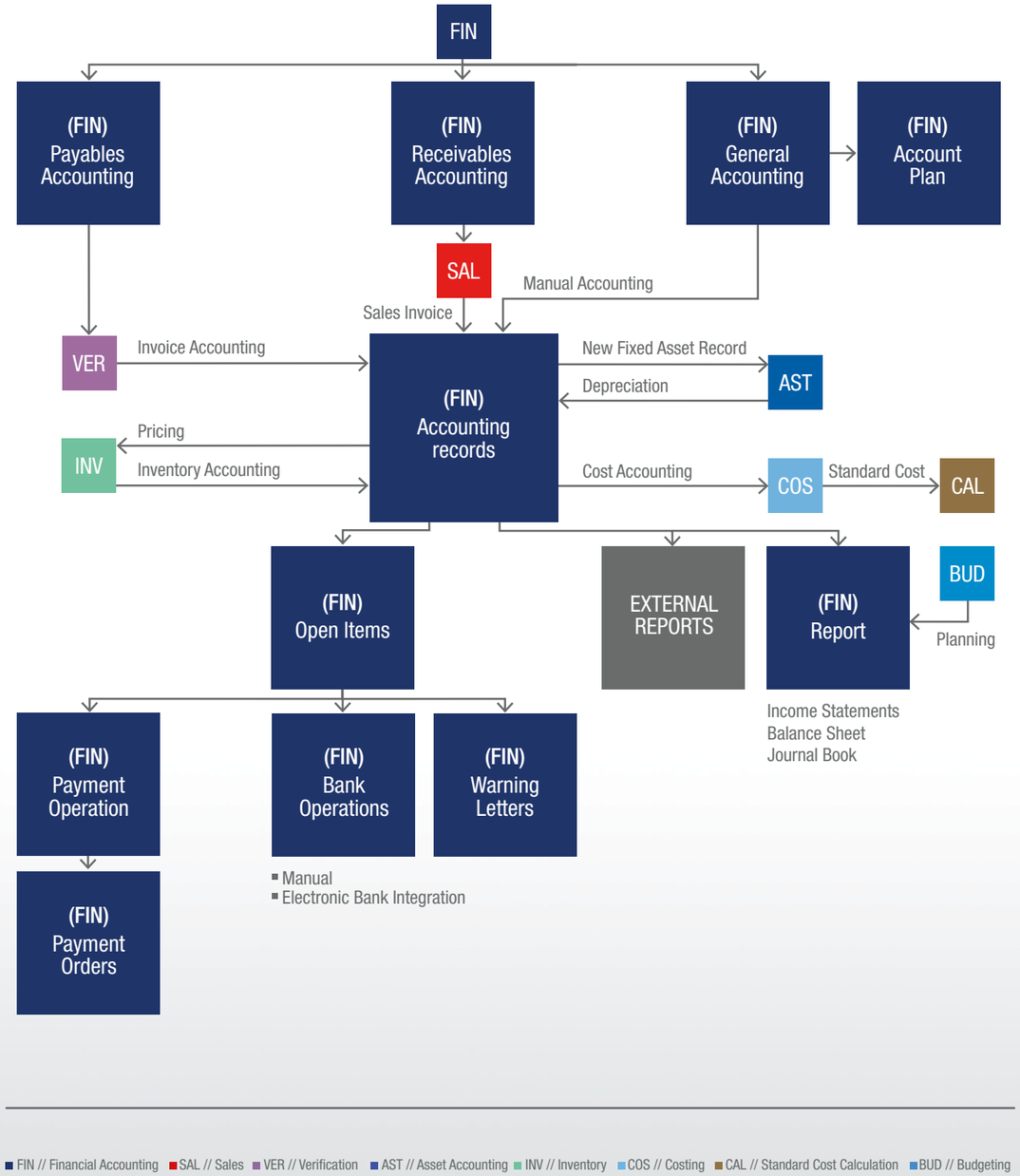
AST

Financial Accounting
ACCOUNTING

Asset Accounting
ACCOUNTING

FIN Financial Accounting

ACCOUNTING



FIN // Financial Accounting SAL // Sales VER // Verification AST // Asset Accounting INV // Inventory COS // Costing CAL // Standard Cost Calculation BUD // Budgeting

Financial Accounting with c*anias*[ERP]

The ***canias***[ERP] Financial Accounting (FIN) module has been developed and designed to meet all official and administrative requirements of enterprises that are engaged in production, provision of services or trading of final products via its submodules, including general accounting, receivables accounting, payables accounting, management accounting, cost accounting, asset accounting and budgeting.

The major strength of the ***canias***[ERP] Financial Accounting module is its capability to perform and report all these functions in a fluent and efficient manner in several accounting standards (e.g. TMS, IFRS, USGAAP or special management accounting purposes) without the need for a separate installation, construction, database or reentry.

- Recording commercial events and their documents, transaction foreign exchange data in accordance with the applicable legislation (meeting official general accounting requirements)

- Preparing official books, e-Books, statements, e-Statements or financial statements and sealing and submitting them digitally in the scope of e-government.

- Capability to manage trade receivables and trade payables comprehensively with the help of ***canias***[ERP] Sales and ***canias***[ERP] Verification modules in real time or with collective integration (outstanding balance, receivable/payable ageing, analyzing, customer debt notification and bulk warning letters).

- Due to real-time integration with the ***canias***[ERP] Asset Accounting module, accounting of monthly depreciation, automated creation of accounting documents related to full time or part-time sales and scraping. Automatic determination and processing of potential fixed assets and costs from the accounting records of the relevant period.

- Accounting of monthly personnel expenses and accruals due to full integration with the ***canias***[ERP] Human Capital Management module.

- Recording, collecting and discounting of fixed-term papers such as checks, promissory notes and letters of credit taken, given be they or endorsed. Follow-up and reporting of collection and legal proceedings, creation of automatic accounting documents for year-end evaluation.

- “Financial Reminders“ in order for you not to forget any of your payments or collections (for checks, promissory notes, letters of credit, insurance policies, etc., information and reminder with special reports e-mails and/or SMS messages at specified dates and times and at desired intervals).

- Automatic creation of accounting documents for debt settlement, outstanding balance follow-up, relevant exchange gain/loss and interest costs, by matching debt accruals with actual collections in transaction currency or in local currency.

- Convenient retrieval of financial statements and lists such as subsidiary ledgers, trial balances, adjusted trial balances, balance-sheets, profit/loss statements, cash flow statements, etc. in a comprehensive fashion (with options of local currency, reporting, transaction or account currency). Creating standard financial lists and statements as well as customized reports and statements.

- Preparing official and administrative cash flow statements from accounting records and pre-accountancy documents that have not yet been integrated into accounting (sales, purchase invoices, orders).

- One-time creation of template documents for transactions such as periodic payments, insurance premium or leasing payments, loan repayments and their automatic accounting.

- Digital integration with banks that you work with. Account movements integration, check/promissory note integration, batch payment orders submission and outcome integration in Swift MT940 standard.

- Real-time or batch document creation trough integration with other relevant modules, as well as entering documents in a fast, controlled and easy manner via sophisticated, customizable registry keys.

- Automated creation of exchange gain/loss accounting documents arising due to “periodic exchange rate valuation“, exchange difference invoices of receivables in foreign currency and accrual accounting documents of debit entries.

Reporting

The ***canias***[ERP] Financial Accounting module offers several default reports to meet official or administrative requirements. Standard reports are available with rich parameters and options; with the help of easy-to-use wizards, they can be transferred to different environments (e.g. excel, PDF, text file).

Some of the numerous default reports are as follows:

Chart of accounts, accounting documents, checklists, comprehensive account movements, trial balance and adjusted trial balance, official books (printed paper or certified e-Book options), check/promissory note slips and execution lists with history, cash flow statements, e-Statements, information and reminders for accounts payable, Ba and Bs forms, VAT reports, special reports for importers and exporters, VAT incurred report, debt ageing reports, collectionpayment reports.

FEATURES OVERVIEW

- Official forms such as e-Book, e-Statement, Ba-Bs forms
- Multiaccounting standard, real time and end-of-period parallel book productions, discount calculations for term payables/receivables
- Foreign currency transactions, foreign currency reports, periodic exchange rate evaluation, exchange profit/loss, interest cost, interest number and payable/receivable ageing calculations
- Manual or batch financial matching, matching interest difference
- Real time or batch integration, registry keys
- Bulk customer/vendor information, reminder letters
- Fixed term paper management, financial reminder
- Digital integration with banks
- Financial ratios, analysis
- Creating automatic repeated payments and accounting documents
- Sophisticated, customizable default reports, exports and creates own reports
- Full support for end-of-period and beginning-of-period transactions
- A structure that supports legislations of several European, Middle East and Asian countries, including notably Turkey and Germany

Practical Experience from:
Dörrenberg Edelstahl GmbH Engelskirchen

Foundry, tool making // 500 Employees // 195 Users

Core Competencies of the Company

Dörrenberg Edelstahl GmbH is an experienced expert in the field of metallurgy. Their business is anchored primarily in the areas of stainless steel, surface technology, investment casting, form casting, and ingots.

Application of the Module in the Company

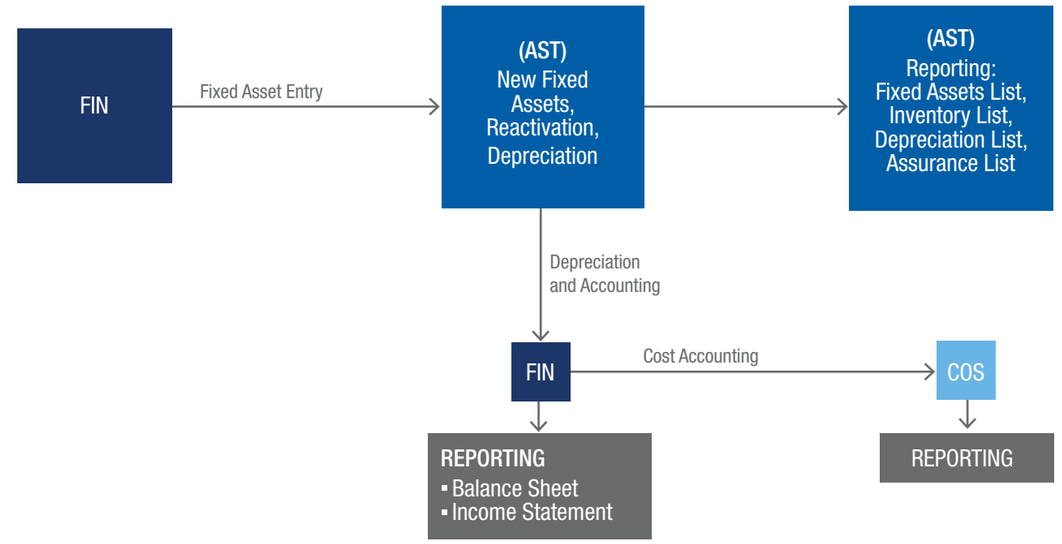
Fully integrated into the logistics modules (incoming and outgoing invoices) as well as other areas of accounting like cost accounting and fixed asset accounting.

"Through the integration of the ***canias***^{ERP} Financial Accounting module FIN with logistics modules, all outgoing invoices, including those collected in auditing, are automatically transferred to financial accounting. This prevents our business from having expensive and error-prone double entries. Outgoing payments can be created in ***canias***^{ERP} with different payment media like checks or SEPA credit transfers and forwarded to our banking software. Even in the opposite case, the importing and automatic posting of bank statements saves us a lot of time.

Furthermore, with the flexible reporting tool of our software, we are in the position to generate reports for external accounting as well as internal reports for our parent company. Also, VAT returns and recapitulative statements can be created in ***canias***^{ERP} at the press of a button and then transferred to the tax office. That significantly facilitates our daily work routine."

AST Asset Accounting

ACCOUNTING



■ AST // Asset Accounting ■ FIN // Financial Accounting ■ COS // Costing

Asset Accounting with c*anias*ERP

Enterprises acquire a great number of machines, equipment, land, buildings, plants or installations for use in their productions and services and use them in their operating activities. These assets whose primary purpose is not resale are called „fixed assets“, “non-current assets” or “fixtures”.

It is natural that “thousands” of assets are used even in small or middle sized enterprises. Due to the recurrent transactions at the end of each month and the requirement of intensive integration with the general accounting, cost accounting and purchase units of the enterprise, management and accounting of “fixed assets” necessitates very important and intensive efforts on the part of the enterprise.

Due to complete and convenient integration of ***canias***ERP with other relevant modules, the asset accounting (AST) module helps enterprises with the following after acquisition of assets (via purchase or construction):

- Registration (depreciation details, purchase and insurance details, etc.)
- Application of discounts awarded as a result of early payment
- Entering additional investments and costs incurred for the fixed asset
- Calculating and processing revaluations
- Calculating and accounting for depreciations on a monthly and when necessary daily basis
- Full or partial „sale“, „junking“
- Preparing official or managerial reports
- Assisting in physical counting and debiting operations

Reporting

The ***canias***ERP Asset Accounting module offers several default reports to meet official or managerial requirements. Reports listing depreciation amounts can be taken with the options, “realized”, “to be realized in the future” or “all”. Therefore, amounts that are written off or likely to be written off later can be analyzed.

Some examples for reports that can be taken in different options:

- Asset information lists
- Asset development (development history such as activation, discount, expenses, depreciations, etc.)
- Assets periodic developments report
- Assets depreciation amounts
- Assets revaluation amounts
- Assets special lists

Reports can be created with rich inquiry arameters and various status settings and detailed analyses can be carried out on dialogues; when desired, reports can be taken in PDF or excel sheet formats.

FEATURES OVERVIEW

- Multi „Accounting Standard“ (multi „Book“) support (capability to define and integrate different depreciation methods and periods for each fixed asset)
- Creating and accounting depreciation plans on a monthly, quarterly or daily basis
- Supporting “Staight Line“, „Declining“ or „Production Unit“ depreciati on methods
- Automatic determination and collective processing of the purchase, candidate fixed assets discount and expenses from the accounting records
- Capability to calculate special or extraordinary depreciation
- Constraint, deferred pro-rata, trace value, posteconomic life expense management
- Recording depreciation expenses at different cost centers or cost objects according to given ratios
- Creating full or several partial sales, junking and relevant accounting records
- Revaluation support
- Automatic and collective modification of depreciation method subject to setup (starting with the declining balance method and switching to the straight line method when conditions permit)
- Following up costs prior to activation (investment stage management)
- Defining five different fixed asset methods and options for each depreciation
- Accounting as idle capacity expense
- Fixed asset purchase invoice, seller, insurance, incentive data follow-up
- Asset verification (physical counting, location/debited person and status update)

Advice *from our Experts.*

Expert Advice from:
Jörg Zimmermann // Industrial Application Software GmbH

Senior Consultant // Karlsruhe

The module for asset accounting is integrated several ways in the complete solution from ***canias***ERP. On the one hand are documents from financial accounting, which were entered into omnibus accounts of fixed assets, and suggested for transfer to assets accounting. Discounts are automatically taken into account in the payment, reducing the acquisition cost of an asset. On the other hand, the write-offs from asset accounting are automatically transferred to financial accounting every month and from there go on to cost accounting. The distribution of an asset to several cost centers is just as possible as account assignment to payers or projects. This high degree of integration ensures that newly acquired assets are recorded in a timely manner. This eliminates the manual entry of imputed depreciation, so that exact monthly values – in the profit and loss account as well as in the cost allocation sheet – can be calculated.

Module Group

PERSONNEL

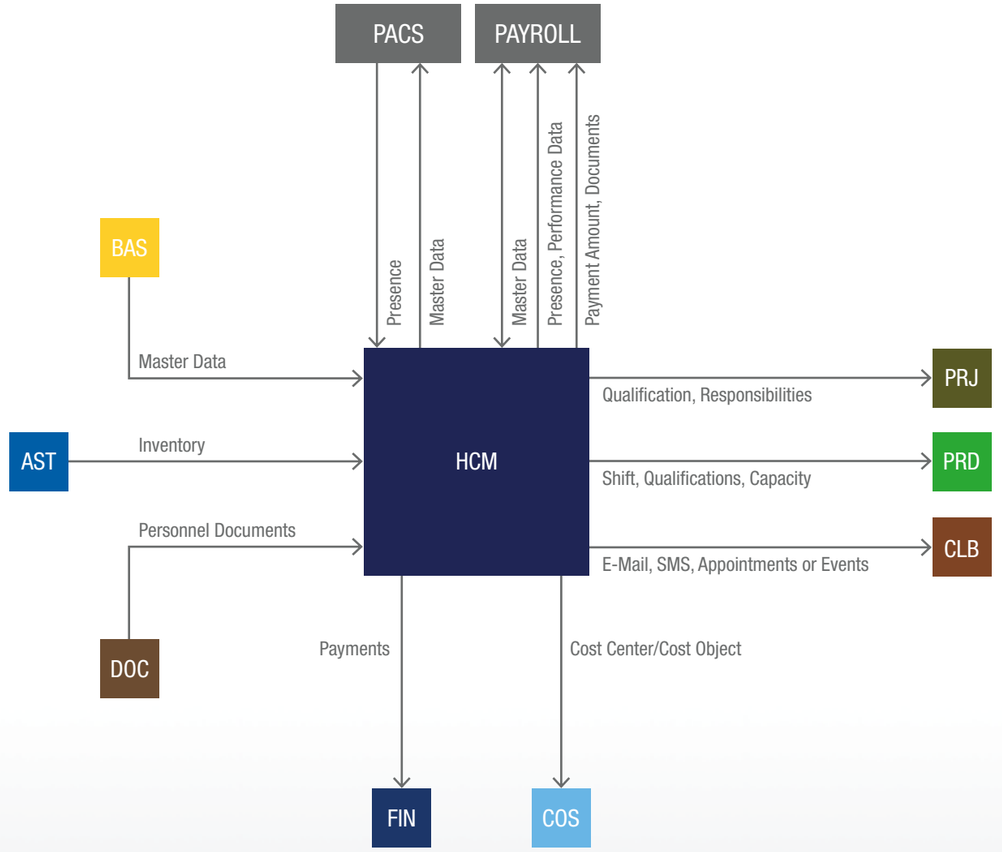
HCM

Human Capital Management

PERSONNEL

HCM Human Capital Management

PERSONNEL



HCM // Human Capital Management · BAS // Basic Core Data · SYS // System Management · AST // Asset Accounting · PRJ // Project Management
DOC // Document Management · PRD // Production Planning and Scheduling · FIN // Financial Accounting · CLB // Collaborator · COS // Costing

Human Capital Management with *canias*ERP

The ***canias***ERP Human Capital Management (HCM) module supports companies in structuring and centrally managing human resource management processes (from employee requirement planning to performance management, from training management to payroll and reporting). Therefore, both operational and strategic tasks of the human resources department can be applied much efficiently and most importantly, in a sustainable fashion.

Human capital management components are fully integrated to the ***canias***ERP system and its position within the system is shown in the graphic.

Corporate Planning

In the corporate planning section, organizational structure is formed realistically with the relevant positions and the people assigned to them. Here, data such as business requirements, qualifications that employees must possess, schools graduated, foreign languages and trainings to be received are displayed in a structured manner.

In addition, tasks, responsibilities and instruction powers are also recorded and managed. More clearly, company and employee is signed to a certain position and linked to that position. Therefore, the company and employees can access the relevant organization chart from the position structure.

Employee Selection and Placement

When a position is vacant, an employee requirement notification is created in the ***canias***ERP Human Capital Management module. This notification then becomes the subject of an application procedure. Splitting this procedure into procedu re steps and defining work packages are an important step to carry out a successful position staffing effort. Costs arising due to the application procedure, including newspaper ads, etc., are managed within the recruitment project.

Applications received are recorded in the application database and assigned to the procedure and vacant positions and evaluated according to their suitability. This is followed by interview invitation, interview and evaluation steps and then by submission of an offer and signature of a contract. The entire process is arranged and supervised in the ***canias***ERP Human Capital Management module. The application database includes classic (compulsory) data and communication details as well as information such as educational level, language competence, experiences, qualifications, references and salary expectations, which may also be seen in application documents. It is also possible to attach application documents to the digital personnel file electronically and of course, to link them to a web-based application management system.

Employee Registration Card

In the employee registration card, all operational and personal data of an employee is managed on a data group basis and it is possible to issue a new card easily and quickly with the recruitment wizard. In case of recruitment, all the data in the application process are automatically transferred to the employee registration card in the ***canias***ERP Human Capital Management module with other relevant data added (organization, legal information like social security, basic salary data, shift planning, assigned inventory, training and advanced training planning, etc.). Throughout the term of employment, days off, awards and results of recurrent employee assessments are included in the personnel file.

Payroll Management

Employee payrolls are calculated easily and quickly in accordance with the current legislation, social security types and tax laws. Payroll reports such as pay slips and total payroll, etc. can be taken. With the report wizard, userdefined reports can be generated; this report which is one of the most important reports and called a payroll list can be created automatically and quickly. Calculated payroll data can be integrated to the finance accounting module via finance registration keys. All statutory declarations that must be submitted (recruitment-resignation declaration, monthly premium and service certificate, etc.) can be quickly created.

Resignation

When an employee will resign from the company, a set of administrative actions must be taken by personnel chiefs and managers. This resignation process is carried out smoothly with the contribution of the ***canias***ERP Human Capital Management module. The system makes sure that any significant action is not omitted and for instance, that, keys or other goods have been received back with the approval of the employee. The transfer of an employee to another company is automatically carried out and the data that must be indicated in the payroll at the time of resignation (remaining paid leave, if any severance and indemnity pays, etc.) are automatically calculated.

Performance Management

In the Performance Management section, periodic assessments for employees are collected and structured. To this end, development of skills according to data received from human resources department can be tracked and the employee's personal career planning can be compared to the company's targets. If there are differences between them, relevant training measures are planned and evaluated. All existing data are used in a performance score determination process by the chief of personnel in order to make an objective assessment of the employee. Thereby, performance management enables to guide employee improvement in line with the company's targets and takes into account the personal potential and requests of the employee.

Training Management

Training management carries out effective planning of trainings, supply of resources, determination of suitable participants and evaluation of participants. It plans trainers and training sites. There may be in-house or external trainings for which attendance may either be compulsory or voluntary. In addition to evaluation regarding the training performed, checks may be carried out regarding performance targets of participants.

Employee Self-Service

In the „Employee Self-Service" section, employees may enter training requests and notify training requirements to their managers. Results of performance checks performed in the framework of these trainings can also be displayed here. Due to other functions of the "self-service center", employees may notify that they are sick, can make vacation requests or apply to positions announced within the company. Therefore, each employee has the opportunity to view approved fields in his personnel file. Vacation requests transmitted through self-service are approved in accordance with the company and decision-making hierarchy with the help of the ***canias***ERP Business Process Management module. Here, of course, situations likely to give rise to delays in the approval process are taken into account. For this purpose, automatic procedures that arrange such type of situations within the company have been created. For example, a vacation request which remains unanswered for three days is conveyed to the next unit to give a timely answer to the employee.

Manager Self-Service

In the „Manager Self-Service" section, the manager can access the data of his/her direct reports, evaluate their requests and may approve vacation as is the case with the „Self Service HCM" section. He/she may view and update issues in respect of which he/she is authorized. He/she may determine performance scores.

HCM Report Wizard

Personnel control is automated via the ***canias***ERP HCM report wizard. Therefore, all important personnel indicators can be read by clicking a single button. The capability to perform the required assessments and to design personnel reports optionally enables you to leave behind timeconsuming complex and inconsistent control procedures.

FEATURES OVERVIEW

- Corporate planning
- Employee selection and placement
- Employee registration card
- Payroll management
- Resignation
- Performance management
- Training management
- Employee Self-Service
- Manager Self-Service
- Human capital management report wizard

Advice *from our Experts.*

Expert Advice from:
David Walter // Industrial Application Software GmbH

Sales Engineer // Karlsruhe

Today's working world is characterized by technological developments, flexible work models and a changing work environment. Globally distributed teams made up of intergenerational personnel with varying levels of qualification and experience also require effective management. With a modern human capital management software, companies can effectively design their HR processes and increase their company's success.

Without employees, not only does the production fail, but the entire company as well. To prevent this from happening, ***canias***ERP HCM efficiently manages and controls HR master data, absences and qualifications of employees as well as the planning and monitoring of training. Targeted evaluations and various reports also contribute to the systematic monitoring of personnel.

Modul Group

INTEGRATION

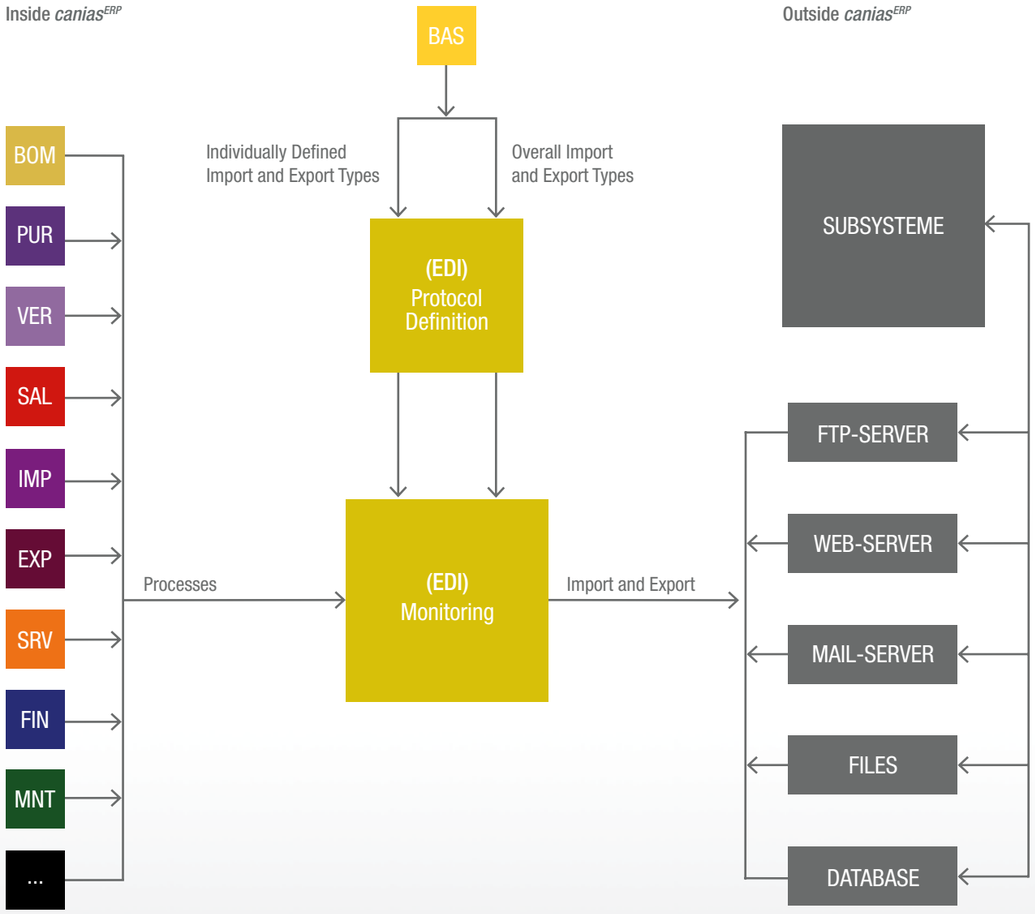
EDI

Electronic Data Interchange
INTEGRATION

EDI

Electronic Data Interchange

INTEGRATION



EDI // Electronic Data Interchange · BAS // Basic Core Data · PUR // Purchase · VER // Verification · SAL // Sales · IMP // Import Management
BOM // Bill of Materials · EXP // Export Management · SRV // Service Management · FIN // Financial Accounting · ... // All *canias*ERP modules · MNT // Maintenance

Elektronic Data Interchange with *canias*ERP

The ***canias***ERP Electronic Data Interchange (EDI) module which is integrated to the general system guarantees electronic data interchange for data and transfer of data transcending the boundaries of the system and the company. Through standard protocols (freely definable protocols can also be used), all data in the ***canias***ERP system can be exported as a complete fashion or similarly, imported data can be carried to the ***canias***ERP system completely and smoothly with the help of this module. The integration of the module with the general system is shown in the graphic.

Integrated Process Workflow

Once processes or events are defined, electronic data interchange is initiated and executed. Examples include automatic and electronic submission of purchase orders to vendors at the time they are entered or creation of relevant delivery document along with a delivery note. In addition, it is possible to create a purchase order automatically when you fall below the safety stock and to transfer it to a vendor. In such cases, no manual intervention is required due to the Electronic Data Interchange module. Another option of use is the transfer of information that arises during the execution of intercompany commercial transactions.

Defining a Free Protocol

It is possible to define a free protocol for the solution of cases which are not covered by standard protocols described above and which are specific to the enterprise. Here, it is not important whether the target format is XML based or not or whether it has been defined in CSV format, as an Excel file or in another format. This flexibility is available both for import into the system and export from the system and the required storage locations can be searched at predefined intervals in order to find and import newly added protocol files.

Due to fully integrated structure of the module, the subsequent processes in the system are not limited to the primary purpose of use of the protocol. If the relevant documents must be supplied for electronic data exchange aided communication (e.g. invoice list for batch invoices), these may be freely determined and included in the process flow. Potential next steps (e.g. keeping in the file system) may be storage in the ***canias***ERP Document Management module or automatic mail and fax delivery. In addition, all storage processes in ***canias***ERP can trigger an electronic data interchange export procedure: Thereby, for example, an automatic order confirmation can be taken via electronic data interchange during the entry of an order.

Creative Usage Capabilities

In the light of definition of a classical electronic data interchange interface and limitation of the purpose of use subject to such interface, there are other alternatives for effective use of the module. For example, via the ***canias***ERP Electronic Data Interchange module, data imports or exports may be carried out for systems used in parallel. A modern example to this is the communication established with a CAD system for change of materials and bill of materials received and processed through the module. Thereby, the changing features and data of a material at design stage can be customized automatically with the update of data records within ***canias***ERP and if necessary, new control plans, drawing versions or change indices may be determined.

Due to the fact that protocols are customizable and flexible matching can be performed (relating the data structures in the protocol and the system), the presence of new software versions in peripheral units no longer constitutes an obstacle. The matching is customized according to the new interface options in a short period of time and compared to development of an interface, this operation can be performed with less working time and manpower.

Comlete Process Control

All data transfers via electronic data interchange are displayed on dedicated screens and a log is created. Therefore, an uninterrupted monitoring may take place and a logging mechanism is created for all data ransfers, whether export or import, as well as actions performed and errors likely to occur. Due to its features such as performing an evaluation, resending and taking erroneous processes and creating a logging mechanism for such errors, the ***canias***ERP Electronic Data Interchange module becomes a high performing and reliable auxiliary tool. By ensuring combination with other modules in ***canias***ERP, an ERP system that perfectly meets the company's requirements is created.

FEATURES OVERVIEW

- The ability to use all standard electronic data interchange protocols, (e.g. EDIFACT)
- The ability to use non-standard special protocols
- Defining subsequent processes in *canias*ERP in the manner desired
- Detailed monitoring of all electronic data exchange protocols
- Log creation for errors and causes
- Monitoring import directories in the file system
- Automatic transfer of documents to the file system
- Archiving documents in the document management system
- Intercompany transactions

Practical Experience from:
Haendler & Natermann Sport GmbH
Hann. Münden

Sport, sports goods and equipment // 50 Employees // 13 Users

Core Competencies of the Company

Development, conception and production of highly accurate air rifle pellets and bullets for reloaders and muzzle-loaders (e.g. competitive, training, and hunting bullets). All production steps - from tool manufacturing via wire production to surface finishing – are carried out in-house and meet the highest quality standards.

Application of the Module in the Company

- Close cooperation with wholesale dealers
- Regular, automatic transfer of data from customer ERP systems into ***canias***^{ERP} software
- Simple and reliable integration of internal IT systems

At Haendler & Natermann Sport different areas profit daily from the integration of ***canias***^{ERP}'s EDI Module with modules for sales and inventory management. For example, the automatic importing of sales documents along with automatic data transfer to our export software EVA saves us a lot of time. This transfer of data from ***canias***^{ERP} to EVA makes it possible for us to entirely eliminate redundant data collection for customs and licensing authorities, thereby reducing the costs in our dispatch area by about 35%. With the EDI module we are also able to work together closely with our wholesale dealers. The automatic weekly acquisition of large amounts of inventory and sales data from the ERP systems of our customers into our ERP software would be impossible without EDI from ***canias***^{ERP}. This functionality makes it possible for us to clearly differentiate ourselves from our competitors and prevail as a preferred partner of wholesale dealers. Through faster data collection and increased process efficiency, we can now concentrate on things that economically bring our company real added value.

Module Group

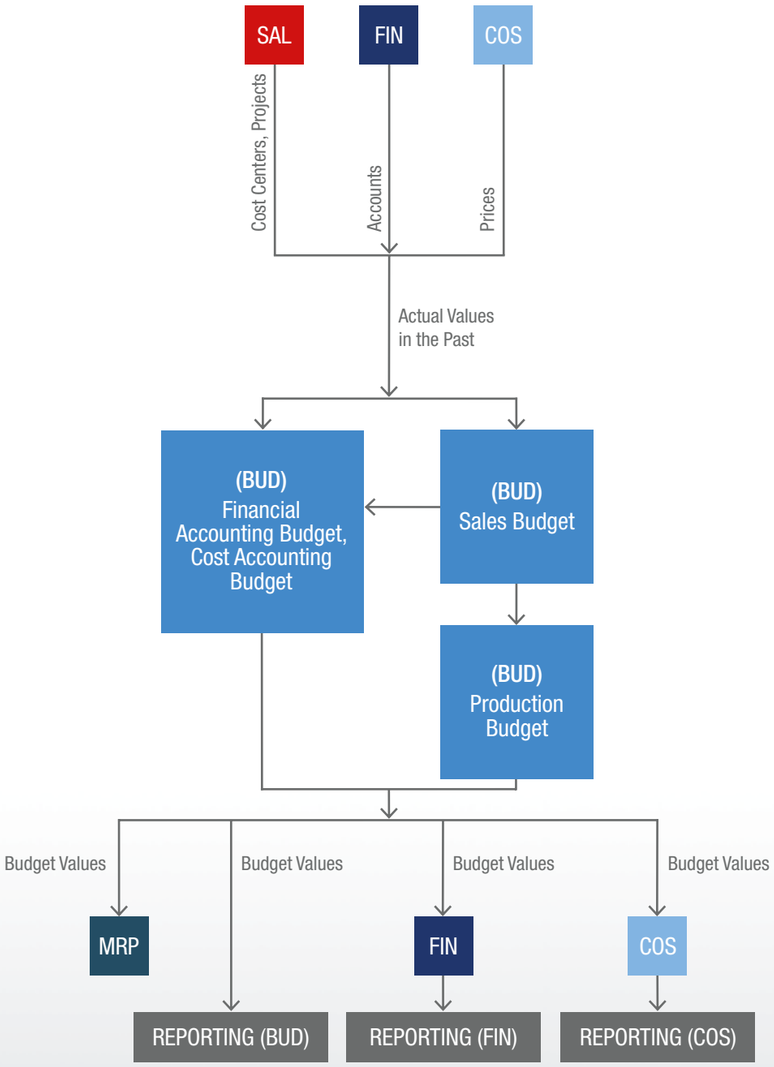
CORPORATE MANAGEMENT

BUD	Budgeting **CORPORATE MANAGEMENT**
COS	Costing **CORPORATE MANAGEMENT**
ERM	Enterprise Risk Management **CORPORATE MANAGEMENT**
BSC	Balanced Scorecard **CORPORATE MANAGEMENT**
OLAP & BI	OLAP and Business Intelligence **CORPORATE MANAGEMENT**

BUD

Budgeting

CORPORATE MANAGEMENT



■ FIN // Financial Accounting ■ COS // Costing ■ SAL // Sales ■ BUD // Budgeting ■ MRP // Material Requirements Planning

Budgeting mit *canias*ERP

Budgeting is a planning process relating to business, an important task in the scope of financial accounting and scheduling. In the ***canias***ERP Budgeting (BUD) module, a sales planning is performed with a sales-related point of view. The module covers planning activities based on financial accounting (on an account level) or cost accounting (on a cost type / cost center level).

An important objective of budgeting is to compare planned and actual values and regulate audited processes (e.g. for the purpose of reducing costs). The ***canias***ERP Budgeting module takes years as reference. Through the module, detailed information about all months can be reached under the annual plan. Any desired number of budget plans can be made for each fiscal year and one of these budget plans can be defined as the „actual budget“. In addition, plan/actual data in the past can be transferred to budget officers to create new plans. The connection of the budgeting module with other function fields enables a much efficient planning process. The integration of the module with the general system is shown in the graphic.

Sales Planning

Sales planning can be detailed in such level as required by the area where planning is to be made; it may be realized at the lowest level based on materials and customers. This means that the user can estimate which customer will purchase which material and how much. On the other hand, in the ***canias***ERP Budgeting module, it is possible to plan the sales figures with less detail; and to summarize them by customer and/or material group. Independent of the scope of planning, plan values may be recorded as one-year values; and divided into relevant months with the help of a pre-defined distribution function. In addition, the transfer function in the Budgeting module enables to produce a production plan derived from the salesoriented sales plan. By analyzing bills of materials and work plans, the purchase quantities and service types planned for production can be re-created from the production plan.

Financial Planning

The sales and production plans created constitute a source for financial planning of the enterprise. This planning which is realized on the basis of financial accounting is the focal point of the ***canias***ERP Budgeting module. Similar to sales quantity planning, a monthly plan value can be defined for a single account at financial accounting. In order to evaluate this data as required in the ***canias***ERP Costing module, such data can be changed. In general, values are split down to the levels of cost centers and cost varieties.

Reporting

There are standard reports permitting various analyses in the scope of the ***canias***ERP Budgeting module:

- Planned/actual comparison for sales figures
- Planned balance-sheet/profit loss statement (financial accounting)
- Planned cost distribution statement (costing)

As there are accounting-related plan data in the reporting tool in the ***canias***ERP Financial Accounting module, assessments specific to the customer can be made. Necessary information (e.g. planned cost calculation data) can be prepared in the Online Analytic Processing and Business Intelligence module which is available as standard within ***canias***ERP.

Connection with other Modules

The fact that the budgeting module components have fully integrated structure with the general system and connection to other modules offers numerous advantages to users. Therefore, the actual data in the ***canias***ERP Sales module can be used for the planned sales figures in the ***canias***ERP Budgeting module. If planned figures are defined without direct connection to past sales figures, users may transfer planned sales prices from the sales price lists. Plan values created in the framework of budgeting can be taken into account in the ***canias***ERP Material Requirements Planning and related processes can be used. These can be compared with actual values for reporting purposes and an infrastructure is formed for deviation analysis. Past actual values contained in the ***canias***ERP Financial Accounting and ***canias***ERP Costing modules can also be used in the accounting and reporting plans.

FEATURES OVERVIEW

- Sales planning
- Production planning derived from sales planning
- Detailed planning on a customer/material basis
- General planning on a customer group/material group basis
- Any number of distribution options for each year
- Assignment of accounts by cost centers, cost objects and projects
- Reporting tool for the creation of customer-specific reports
- Full integration with the general system

Advice from our Experts.

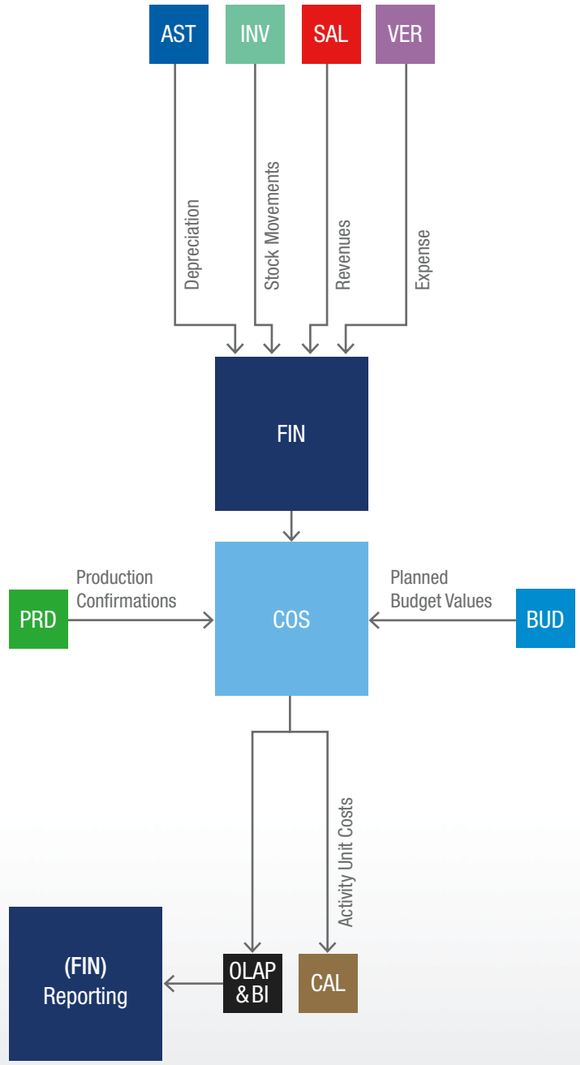
Expert Advice from:
Tomislav Zeljko // Industrial Application Software GmbH

Head of Consulting // Karlsruhe

In the context of budgeting, many companies face the challenge of supporting control through contemporary and practical IT tools. This must enable transparency in the mapping of complex data structures, and at the same time, be flexible, integrated and easy to operate. Important characteristics of the Budgeting module from *canias*ERP are sales planning, determination of resource requirements from this planning, and budgeting of cost centers and financial accounting records. These areas simultaneously form central planning parameters for medium-sized companies.

COS Costing

CORPORATE MANAGEMENT



COS // Costing ■ VER // Verification ■ SAL // Sales ■ INV // Inventory ■ AST // Asset Accounting ■ BUD // Budgeting
■ OLAP/BI // OLAP and Business Intelligence ■ PRD // Production Planning and Scheduling ■ CAL // Standard Cost Calculation ■ FIN // Financial Accounting

Cost Center Accounting with *canias*ERP

The ***canias***ERP Costing (COS) module is responsible for recording commercial transactions between the companies and the outer world and is subject to legal arrangements (e.g. HGB or EStG). Cost calculation is generally used for in-house reporting. The primary purpose is to check commercial transactions that occur within the company.

Cost Types

In the ***canias***ERP system, the expense accounts in Financial Accounting also function as cost types. Here, it is possible that they are defined as fixed or variable costs and also are summarized by forming cost type groups.

It is also possible that an account or an account type is defined subject to a cost center. The purpose of this is to guarantee that all relevant financial accounting records are transferred to cost centers.

Cost Elements

The ***canias***ERP Costing module enables defining various cost elements (e.g. production orders or projects). Cost elements that occur throughout the period can be checked with a concurrent calculation. Accordingly, costs that arise through a final cost calculation can be compared with original planned costs.

The ***canias***ERP Financial Accounting module offers access to planned costs same as those used in the area of cost accounting or form a separate budget that are taken into account only in the area of financial accounting.

Cost Centers

The central master data in the ***canias***ERP Costing module can be defined as desired without being limited to a certain number of cost centers. The defined cost centers are related to cost types (cost accounts) in the ***canias***ERP Financial Accounting module and to cost carriers (production confirmations) in the ***canias***ERP Production Planning and Scheduling and ***canias***ERP Project Management modules.

This relation enables the ***canias***ERP Costing module to run in integration with other modules.

In addition, it is possible to form cost center hierarchy by defining a superior cost center for each cost center.

Cost Distribution

For the purposes of cost entry, financial accounting records, production confirmations and if necessary stock management product movements can be grouped as primary costs. By defining a distribution key, costs in auxiliary cost centers can be distributed to main cost centers. Production confirmations, occurring costs or specified fixed rates (e.g. square meter, number of employees, telephone units used, etc.) can be used each as a distribution criterion. Using the defined distribution key, cost transfers may be carried out between cost centers. In addition, cost distributions occurring as a result of different distribution keys can be compared.

Finally, using the cost distribution data prepared, new activity unit costs that will be used as a base for future product cost calculations (e.g. workmanship duration or power consumption) can be determined. In addition, when calculating activity unit costs, instead of realized production confirmations. ideal working periods that have been defined at cost centers can be used. When the working period is not filled, the expense of the idle capacity can be accounted for via the ***canias***ERP Costing module.

Furthermore, for the data created, there are various reporting options such as cost distribution chart, annual comparison or plan vs. actual.

Integration

Due to high integration level of the ***canias***ERP system, the entry of data related to Costing is carried out in line with the document entries in the ***canias***ERP Financial Accounting, ***canias***ERP Asset Accounting, ***canias***ERP Sales, ***canias***ERP Inventory, ***canias***ERP Production Planning and Scheduling modules. Therefore, cost calculations can be performed without the need for double entries and data transfer.

FEATURES OVERVIEW

- A system that does not need recurrent records
  - Direct integration with financial accounts
  - Direct integration with production confirmation records
- Cost center hierarchy
- Distribution keys
- Various distribution methods
  - Distribution by production quantities
  - Distribution by direct cost ratios
  - Distribution by constant
- Comprehensive reporting
  - Bookkeeping and production data check
  - Cost center cost flows
  - Data consistency check
- Activity unit price calculation
  - Creating data for production cost calculation
  - Accounting of idle capacity expense

Practical Experience from: Georg Börner – Chemisches Werk für Bautenschutz GmbH & Co.KG Bad Hersfeld

Chemical Industry // 140 Employees // 50 Users

Core Competencies of the Company

Georg Börner produces roofing (polymer bitumen and bitumen) as well as hot masses and coatings and has been a reliable expert in the field of roofing and structure protection for many years.

Application of the Module in the Company

- Collection of the cost type from financial accounting and distribution with respect to allocation of cost centers (interface between financial accounting and cost calculation)
- Creation of cost allocation sheet
- Transfer log showing cost type and cost center entries within financial accounting
- Recording of primary costs
- Cost centers: Creation of an annual comparison from two years
- Cost types: Creation of a plan-actual comparison
- Construction of individual check tables for evaluation as well as construction and modification of cost centers (through integration with the basic core data module ***canias***ERP BAS)
- Budgeting/cost planning by department, cost center, and cost type (Integration with the budgeting module ***canias***ERP BUD)
- Transfer of budget values to cost center

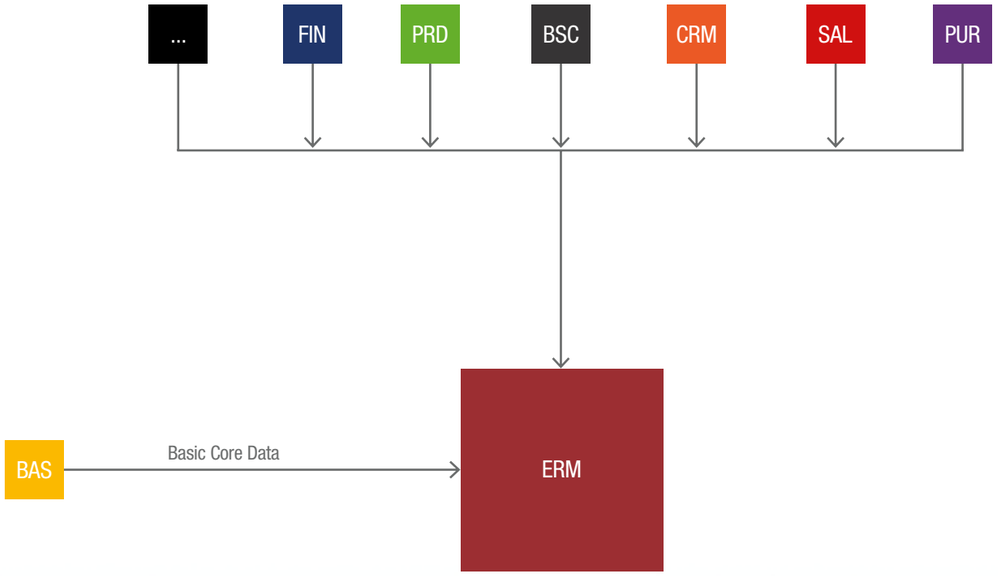
”Through the development of cost center accounting in the ***canias***ERP module COS and the ensuing monthly evaluations in different configurations based thereon, our information is always current and the costs are transparent. Thereby we obtain annual comparisons (e.g. year-to-date vs. previous year) as well as plan-actual comparisons of cost centers and cost types on a reliable basis, and can then determine cost variations down to the last detail and assess the overall development of the company. Information obtained from a consistent database has proven to be a good supporting argument in our company and helps us to make effective decisions. Furthermore, it is important to us that we can customize analysis reports through connection with the basic core data module ***canias***ERP BAS (check table concept) and orient them precisely to our information needs.

One of the most important things in our daily routine is the integration of ***canias***ERP COS with the Budgeting module ***canias***ERP BUD: whereby the costs of the individual cost centers are recorded by cost type, consolidated and transferred to financial accounting with full support of the system, making efficient business planning possible.”

ERM

Enterprise Risk Management

CORPORATE MANAGEMENT



■ ERM// Enterprise Risk Management ■ BAS // Basic Core Data ■ ... // All *canias*ERP moduls ■ FIN // Financial Accounting ■ PRD // Production Planning and Scheduling
■ BSC // Balanced Scorecards ■ CRM // Customer Relationship Management ■ SAL // Sales ■ PUR // Purchase

Enterprise Risk Management with *canias*ERP

The ***canias***ERP Enterprise Risk Management (ERM) module is a systematic and detailed process describing critical risks, measuring potential impacts and introducing integral risk management applications with a view to maximizing the economic value of an enterprise. From this perspective, enterprise risk management is the process of identifying, measuring and minimizing risk factors likely to have an adverse influence on operability of an entity or institution and particularly on profitability of a commercial enterprise.

Economic and technological developments have given rise in time to emergence of sophisticated business structures where a wide range of activities are carried out with several persons and through long processes and hierarchical organizational systems continually evolve. As a result, enterprise activities are no longer traceable with simple control methods. COSO (the committee of sponsoring organizations), consisting of five independent professional organizations in USA has pioneered in standardization of internal control in enterprises. COSO internal control model is a multi-dimensional structure comprised of internal control environment, risk assessment, control activities, information and communication and monitoring activities and shaped around the objectives of efficacy and efficiency of enterprise activities, reliability of financial reports and compliance with laws and regulations in effect.

Later, risk management system standards have been established with ISO 31000 risk management system standard. ISO 31000 risk management system standard recommends enterprises to develop a framework the purpose of which is to integrate the risk management process with the company's management, strategy and planning, administration, reporting process, policies, values and culture and to implement and continually improve that framework. The ***canias***ERP ERM Enterprise Risk Management module has been formed in compliance with these standards.

General Operation

There are four basic risk groups in the ***canias***ERP Enterprise Risk Management module.

- Strategic
- Financial
- Operational
- Compliance/Disaster

The following steps are followed for the management of risks in the ***canias***ERP Enterprise Risk Management module:

I. Determination, identification of risks and specifying the corresponding risk group

Companies determine risks taking business processes into account. Assigns responsibles and managers for risks. Identifies risk measurement periods and how measurements are performed.

II. Assessment of risks

Primary risk assessment methods used:

- Brainstorming
- Scenario analysis
- Profit/cost analysis
- Root cause analysis
- Fault impact analysis
- Result/probability matrix

III. Operating risks, ranking risks according to results and determining risk control methods

Risk control methods used:

- Avoidance: The enterprise terminates the activity
- Prevention: Reducing the possibility of risk occurrence
- Protection: Reducing the impact of risks
- Distribution: Distributing activities to ensure that all activities of the enterprise are not harmed by the risk
- Transfer: Transferring risks to third parties or entities

IV. Selection, implementation of method to be applied and tracking risks

- Configurable module parameters
- Defining additional risk groups
- Defining possibility and impact scales
- Defining flexible measuring periods
- Using data from any module in the system

Reporting

When defined risks are run at specified times, results are shown both as a report and a graph.

Connection with other Modules

Since the ***canias***ERP Enterprise Risk Management module is fully integrated to the system, it can use any data in any module of the system to measure the risks.

FEATURES OVERVIEW

- Configurable module parameters
- Defining additional risk groups
- Defining possibility and impact scales
- Defining flexible measuring periods
- Using data from any module in the system

Advice
from our
Experts.

Expert Advice from:
Ronny Beissmann // Industrial Application Software GmbH

Senior Consultant // Karlsruhe

Business life is affected by external influences now more than ever – whether it be technological trends, customer and/or supplier decisions. Even policies and decisions from the European Union or environmental influences can have a direct impact on company philosophy and daily work. The human component – such as the resignation of individual employees or “rationalized” staff positions – can also be a risk.
We all know it: Every cause also has an effect!

According to process-oriented project management method PRINCE2 (projects in controlled environments), all processes should be examined and evaluated and have adequate policies and procedures at hand just in case. Nothing is worse than having a situation you are unprepared for at a bad time and then acting on instinct alone.

With an appropriate tool in hand, risk scenarios can be devised in advance and measures can be defined. In some cases, it is enough to have a timely escalation of a problem to the relevant person in charge who can then initiate the next steps.

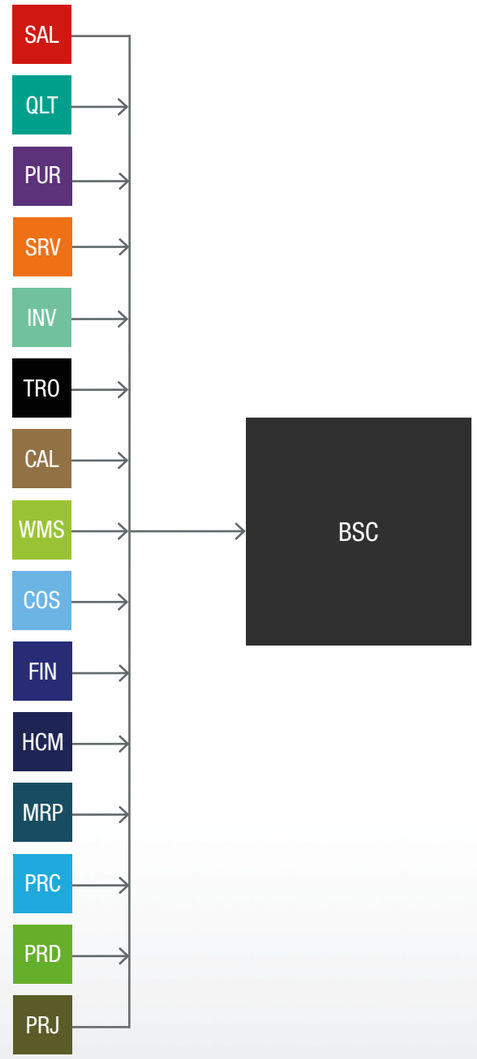
It is crucial to identify and assess potential risks early on. What some forget about this issue, however, is the fact that an identified risk and its evaluation can also lead to a (new) chance for the company.

Fixed automatism that regularly evaluates and inspects according to the parameters of a company’s stored data saves time and money. Furthermore, it gives the ability to define rules and prepare crucial information, like when information is sent every morning to a central control, providing a risk radar.

With all of these capabilities, the Risk Management module is able to support you.

BSC Balanced Scorecard

CORPORATE MANAGEMENT



MRP // Material Requirements Planning ■ MNT // Maintenance ■ BUD // Budgeting ■ INV // Inventory ■ SAL // Sales ■ QLT // Computer Aided Quality ■ PRJ // Project Management
PUR // Purchase ■ BAS // Basic Core Data ■ PRD // Production Planning and Scheduling ■ SRV // Service Management ■ TRO // Transfer Order ■ CAL // Standard Cost Calculation
WMS // Warehouse Management System ■ COS // Costing ■ FIN // Financial Accounting ■ HCM // Human Capital Management ■ PRC // Production Costing
■ BSC // Balanced Scorecard

*canias*ERP Balanced Scorecards

The ***canias***ERP Balanced Scorecards (BSC) module aims to provide executives with a comprehensive framework whereby the company's vision and strategy is converted to and expressed as a set of consistent performance criteria. Aside from being a performance measuring system, Balanced Scorecards can be used as a management system for a strategic structure. There are four main perspectives for this management system:

- Financial perspective
- Customer perspective
- Business processes perspective
- Employees perspective

The ***canias***ERP Balanced Scorecards module enables to define new perspectives in addition to the above perspectives.

In the ***canias***ERP Balanced Scorecards module, strategic goals are described and targets are set in relation to such goals. These targets are translated to measurable performance indicators. Therefore, performance indicators indicate the current status of the enterprise and are also used to develop strategies. These strategic goals are gathered under scorecards and it is also described which perspective is effective and by which coefficient it is effective when calculating the value of the scorecard. A separate scale and work period may be defined for each target.

Reporting

When defined scorecards are run at specified times, results are shown in a tree structure defined both as a report and a diagram.

Connection with other Modules

Since the ***canias***ERP Balanced Scorecards module is fully integrated to the system, it can use any data in any module of the system to measure the scorecards.

FEATURES OVERVIEW

- Configurable module parameters
- Defining new perspectives
- Designing a flexible scale
- Practical scale multiplexing
- Using data from any module in the system

Advice *from our Experts.*

Expert Advice from:
Nicolas Ziegler // Industrial Application Software GmbH

Consultant // Karlsruhe

The Balanced Scorecard (BSC) method supports a balanced and implementation-oriented approach to company management by means of a performance measurement system. With this, the performance of the organization is seen as a balance between financial management, business processes, customers and employee development and then clearly arranged on a table (scorecard).

The BSC module of company software ***canias***ERP offers the ability to automatically determine key performance indicators from the period-related actual values in the ERP system and to manually enter additional data as needed.

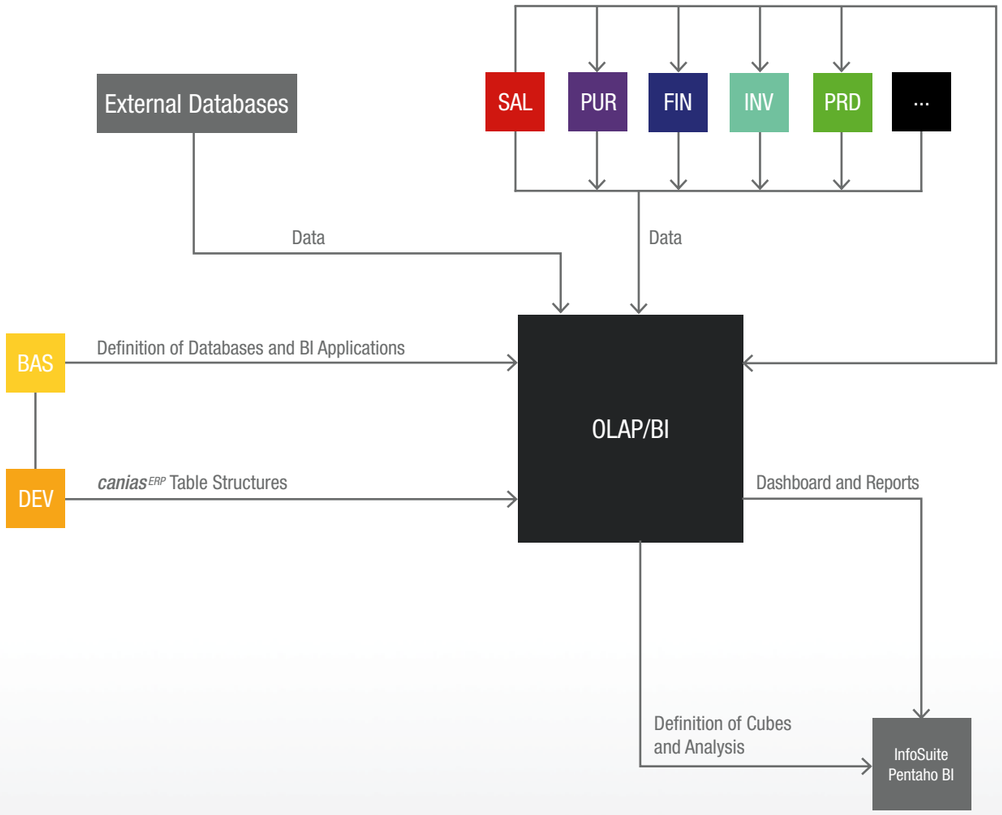
The performance indicators and their achievement in individual periods are visualized within ***canias***ERP BSC graphically and in table form. In this way, the system presents the actual realized indicators with the defined target values, percentage changes compared to the previous period, and the respective threshold values in a clear way.

With this module, your central "key figures" (key performance indicators) are automatically determined in a company-individual control station and the differences between target and actual values per period are shown in a transparent design. Thus, higher-level targets are easier to operationalize.

OLAP & BI

OLAP and Business Intelligence

CORPORATE MANAGEMENT



■ INV // Inventory ■ SAL // Sales ■ PUR // Purchase ■ BAS // Basic Core Data ■ PRD // Production Planning and Scheduling
■ FIN // Financial Accounting ■ ... // All *canias*ERP moduls ■ DEV // System Adnimistration and Troia Development Environment ■ OLAP/BI // OLAP and Business Interlligence

Online Analytical Processing and Business Intelligence with *canias*ERP

The ***canias***ERP Online Analytic Processing and Business Intelligence (OLAP/BI) module ensures that data necessary for decisions to be taken company-wide are accessed, are quickly analyzed, evaluated multidimensionally and prepared visually. In this process, it aims to minimize user contribution and automate reporting work. In connection with InfoSuite or Pentaho BI, it forms a total business intelligence system.

Use of External Data Resources

The ***canias***ERP Online Analytic Processing and Business Intelligence module has a homogenous structure fully integrated to the ***canias***ERP system and is a comprehensive application that guarantees integration with external data resources and contributes to decision-making processes. The ***canias***ERP Online Analytic Processing and Business Intelligence module offers users the data in its own data warehouse and also enables to use data in data warehouses established in other databases. Thus, data can be collected centrally and independent of their sources; decisions that bear importance for the organization can be taken smartly and effectively.

Multidimensional View of Data and Flexibility

The ***canias***ERP Online Analytic Processing and Business Intelligence module aims to format the company's critical data in a standardized and structured way and to present them to users multidimensionally for an efficient analytic inquiry. OLAP cubes created from OLAP tables that are derived by using internal and external databases enable to view data multidimensionally and in horizontal and vertical axes. The capability to view data multidimensionally provides flexibility to reports prepared.

Faster Data Transfer for Decisionmaking Processes

The ***canias***ERP Online Analytic Processing and Business Intelligence module integrates voluminous data belonging to the company's business lines and the data in external databases. The module offers the opportunity to view data multidimensionally in horizontal and vertical axes. Visualization operators like „dashboard" can be used in the module. Therefore, it easily and automatically provides support to decisionmaking processes of the company.

Easy Reporting

Due to OLAP cubes completely designed in line with requirements, each user can issue reports and analysis in very short periods.

Viewing Reports and Dashboards

The ***canias***ERP Online Analytic Processing and Business Intelligence module offers the opportunity to access dashboard and other reports prepared with Pentaho BI directly without needing third party applications.

Infosuite and Pentaho BI Integration

The ***canias***ERP Online Analytic Processing and Business Intelligence module forms a complete business intellience system in integration with InfoSuite and Pentaho BI, business intelligence applications offering an ETL, OLAP cube, reporting and dashboard solution.

FEATURES OVERVIEW

- Summarizing variable OLAP tables
- Having multidimensional examination capability
- Presence of dimensions and boundaries in grouping
- Switching from detail to summary and vice versa
- Viewing unlimited number of data
- Reporting application supporting tabular and graphic printout
- Comparative examination capability
- Comparative examination capability
- Data acquisition using internal and external company data
- Real-time evaluations
- Direct access dashboards and reports from within ***canias***ERP
- Integration with InfoSuite and Pentaho BI programs

Advice *from our Experts.*

Expert Advice from:
Benedikt Hirt // Industrial Application Software GmbH

Senior Consultant // Karlsruhe

There has always been a need to have early recognition of relevant developments, to continually be in the loop, to support decisions with concrete analysis and to have all the facts and data. However, the demand for modern business intelligence and a large, central data pool is becoming increasingly important.

The core competence of OLAP Cubes (online analytical processing) is evaluating the data from various sites contained in this pool. The ability of the company software used to examine all the contents of a data cube in not just a single but also a multidimensional way is very valuable. Furthermore, the ability to bring together information from several different types of internal and external platforms, sources (e.g. the Internet) and systems plays a huge role. In this way, the company's own data can be cross-functionally enriched with additional information and interlinked. This comprehensive data base and the ability to quickly recognize relationships improves reaction speed and decision quality.

Another advantage is data consistency: Access to all information within the same database avoids having several departments perform their queries and analyses on the basis of different output data and coming up with many different (or even contradictory) results. This just goes to show: Do not trust statistics that you have not generated yourself.

It is the understanding and know-how in combination with OLAP and BI that offers large amounts of data and virtually unlimited analysis possibilities: In this way, analyses of historical values do not just deliver countless numbers and totals – rather, they show the company their weaknesses, highs and lows, trends as well as opportunities and risks. The OLAP and BI functionalities in the ***canias***^{ERP} software provide a solid and reliable basis for decision making, display the analysis results graphically and support regulation in enterprise management.

Conclusion: The more data incorporated into the analysis, the better and more accurate the results.

Module Group

OVERARCHING MODULE

CLB	Collaborator **OVERARCHING MODULE**
DOC	Document Management **OVERARCHING MODULE**
PRJ	Project Management **OVERARCHING MODULE**
KMS	Knowledge Management System **OVERARCHING MODULE**
BPM	Business Project Management **OVERARCHING MODULE**
CMS	Content Management System **OVERARCHING MODULE**

CLB

Collaborator

OVERARCHING MODULE

Communication with *canias*ERP

With the ***canias***ERP Collaborator (CLB), electronic data interchange is assured within and outside the company. Personal or general deadlines and all tasks can be managed. The graph below shows the wide capabilities offered in relation to the Collaborator module on the same network.

Integrated E-Mail-Client

With the integrated e-mail client, e-mails can be sent and received. Also, it is possible to manage more than one e-mail account concurrently. All contact information created in the address book can be easily accessed. Communication may be established with these people through e-mail exchange, telephone or fax integration.

Corporate Schedule

The corporate schedule can be displayed as a view specific to the user or as an overview for the company in general. The period to be viewed can be selected individually. Using various viewing filters such as sources (company tools, rooms, etc.) or employee groups (departments, teams, etc.), any search can be carried out within the interactive schedule and the schedule can be viewed as desired. Creation of new activities may take place manually or automatically with integral processes.

Task and Activity Manager

The task and activity manager in the ***canias***ERP Collaborator module provides comprehensive functions for the creation and management of tasks. User-definable task and activity types can be used (e.g. meeting at customer's premises, internal activity). Here, different statuses may be assigned to tasks or activities and these assignments are communicated to the user via an e-mail notification.

Console for Collaborator Functions

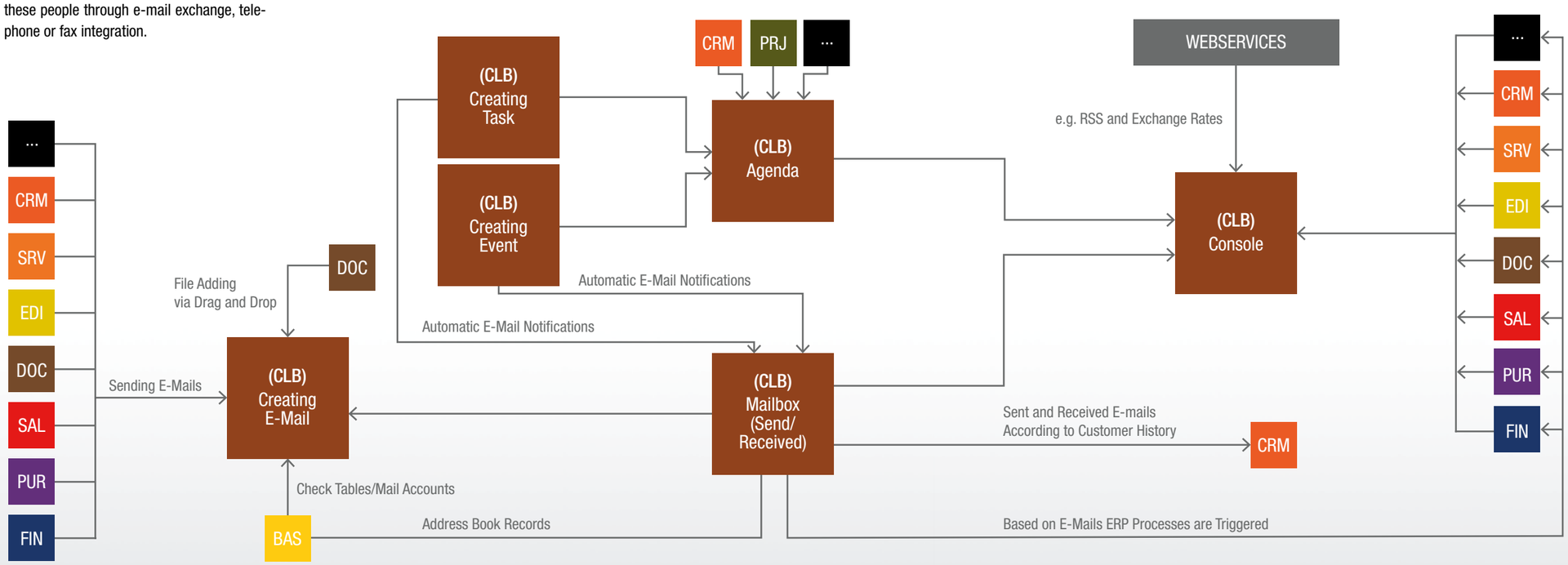
All company specific important lists and figures, obtained from the ***canias***ERP system, can be viewed on the console. In addition, jobs, pending tasks and desired indicators (including external sources) may be combined as a summary view specific to the user.

Connection with ERP Procesess

In the ***canias***ERP Collaborator module, certain processes related to e-mails can be started using user-defined codes. Therefore, the process of creating sales orders, purchase orders or production orders can be initiated directly over the Collaborator module. These processes that have been integrated to the ***canias***ERP Collaborator module can be defined parametrically.

Integration

The ***canias***ERP Collaborator module is an interactive collaborator offering numerous capabilities for personalized operation. Due to its structure fully integrated to the ***canias***ERP system, several processes can be started and individual connections can be established as desired.



CLB // Collaborator ■ CRM // Customer Relationship Management ■ SRV // Service Management ■ EDI // Electronic Data Interchange ■ ... // All *canias*ERP moduls
DOC // Document Management ■ SAL // Sales ■ PUR // Purchase ■ FIN // Financial Accounting ■ BAS // Basic Core Data ■ PRJ // Project Management

FEATURES OVERVIEW

- Dynamic customizable user console
- Creating and tracking required connections
  - Connection with other ERP modules/functions
  - Connection with external data resources and information systems
- E-mail client with desired linking functions (customers, vendors, products, projects, etc.)
- Task activity planner
  - Personal view (specific to the user)
  - Corporate schedule
- Task manager
  - Task types
- Address book, documents, etc.
- Instant messaging service
  - List of active user in the system
  - Pop-up window feature for SMS
- Connection with ERP processes

Advice
from our Experts.

Expert Advice from:
Holger Rau // Industrial Application Software GmbH

Senior Consultant // Karlsruhe

The Groupware from ***canias***^{ERP} is a completely integrated, collaborative communication solution. Using this feature, employees have access to the appointment schedule, inbox, task manager and contacts within the address book.

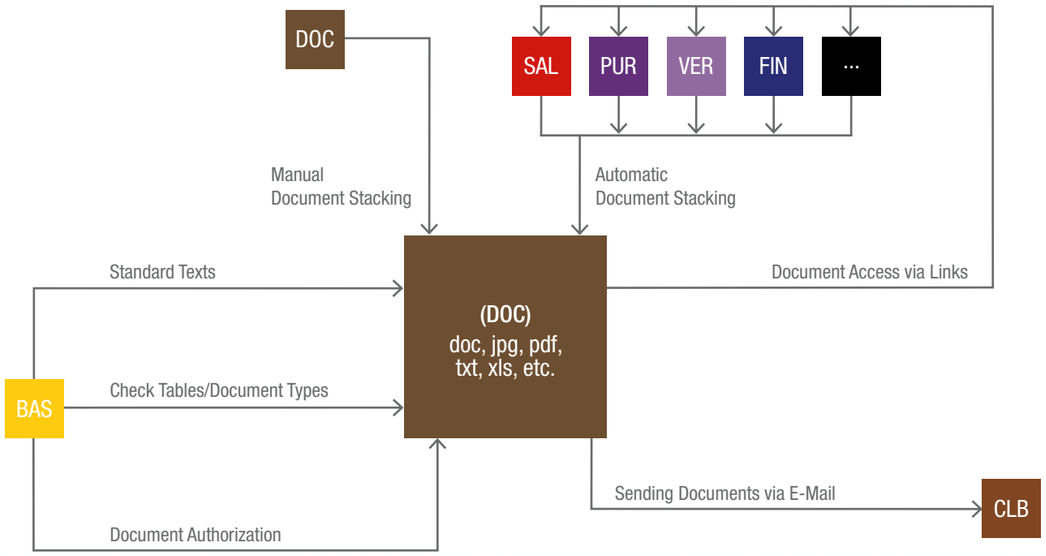
With company-wide scheduling, each employee can always keep track of their own appointments as well as those of their colleagues. The integration of ***canias***^{ERP} CLB with other modules like Sales or Purchasing allows for easy sending of e-mails from different areas of the ERP system. Documents created in the ERP system, such as order confirmations, can also be sent directly via the native e-mail client.

The ability to create sales orders, generate sales campaigns and manage subsequent processes from an e-mail increases process efficiency even more.

Another practical advantage is the start screen of ***canias***^{ERP} CLB, which can be completely customized to each individual user. This can clearly and centrally present important information from other ERP modules and external data sources (i.e. the Internet). Such targeted generated data lists – like a purchaser's list of undelivered orders – support the daily workflow.

DOC Document Management

OVERARCHING MODULE



DOC // Document Management ■ SAL // Sales ■ PUR // Purchase ■ VER // Verification ■ FIN // Financial Accounting ■ BAS // Basic Core Data ■ CLB // Collaborator
■ ... // All ***canias***^{ERP} moduls

Document Management with *canias*ERP

The ***canias***ERP Document Management (DOC) module manages a multitude of documents that occur during daily business processes and enables them to be used much effectively. The purpose of the module is to record centrally all digital documents produced within the company. In addition to one-time archiving in a uniform system, indexing and relating to other documents are among the basic functions of the ***canias***ERP Document Management module.

The requirement to provide relevant official and legal groups (e.g. tax inspectors) the number of documents to be managed and the company data in the electronic format stipulated makes it extremely important to connect document management systems to the company software.

Full integration of the ***canias***ERP Document Management module with the general system and its connection to other function fields are shown in the graphic.

Archiving Internal Documents

Sales and distribution documents and purchase documents are automatically recorded as a document within the ***canias***ERP Document Management module once they are created. This can be managed whenever desired (also from other function fields in the system). Thereby, for example, due to the existing connection with the Financial Accounting module, it is possible to access a vendor invoice that was recorded and scanned during verification.

Archiving External Documents

Any external file that has the required format can be recorded in the current folder structure.

Creating a Folder for Documents

Index creation (indexing) function in the ***canias***ERP Document Management module helps to arrange document based company processes and guarantees to re-access documents in the manner legally stipulated.

Revision-Proof Archiving

With the help of the interface added to the business partner software, it is possible to archive documents with revision protection or in accordance with legal requirements. Furthermore, in the ***canias***ERP Document Management module, revision is supported with change index and history creation date.

Efficient Document Management

Since more than one documents are generally created for a commercial transaction, these are assigned to the relevant subject and kept in a document folder in the ***canias***ERP Document Management module. Here, it is not important whether the document is external or internal or whatever its format is. This kind of assignment is closely related to execution of project works. In addition to creating a complete documentation, it enables to access relevant document swiftly every time.

Documents kept safely against unauthorized access (like all folders) can be grouped and the user is offered the opportunity to perform a structured comprehensive work. Furthermore, attached documents can be assigned a password and where necessary (e.g. change, delete, view), password is asked to conduct the action. Relating internal documents according to cause of creation (e.g. with customer or vendor master data) and keeping them automatically inside folders created for them guarantees higher transparency. Notes and other documents can be added to archived documents. Documents may later be sent via e-mail, faxed, printed or saved in other data environments. In the entire ***canias***ERP system, there is flexible user authorization logic for the management of documents. Thus, different users may be granted different authorities for view, add and change actions.

All data archived in the Document Management module and linked to a customer can be retrieved in the ***canias***ERP Customer Relationship Management module and used for sales or marketing purposes. Therefore, for example, HTML templates or the documents in the ***canias***ERP Document Management module can be used for sending e-mail. To this end, there is a pool of templates that are filled with dynamic parameters for sending e-mail and that enable to provide a standard company view.

Advantages of Integration

Central archiving of documents that occur throughout the value chain has now become a part of daily routine. Similarly, document management fully integrated to the general ERP solution plays a central role for consistent storage of data and optimization of information processes. The fact that the document management system is perfectly linked eliminates the necessity to create expensive interfaces and to link documents to external systems. Therefore, interruptions in communication/information are prevented, data quality and transparency increases and workflows speed up.

FEATURES OVERVIEW

- Archiving internal and external documents
- Supports all formats (text, image, sound, drawing, etc.)
- Quick recording of new documents
- Indexing (creating indices)
- Easy search function with keywords
- Logical links to other documents
- Easy additional processing
  - Direct e-mail sending
  - Printing
  - Faxing
  - Saving in other data environments
- Attaching notes and other documents
- Access protection specific to person (user authorities for each document/ document folder)
- Automatic user notification in case of updating or archiving of files
- Revision protected archiving with external software as per IDW PS 880
- Smooth integration with other modules and business processes

Advice *from our Experts.*

Expert Advice from:
Sebastian Neuruhr // Industrial Application Software GmbH

Consultant // Düsseldorf

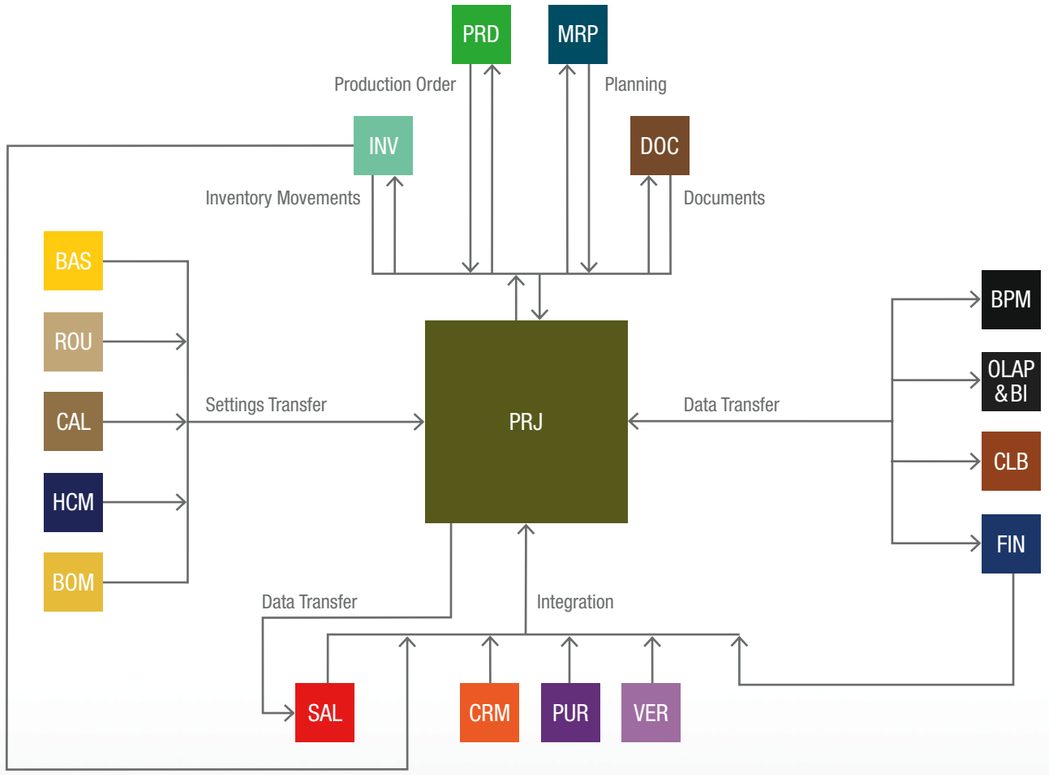
With the Document Management module from ***canias***ERP, companies can manage all documents and records that accumulate in daily business. Almost every format is supported (text, image, audio, graph, etc.). The documents are centrally stored and can be retrieved at any time. To protect data from unauthorized access, it is possible to secure documents and document folders by assigning passwords. Furthermore, individual people or groups can be assigned permission to read, modify, delete and create documents.

Employees can also archive documents, assign keywords for retrieval (tagging with keywords) and link to other documents. The creation of such links can aid in, for example, the retrieval of automatically saved sales and purchasing documents both centrally via the module as well as directly from the record, and then be printed or sent by e-Mail.

PRJ

Project Management

OVERARCHING MODULE



■ PRJ // Project Management ■ INV // Inventory ■ PRD // Production Planning and Scheduling ■ MRP // Material Requirements Planning ■ DOC // Document Management
■ BAS // Basic Core Data ■ ROU // Routes and Work Center Management ■ CAL // Standard Cost Calculation ■ HCM // Human Capital Management ■ BOM // Bill of Materials
■ BPM // Business Process Management ■ OLAP/BI // OLAP and Business Intelligence ■ CLB // Collaborator ■ FIN // Financial Accounting ■ SAL // Sales
■ CRM // Customer Relationship Management ■ PUR // Purchase ■ VER // Verification

Project Management with *canias*ERP

caniasERP Project Management (PRJ) module ensures integrated cost and resource planning as well as comprehensive planning and scheduling of projects. With the help of automatic status indicators and graphical images showing detailed project structure, a fast and reliable control of the project can be performed; the project info can be viewed in all details.

The ***canias***ERP Project Management module is fully integrated with the ***canias***ERP system; it is thus possible to use data in both directions. The connections of ***canias***ERP modules are shown schematically in the graphic.

Project Planning

In the ***canias***ERP Project Management module, the creation of a project is the first step of project planning. In a project, the enterprise project structure (EPS) is created as a table or a Gantt's chart. Then, activities, dependencies of activities, "milestones" and definition of project resources are planned in detail in graphic or tabular form. After the scheduling of activities, for the entire timeline of the project, both work flow plan and the critical path can be created comprehensively and comprehensibly.

The task plan in tabular form resulting from the scheduling provides information about the sub-steps of the project. These project-specific tasks can be displayed in the ***canias***ERP Collaborator module.

The option of using existing projects as a template for new projects or integrate smaller projects each as a sub-project for bigger projects enables to plan and manage projects much effectively.

Central management and confirmation of activities and instant viewing of all changes ensure a sensitive and effective project control. When activities are completed, an automatic feedback takes place in order to react quickly to inappropriate developments. Changes, additions and deletions can be made in project components such as activities, work centers, resources, materials or employees whenever desired in relation to existing projects. In order to have an overview of instant project status and progress, a project baseline can be created. The project baseline can be created on a cost and activity basis and displayed and compared in both graphic and tabular form. Here, taking into account costs, workflows and resources, a comparison can be performed both within the project and between different projects.

Invoice Issue

In the ***canias***ERP Project Management module, it is possible to invoice conformations of each project component individually or collectively. An invoice can be created for all costs in the scope of the project such as activity expenses, materials, resources, service types and general expenses.

Integration

The fact that the ***canias***ERP Project Management module is integrated to the ***canias***ERP Sales module enables to create and simulate projects from the Sales module. A sales document can be used as base for the creation of a new project. Similarly, resources required for a project and calculated costs can be simulated before creating a project. With the help of payment integration function, the project can be stopped if payments are not collected. Project progresses such as confirmed transactions, services or materials can be invoiced individual to the customers from the Sales module before the project is completed.

Due to the integrated structure of ***canias***ERP Project Management module with the ***canias***ERP Purchase module, data such as delivery deadline, quantity, vendor, etc. can be transferred to and managed from the Project Management module. Therefore, fast reaction can be shown to changes on the purchase side.

The fact that the ***canias***ERP Project Management module is integrated to the ***canias***ERP Production Planning and Scheduling module enables to view and schedule the production plan and production orders from the project management module. In case a project is able to meet an existing requirement in production, it is possible to schedule the production order to start only after the project is completed.

In the ***canias***ERP Project Management module, a production plan or purchase request that meets a requirement of the project can also be created.

Project Calculation

Planned cost calculations can be carried out using activities, materials and all resources and services to be used at any stage of the project. Here, target costs and actual costs for confirmed activities can be compared. Actual cost incurred to complete the project can be displayed and compared to the target cost. The project baseline can be calculated at any time and the project plan and progress can be tracked.

Central Data

The integrated structure with several modules has an important role in the ***canias***ERP Project Management module. Resources used and managed in other modules are directly offered to use in connection with the relevant document in project management. The storage of all documents centrally in the ***canias***ERP Document Management module assures an effective and wellstructured management of information. With the ***canias***ERP Project Management module, it is possible to plan and manage the projects effectively and analyze details pertaining to important factors specific to the project.

FEATURES OVERVIEW

- Enterprise project structure
- Project flow plan (Gantt chart)
- Creating different project types and groups
- Automatic project scheduling showing also deadline works and bottlenecks
- Authentic checkpoint management
- Management of project expenses
- Comprehensive display of target-actual costs, project statuses and resource usages
- Using existing projects as template for new projects
- Charging expenses through individual invoices or bulk invoices

Advice *from our Experts.*

Expert Advice from:
David Walter // Industrial Application Software GmbH

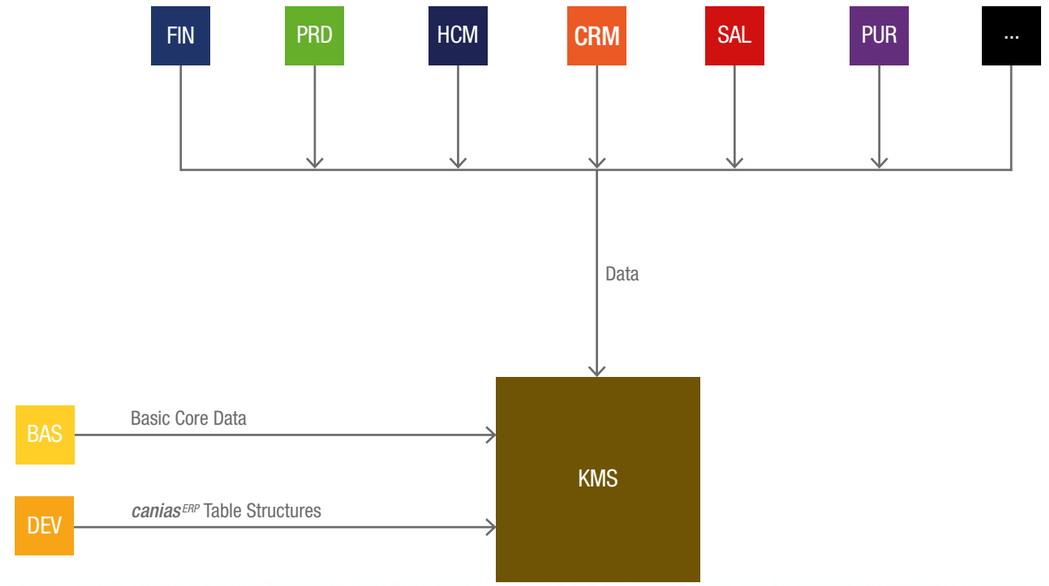
Sales Engineer // Karlsruhe

For more and more companies, complex tasks as well as their IT-based framework and execution are increasing in significance. To meet the associated requirements, companies increasingly implement inter-site projects, cross-functional project teams and efficient project management solutions.

The interaction of all processes and the mapping of the process status in a project, as well as the initialization of procedures across different areas make project management with ***canias***^{ERP} many times more efficient than it could ever be with a stand-alone system.

KMS Knowledge Management System

OVERARCHING MODULE



■ KMS// Knowledge Management ■ BAS // Basic Core Data ■ DEV // System Administration and Troia Development Environment ■ FIN // Financial Accounting
■ PRD // Production Planning and Scheduling ■ HCM // Human Capital Management ■ CRM // Customer Relationship Management ■ SAL // Sales ■ PUR // Purchase
■ ... // All ***canias***^{ERP} modules

Knowledge Management with *canias*ERP

With the ***canias***ERP Knowledge Management System (KMS) module, it is intended to arrange the existing data within the system, to carry them to the knowledge management data warehouse and to offer inter-modular access. The module aims to include tacit information such as experience, gains, etc. in the system. It offers such information in interfaces that internet users are accustomed to and encourages sharing of information and enables a much collective system.

Knowledge Explorer

This is the knowledge management system that is used to make searches within data included in the ***canias***ERP system. It enables to access the required information by making a search in the knowledge management data warehouse with a single word or piece of word. It is possible to open the relevant applications of the ***canias***ERP modules with a single click on the results.

The knowledge explorer application designed with HTML browser has a user-friendly interface that can respond to internet habits of users. The feedback mechanism which is one of the fundamentals of knowledge management is another feature of the knowledge explorer application. Users have the popular options of the day such as “like”, dislike”, “rate” or “comment“ on listed results. In the light of these feedbacks, it is possible to optimize searches and prepared statistics and reports.

Another important issue in knowledge management is to prevent loss of data. For this reason, a revision follow-up of the data in the knowledge management data warehouse is conducted. The ability to make searches for old versions of a piece of information makes it possible to utilize feedbacks of those versions.

Knowledge Encyclopedia

This application is the knowledge encyclopedia of the ***canias***ERP system. It gathers data categorized with catalogues under a certain heading and creates articles. These articles provide all necessary information under that heading in a single frame like an encyclopedia page. Thus, it becomes possible to see the big picture instead of accessing a piece of information. For example, a material catalogue can be created and a page article can be produced for each material code. In this article, basic information about the material, production data, sales/supply data, etc. can be shown together. Since the knowledge encyclopedia is offered with a template conforming to the present ency clopedia designs like the knowledge explorer, it is an ideal path to access summarized data.

FEATURES OVERVIEW

- Configurable module parameters
- Knowledge management data warehouse fed with ERP data
- Designing flexible data elements
- Providing feedback to users
- Creating libraries and catalogues
- User authorization
- Search with a single button within the entire ***canias***ERP system
- Quick access to searched documents
- Revision tracking
- Search optimizations
- Keeping search statistics
- Taking feedback from users
- Measuring feedbacks
- Creating an ERP encyclopedia with catalogues
- Familiar and user-friendly design
- Multi-language support

Advice *from our Experts.*

Expert Advice from:
Timur Kücük // Industrial Application Software GmbH

Head of Sales // Karlsruhe

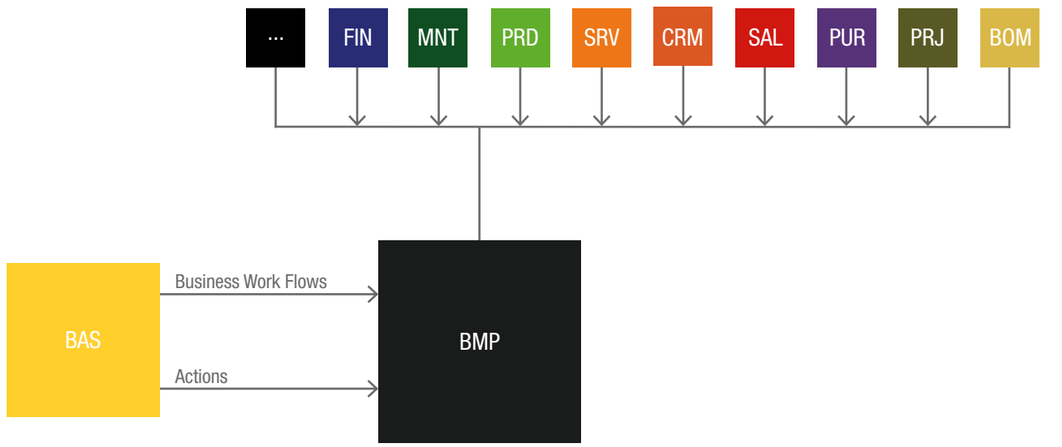
Even efficient ERP systems frequently have untapped business knowledge. Many medium-sized companies try to reach this knowledge through the “full-text search.” However, using a full-text search only searches for small pieces of information, the actual “knowledge” arises only when these pieces are put together in a meaningful way. Therefore, the type of knowledge generated from this search is in the eye of the beholder. That also means the knowledge is only available to him. ***canias***ERP takes a slightly different and more interesting way with our Knowledge Management System module: The user can individually define which areas they want to get individual information from to bundle into “knowledge.” By way of these underlying connections, ***canias***ERP KMS provides essential knowledge to users who are searching for specific information. Subsequently, the search result can be judged by the users according to a rating system. If the review is positive, the next similar search will have this result on the first page.

As a basic principle, knowledge has to be developed and moderated, which inevitably requires staff. When companies provide the necessary capacities, ***canias***ERP KMS can easily and quickly relay to employees the inter-divisional knowledge that lies dormant in the software.

BPM

Business Process Management

OVERARCHING MODULE



■ BPM // Business Process Management ■ BAS // Basic Core Data ■ ... // All *canias*ERP modules ■ FIN // Financial Accounting
■ MNT // Maintenance ■ PRD // Production Planning and Scheduling ■ SRV // Service Management ■ CRM // Customer Relationship Management
■ SAL // Sales ■ PUR // Purchase ■ PRJ // Project Management ■ BOM // Bill of Materials

Business Process Management with *canias*ERP

The ***canias***ERP Business Process Management (BPM) module supports the user in modeling, automatically initiating and then auditing the processes within the company with less cost and effort. Therefore, workflows that have a complex and heterogeneous structure are optimized from the very beginning and are implemented efficiently. The objective of business process management is generally to streamline different processes in company or a group of companies much flexibly and faster and at the same time, to minimize the risk of potential errors.

Due to use of the ***canias***ERP Business Process Management module, transactions performed in the ERP system are customized by the authorized user according to the company's special requirements. The process management module is fully integrated to ERP and for this reason, it can be used for all workflows in the relevant function fields. The graph shows the position of the ***canias***ERP ERP Business Process Management module within the general system.

Efficiency and Individuality

The objective of the ***canias***ERP Business Process Management module is to use, enhance, automate core processes and thus achieve higher efficiency. Because the user can customize and expand the workflow as he likes with the help of the Business Process Management module, requirements of the relevant departments can be met much quickly and no external programming is required. Thus, requirements specific to the company are accommodated to a great extent and a high integration level achieved.

Process Modeling

The ***canias***ERP Business Process Management module assists the user with development and display of executable business process models: all project relationships are arranged and preserved along with organizational and structural features using a standard set of rules. With well-defined procedures, working rules and exceptions, employees are given the framework of process steps to be realized.

During business process modeling, the user can access predefined ctivities and may include them as required.

- Confirmation or rejection (by a person)
- Review (by a person)
- Decision (by the system according to preset criteria)
- Voting (between more than one person or department)
- Other freely configurable activities (conversion via TROIA code)

In the ***canias***ERP Business Process Management module, activities to be carried out manually should be separated from automated activities. Each activity has its own features in addition to being manual or automated. In addition to activity selection, processes with a standard design have been developed in order to give the user an idea. These may be used directly by process developers or re-sent to the relevant points as a sub-process and integrity is achieved company-wide. Therefore, error potential is at the same time reduced. Furthermore, documents such as protocols, drawings or modeled event-driven process chains (EPKs) can be integrated during creation of workflows and well-structured automated workflows play an active role in elevating process performance and thus company efficiency.

Practical Role Concept

Well-detailed role concepts ensure that tasks to be performed are assigned to specified people, teams or several departments reasonably taking into account the relevant goal. To this end, users may be assigned certain roles during process modeling in the ***canias***ERP Business Process Management module and granted authority to execute various activities (e.g. recording and maintaining master data, managing IT systems, etc). Roles like "Salesmanager" or "Manager" can be defined freely in the proces s management module and which employees are involved in the process step related to these roles and which areas are under the responsibility of employees are regulated. A system manager carries out the assignment, maintenance and central inspection of roles. Here, each user is entitled to assign representatives for his/her areas of responsibility and to delegate authorities for relevant tasks to these representatives.

Process Control and Follow-Up

For auditing processes centrally, there are various criteria for each activity in the ***canias***ERP Business Process Management module.

In manual activities, decisions about a defined transaction are taken by the employee responsible for the process and these may be confirmed or rejected. Similarly, for instance, when there is a certain event, automated procedures such as e-mailing can be arranged. Another automation option is to add ("Timeout-Links") during process modeling. Thus, when the user does not get any response from the person responsible for the relevant task in a defined period of time, it may be ascertained that to which representative employee the task will be delegated; thanks to automation of workflows, employees are relieved of loads basically related to daily works, costs are reduced and error risks diminished. With the ***canias***ERP Business Process Management module, users are offered the opportunity to access business processes throughout the operation process and to examine relevant tasks subject to context. Thereby, you do not only have an overview of the flow of logically interrelated process steps but also information about the current status of the process. As a result of checks, one can view how a confirmed or rejected process will proceed. Thus, the user may have a general view about future activities that he/she may design. The module also guarantees a complete traceability for the whole process flow and contributes to assurance of current workflows and optimization of future workflows.

Integration with the General System

The ***canias***^{ERP} Business Processes Management module includes all tools necessary for process management and is a solution without an interface. The fact that process management components are fully integrated to the general system and have internal process connections to other modules offers numerous integration advantages to users. The ***canias***^{ERP} Business Processes Management module works with the following function fields as standard:

- Development environment
- Master data
- Purchase
- Inventory management
- Material requirements planning
- Production
- Sales
- Product cost calculation
- Quality management
- Customer relationships management
- Project Management
- Document management
- Personnel management
- Collaborator (group work with e-mail client, deadline, task management, etc.)

It is possible to link the ***canias***^{ERP} Business Processes Management module to other modules and to create and expand all processes existing in the system without further operation.

FEATURES OVERVIEW

- Customizing ERP system independently through authorized users
- Fast implementation
- Easy duty and responsibility assignment thanks to roles
- Starting the process with simple conditions in check tables
- Using templates and standardized sub-processes as a „subflow“
- Benefiting from sample processes to give an idea
- Automatically assigning process responsibility to a representative (in case of timeout)
- Viewing modeled processes in different modes (e.g. flow diagram)
- Perfect system integration enables to create workflow from all other modules.

Practical Experience from: Schneiderfilz Schneider GmbH & Co. KG Ettlingen

Technical solutions for different industries – from electrical component production for automotive and machine construction to furniture, transport packaging and overpackaging.
150 Employees // 100 Users

Core Competencies of the Company

Production of special technical items using wool felting, needle felting, non-woven fabrics, velours, foam material, rubber and many other non-metallic materials. The production program also includes laminates, stamped parts, moldings and various cuttings and strips.

Application of the Module in the Company

Modeling of new and adaptation of existing business processes, as well as means of automation.

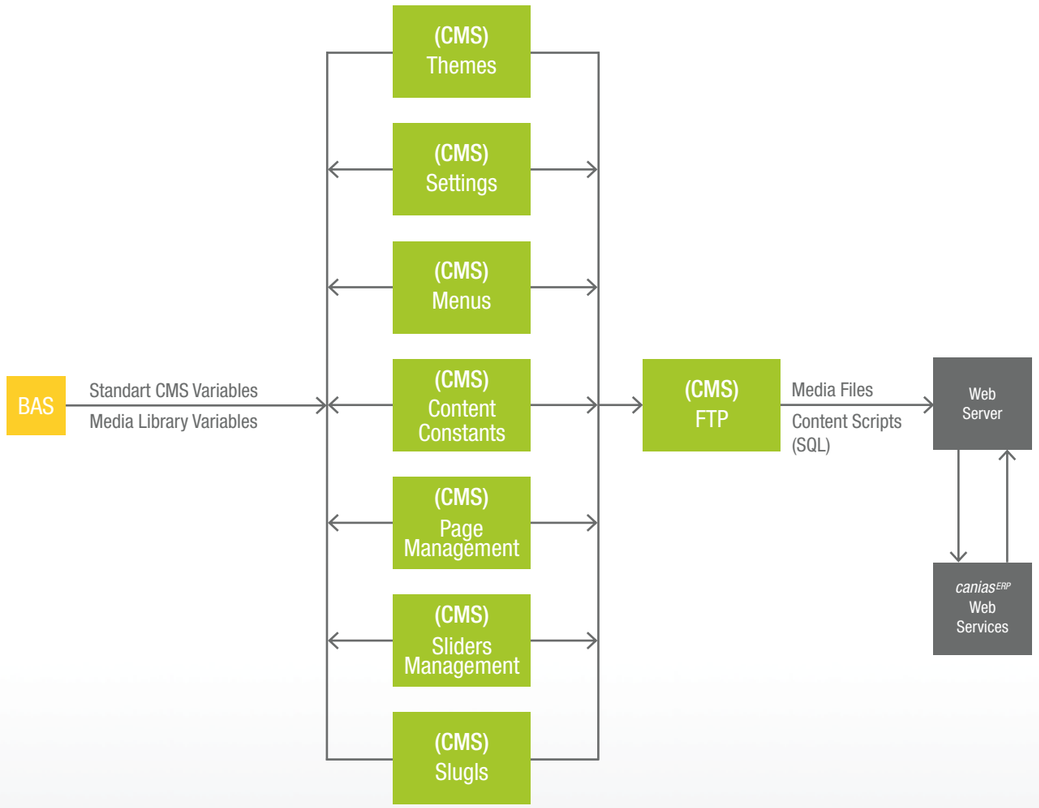
For many companies it is essential to be able to arrange their business processes far beyond simple workflows. The ability of Business Process Management (BPM) tools to not only access existing objects and containers, but also to add more at will, forms a stable and solid foundation for individualized implementation.

“As an automotive supplier, we think and work in a processoriented way. Therefore, we want the company processes mapped accordingly in our ERP-system. With the ***canias***^{ERP} Business Process Management module BPM, it is possible to easily create new business processes and adjust existing processes to new requirements.”

CMS

Content Management System

OVERARCHING MODULE



Content Management with *canias*ERP

The ***canias***ERP Content Management System (CMS) module enables to manage website content with ***canias***ERP. The purpose of the module is to create, publish, manage and update corporate data on websites easily. The module also enables to archive, update and reuse created content whenever desired. The settings, contents of the websites to be published, the media files hosted, the themes and menu structures to be used on the site are created quickly and easily with the help of the ***canias***ERP Content Management System module and sent to and published at the web server when desired, through the FTP structure provided by ***canias***ERP.

Thanks to the ***canias***ERP Content Management Module that uses the high security infrastructure of ***canias***ERP, it is not necessary to create a platform for user definitions on the website membership system, B2B, B2C portals. Detailed authorization of all users is carried out from the ERP system. Thus, types of information that the website or portal users are able to access can be determined safely and easily according to roles and tasks. The CMS Content Management System module enables to manage website content remotely with the one-hundred percent web-based ***canias***ERP system.

Multi-Support

- Theme Support: ***canias***ERP Content Management System module enables to manage different sites with different visual themes and when desired, any of the default themes can be selected and visual and functional changes made.

- Language support: The ***canias***ERP Content Management System module enables to create and manage entire website content in different languages concomitantly.

- Firm and site support: Due to the holding infrastructure of ***canias***ERP that supports multi-client feature, multi websites, B2B and B2C portals can be created on a holding level or an individual company level and managed centrally.

Portal B2B - B2C Support and Web Services Infrastructure

With TROIA, the authentic programming language of ***canias***ERP and web services rendered through its advanced infrastructure, there is no need to create a business logic over websites. The own business logic of the ***canias***ERP system can be used with web services. Thus, B2B and B2C portals that require data from the ERP system can be securely designed and easily arranged.

SEO (Search Engine Optimization) and Slug Infrastructure

The ***canias***ERP Content Management System module enables search engines to find site contents much conveniently with its slug infrastructure.

FTP Infrastructure

With the ***canias***ERP Content Management System module, contents prepared in the ERP system can be published on the website with a single button. With the FTP infrastructure provided by ***canias***ERP, it is very simple to copy files to any FTP server.

Secure Content Management

When managing your website from within your ERP system you can manage your contents with the effective security infrastructure of the ***canias***ERP system without the need for an extra user name and password.

FEATURES OVERVIEW

- New website definition
- Concurrent management of more than one website
- Management of website content without third party applications
- Higher consistency
- Customizable and changeable themes
- Social media interaction (facebook, twitter, linkedin etc.)
- Menu or category management
- Page management (create, delete, edit)
- Content management (management of fixed content)
- Management of contents such as announcements or news
- Multilanguage support
- Slider management
- FTP infrastructure
- Surveys, blogs, photo albums, videos, product management
- Easy attachment of photos and media content
- Quick access and flexibility

BAS // Basic Core Data CMS // Content Management System

Advice *from our Experts.*

Expert Advice from:
Johannes Geiger // Industrial Application Software GmbH

Senior Consultant // Karlsruhe

With its own Content Management System ***canias***^{ERP} CMS, multiple websites can be created directly in the central ERP system and are administered by it. With practical tools appealing websites can be professionally designed and the content can be quickly and easily maintained. The module ***canias***^{ERP} CMS includes fully integrated tools for web development, content management and creation of individual layouts. The intuitive user interface provides data, navigation structures and designs for each specified time for publication on the Web and facilitates the website management. As in other functional areas of the overall software there is the possibility of individual employees to assign permissions, and change their user rights at any time as needed in ***canias***^{ERP} CMS.

Module Group

INTERFACES AND SUPPLIER OVERVIEW

Interfaces and Additional Functions
INTERFACES AND SUPPLIER OVERVIEW

SUPPLIERS AND SYSTEMS
INTERFACES AND SUPPLIER OVERVIEW

Interfaces/Additional Functions

INTERFACES AND SUPPLIER OVERVIEW

Shipment Management

System	Supplier	Description
FORMAT Shipment	FORMAT Software Service GmbH	Delivery program for the processing of export and import transactions (shipping documents, barcode label, etc)
GLS Uni-Connect	GLS Germany GmbH & Co. KG	Transfer of delivery information and freight costing
ExpoWin	BEO GmbH	Transfer of delivery information and freight costing
FORTRAS	various manufacturers	Transmission of packages and package content to haulier

Outgoing Invoice Data

System	Supplier	Description
SAP-FI	SAP AG	*canias*ERP exported ASCII files of incoming and outgoing invoices, which flowby use of a standard SAP Import Tool in SAP FI
DATEV	DATEV	Creating lists of account balances. Those can be imported into DATEV. It consists the possibility to use an implementation list for the exporting inventory accounts, if the *canias*ERP account number is not corresponding the DATEV account number.
ADDISON	Wolters Kluwer Software/Service GmbH	Export of outgoing and incoming invoices from *canias*ERP by Addison
ADDISON	Wolters Kluwer Software/Service GmbH	Export of outgoing and incoming invoices from *canias*ERP by Addison
Navision	Microsoft Corporation	Bidirectional interface between *canias*ERP and Navision. Transfer of invoices and PDF documents between an Oracle server and a MS SQL Server

Faxanbindung

System	Supplier	Description
d.3	d.velop digital solutions GmbH	Allows faxing from *canias*ERP
FerrariFax	Ferrari Electronic AG	Allows faxing from *canias*ERP

Document Management System

System	Supplier	Description
Bvl Archivio	Bvl.com GmbH	Full integration of *canias*ERP (DMS) and PS880 certificated audit-proofed archiving solution „BVL Archivio“. The documents will be archived by *canias*ERP with real-time processing directly into BVL Archivio. Complete retrieval functionality with an integrated web service interface.
Easy Archive	Easy Software AG	Interface to the audit-proofed archiving system Easy Archive. Automatic providing of required documents from Easy Archive for the production via EASY-API interface. All electronically filed documents can be found quickly via *canias*ERP.
Bvl Archivio	Bvl.com GmbH	Archiving of incoming invoices.
ELO	ELO Digital Office GmbH	Storing the documents in ELO/indexing, activating the documents from *canias*ERP

Manufacturing Execution System

System	Supplier	Description
QSYS	IBS AG	**QSYS®** is an integrated software for enterprise acquisition, the management and analysis of quality-related information in manufacturing companies. Bidirectional interface via database tables and EDI-protocols. **To QSYS:** master data (products, customers) construction contracts with operations and bill of materials, acknowledgemens, good movements. **From QSYS**: quality assessment
EasyWorks	ITAC AG	Bidirectional interface via database tables, file sharing about database views. **From Easy-Works:** material master, BOMs, routings, production orders, confirmations, ordering, goods movements. **To Easy-Works:** sales orders (production orders), ordering information
Acad	IDAT GmbH	Import of the data of the technical draftsman in *canias*ERP and export to CAD of floor position information. After production and supply, the automatic invoice creation will be made.
Hydra	MPDV Mikrolab GmbH	Production order data is passed to Hydra and the acquisition information flow back in *canias*ERP
Avero	DiGiTAL-Zeit GmbH	Production order data is passed to AVERO and the acquisition information flow back in *canias*ERP

Computer Aided Design System

System	Supplier	Description
Solid Edge	Siemens PLM Software	Import of stocklists from CAD program to *canias*ERP
EAGLE PCB	CadSoft Computer GmbH	Import of stocklists from CAD program to *canias*ERP

Electronic Banking

System	Supplier	Description
SEPA	various banks	Creating XML files from *canias*ERP (transfers, basis debits, company debits, Express debits). These files can be imported of any standard banking software (SFIRM, GENO-cash etc.) and transmitted to the house bank.
MT940	various banks	Reading of electronic account statements. *canias*ERP is capable to charge the extracts automatically and clearings optionally (for incoming payments from customers). The program is trainable, so that manually carried out assignments on customer base are saved and an automatic assignment can be made for subsequent payments. **Various payment formats Switzerland** * 826 (ESR-payment) * 827 (domestic payments in CHF) * 836 (payments with IBAN in CHF and foreign currencies). Reading of ESR account statements (analogue MT940)
various banking software e.g. SFIRM, GENO-Cash	various banks	Creation of cross-border transfers. These files can be imported of any standard banking software (SFIRM, GENO-cash etc.) and transferred to the house bank.

Tax Declaration System

System	Supplier	Description
ELSTER	Federal Ministry of Finance	**Turnover tax advance return** **Option 1:** Import an XML file from *canias*ERP with the VAT data (monthly). These can be imported into ELSTER-ONLINE. **Option 2:** Direct delivery of data from *canias*ERP to the server of tax authorities via ERIC interface. **Summarized statements** Creating a CSV file from *canias*ERP. This can be imported into ELSTER-ONLINE.
IDEA	Audicon GmbH	Creating a file of all transaction data of the financial accounting of a fiscal year. This file can be imported into IDEA.
Optitax	Audicon GmbH	Optitax is a software of the company HSP which is used for creating and delivery of electronic tax accounts („e-balance"). *canias*ERP offers the possibility to transfer balances to Optitax.

Credit Limit Check System

System	Supplier	Description
EOLIS	Euler Hermes Deutschland AG	**EULER interface:** Importing credit limit data in *canias*ERP (insurers, customer no. at insurance companies, information date, credit limit, insurance beginning, insurance end, credit index, notes). The data are stored in the customer master.
Creditreform Credit Assessment	Creditreform e.V.	The solvency of customers and suppliers can be requeried by XML interface. With the XML information pure data exchange via SFTP connection takes place. Financial information (e.g. rating, credit index or addresses) are automatically added to the chosen company. The related information allow an evaluation of the credit data and serve as early warning system (for example, before creating a sales document).

Factoring

System	Supplier	Description
Coface	Coface Deutschland AG	*canias*ERP passes open items to COFACE
Factoring HELLER	heller Software Systemhaus	*canias*ERP passes bills / payments to HELLER

Sonstige Anbindungen

Integration	System	Supplier	Description
SE Stock Management System PA	CILOG	ECO-LOG	Transmission of movements of goods to warehouse management system (there automated inventory transactions, placing of storing position, ...)
Route Planning System	X-Server	PTV AG	Determination of locations to estimate the distance and time to travel for the shortest route
Consolidated Balance Sheet System	IDLKONSIS	IDL Beratung GmbH	Transferring sums balances for each company code, year, period and account type in a database table
Incoming Invoice Data	SAP-FI	SAP AG	*canias*ERP exports ASCII files of incoming and outgoing invoices, which flow in SAP-FI via a standard SAP Import Tool
TravelCost Management System	MobileXpense	MobileXpense	Reading accounting records of the travel expenses system in *canias*ERP. Export of times from *canias*ERP in travel expenses software
Accounting	eGecko	CSS AG	Transferring the financial accounting posting records from *canias*ERP
Export/Shipping	EVA	Anton Gmbh	Transmission of package data
HCM System	various systems	various manufacturers	**Various payroll interfaces:** *canias*ERP accepts wage data and generates booking records within the FIN module

Suppliers and Systems

INTERFACES AND SUPPLIER OVERVIEW

Supplier	System
ADDISION	Financial Accounting
Anton GmbH	EVA
Audicon GmbH	Idea
BEO GmbH	Beo-Atlas
BEO GmbH	Expowin
Federal Ministry of Finance	ELSTER
Bvl.com GmbH	Bvl Archivio
CadSoft Computer GmbH	Eagle Pcb
Coface Deutschland AG	Coface
Creditreform e.V.	Creditreform Credit Check
DATEV	DATEV
d.velop digital solutions GmbH	d.3
DiGiTAL-ZEIT GmbH	Avero
Various banks	MT940
Various banks	SEPA
Various vendors	Fortras
Various vendors	various banking software (e.g. SFIRM, GEBO-CASH)
Easy Software AG	Easyarchiv
ECO-LOG	CILOG

Supplier	System
CSS AG	eGecko
ELO Digital Office GmbH	ELO
Eule Hermes Deutschland AG	EOLIS
Ferrari electronic AG	FerrariFAX
FORMAT Software Service GmbH	Format-Versand
GLS Germany GmbH & Co. KG	GLS Uni-Connect
heller Software Systemhaus	Factorin HELLER
HASP GmbH	Optitax
IBS GmbH	QSYS
IDAT GmbH	Acad
IDL Beratung GmbH	IDLKONSIS
InfoSuite AS	InfoSuite
ITAC AG	EasyWorks
MobileXpense	MobileXpense
MPDV Microlab	Hydra
Microsoft Corporation	Navision
PTV AG	X-Server
SAP AG	SAP-FI
Siemens PLS Software	Solide Edge

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