

### **ERP MODULAR SOFTWARE**

2<sup>nd</sup> generation



All rights reserved – Centro Software 2012 This publication is to be considered a functional description for information purposes only and the producer reserves the right to make any changes to the products without notice. Customers are required to view the product previously to determine whether the services are appropriate for their needs. Customers are also responsible for the selection, use and results obtained from the products themselves.



"... to optimize **stock**, to fasten **production** process and goods **handling**, to increase **sales**, to interact in real time with outsiders (**customers**, **suppliers**, **agents** and **technicians**), to simplify administration and **control**, these are only some of the advantages of SAM, 2nd generation ERP Software ..."

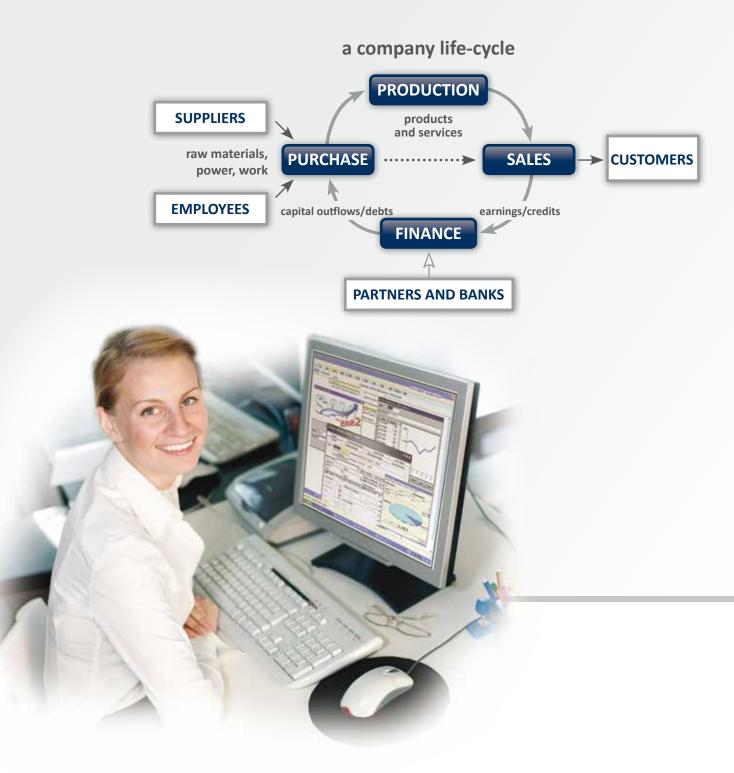




#### THE EMOTION OF PERFECTION



### **INNOVATION FOR GROWTH**





#### Advanced company management

SAM ERP2 is an advanced ERP Software, which allows to entirely manage and control both internal and external "company" processes. It is a technologically advanced cutting edge system, thanks to which web and IP telephony are used in order to achieve the best results as far as efficiency, productivity and competitiveness are concerned. It is wholly classifiable and scalable according to the company growth level, open to the outside world and, at the same time, provided with security and privacy tools.

#### 2<sup>nd</sup> generation ERP

SAM ERP2 is not a mere "ERP" (Enterprise Resource Planning). It is rather a **cutting edge MULTI-LANGUAGE ERP**, which not only manages and controls automatically all internal processes, but also communicates and interacts with **production and sales chain** all over the world.

SAM ERP2 is not a mere combination of programs developped by different companies. It is rather an **integrated** system, arising from a **unique project** and developing a combination and continuous updating of the best Italian **business solutions** and the most advanced **technologies**.

SAM ERP2 is not a mere "business software". It is rather a **new** organizational model, which boosts business efficiency through a complete waste and costs reduction according to the principles of "LEAN Organization".

#### Technology and productivity

SAM ERP2 is a unique system, not only because it is provided with technologically advanced and complete functions, but also because it simplifies proceedings, reduces costs and boosts efficiency. For instance, SAM ERP2 **customizes** each single workstation according to the specific operator's needs (personal dashboard) and displays instant **updated** graphics and data from both the internal (\*) and the external (\*\*) system.

(\*) For example, turnover per product or agent, profit per product line, break-even point, warehouse value, rolling forecast, ABC suppliers, etc.

(\*\*) For example, anything you can receive from Feed RSS: news, stock exchange prices, raw materials prices, etc.





### THE STRENGTHS OF A SUCCESSFUL SOLUTION

#### 01 Control and simplify proceedings

Business efficiency can be improved by the use of **control and development** tools. For instance, **WORK FLOW Design & Control** secures information flow and controls business activities improving as a consequence products and services quality; **ADK (Application Designer Kit)** enables each user to develop new functions autonomously in order to increase productivity.

#### 02 Use new "sales channels"

B2B and B2C **IN TERNET portals integrated** with ERP enable to launch **products** in the market more quickly and to execute sales **strategies** more rapidly. Operators communicate **in real time** with the sales force and customers, and convey their "strengths" which are usually represented not only by product's price, but more importantly by service and the related information (quality certificates, technical data, manuals, best practices, etc.).

#### **03 Increase sales**

**TECHNI CAL/SALES CONFI GURATION** fastens projecting phase. A guide to the compilation of technical data simplifies the drafting of offers, even the most complex ones. Moreover, ERP integration and **"GEOMARKETIN G"** enables to find and **display on the map** the position of prospects clients and customers, and to make the best decision as far as logistics, offers and/or budget are concerned.

#### 04 Fasten supply chain

In modern hectic times a **supplier portal** is necessary to reduce both overall lead time and defect of purchased materials and services. The "PULL" system (I purchase because I sold) **reduces** the **financial fixed assets** for stock in excess and stock obsolescence risk. Thanks to the supplier portal, the purchase office is virtually open 24 hours-a-day and, therefore, available for operators in the Far East and not only...

#### 05 Optimize logistics and goods handling

The organization and management of both **internal logistics** and goods handling through radio frequency identification with Bar-Code (**BWS**) has a double advantage: to reduce notably the commercial lead time of products and services, and to remove non-conformity when receiving or sending goods. Extra-costs for **transport** can also be reduced: the performance of "each km" is increased, the carrier is selected according to the product features, the customer's needs are fulfilled and the shortest ways are calculated with navigation tools.

#### 06 Limit financial fixed assets of the production process

Manufacturing enterprises suffering from credit crunch feel the urge to limit financial fixed assets of the production process. Therefore, a "closed loop" MRP FCS plays a key role. The purchase of materials only when they are actually required in the production process implies financial and logistics savings that were mistakenly undervalued or ignored in the past. Further analysis on profit carried out with the support of the functions "management monitoring" and "cost accounting" contribute to the never-ending search for higher profitability.



#### 07 Improve services and corporate image

An immediate SERVICE improvement is achieved by integrating VOIP DESK into ERP system: immediate display of data and information concerning the caller, monitoring of the customer's needs, reduction of waiting times in the search for the most suitable interlocutor, increased availability of telephone lines. A proper use of **CRM** (Customer Relationship Management) makes customer profiling and telephone and e-mail communications easier thanks to an innovative parsing technology and an automatic recording of sent and received e-mails.

#### 08 Develop after-sale business

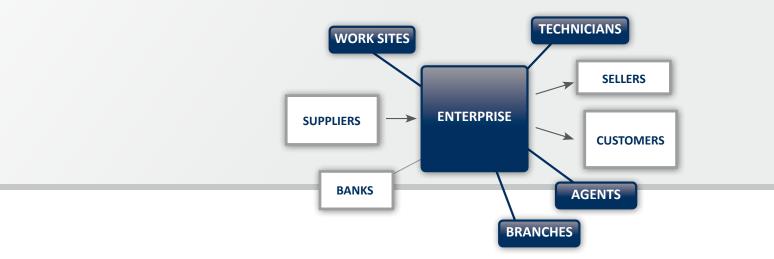
After-sale efficiency reduces management costs and, at the same time, improves **service quality level**. A proper management of service **"Ticket**", integrated with **traceability, status report** and **graphic timetable organization** (for the planning of activities) simplifies the organization of assistance interventions and of the required **spare parts**. External technicians have access to the "**service portal**" from all over the world, which allows them to see and share all necessary actions to take in order to solve a problem, the required spare parts and the status of the "installed group". Furthermore, external technicians can enter their travel expenses, thus making management monitoring and invoicing easier.

#### 09 Analyze data and share them with the users

SAM ERP2 makes significant data – out of which strategic information can be drawn - straightforwardly available. With **DATA MININ G**, based on Analysis Services of SQL 2008 and integrated with **Business Intelligence** modules, it is possible not only to process **synthesis data**, **dashboard** and **statistics**, but also to convey them rapidly and automatically, irrespective of the geographic position of the roles.

#### 10 Interact with the world

Nowadays a worldwide business interaction is essential. Enterprises which own **foreign branches** or wish to communicate with foreign operators in their local **language** feel the urge to share a single data structure and management system. SAM ERP2 can be used in various languages at the same time (Italian, English, French, Spanish and German); besides, it is customizable according to the specific requirements of each enterprise.





### THE STRUCTURE OF ERP SOLUTION





Centro Software stays close to its customers and helps them improve their processes with high quality services



### Index of areas and modules

#### 01 Area Work Flow and Common Data

- □ WORK FLOW DESIG N & CONTROL (WFD)
- AUDIT TRAIL (AT)
- □ ADK (APPLICATION DESIGNER KIT)
- PERSONAL DASHBOARD
- □ AUTOMATIC ARTICLE CODING
- □ TECHNICAL AND COMMERCIAL CLASSIFIERS
- SIZES AND COLOURS
- □ ARTICLES, COUNTER-PARTIES, TABLES (MODULE BASIS)
- □ INTEGRATION WITH DOCUMENTS ARCHIVING SYSTEM

#### 02 Area C.R.M. (Marketing and Services)

- CRM1 MARKETING (pre-sale and after-sale)
- CRM2 SERVICE and ASSISTANCE (after-sale)
- □ Integration with GEO-MARKETING
- □ WEB MARKETING PORTAL (CRM1)
- □ WEB SERVICE PORTAL (CRM2)
- VENDING (Sale Attempt)
- SFA (Sales Force Automation)

#### **03** Area SALES

- Sales CONFIGURATION
- □ SALES (Pricelists, Offers, Customer Orders)
- Sales PLANN ING (M.P.S.)
- AGENTS and COMMISSIONS
- □ MAIL Push (automatic e-mail sending)
- □ SALES STATISTICS and SALES BUDGET
- POINT OF SALE (Front-End Customers and Cash Register)
- UKEB CUSTOMERS PORTALS (BtB e BtC)

#### 04 Area PURCHASE, WAREHOUSE and LOGISTICS

- PURCHASE
- UWEB SUPPLIER PORTAL
- UWAREHOUSE e STOCK
- □ TRACEABILITY (LOTS and SERIAL Numbers)
- BWS LOGISTICS (Wireless Handling with BAR-CODE)
- PURCHASE STATISTICS and Supplier Evaluation
- TRANSPORT SYSTEM IMPROVEMENT
- □ Warehouse CROSS-ANALYSIS and ABC classificatio



#### **05 Area PRODUCTION**

PLANN ING and PLM (Product Lifecycle Management)

- MRP-I PLANN ING
- □ MRP-II SCHEDULING at UNLIMITED capacity (CRP)
- □ MRP-II SCHEDULING at LIMITED capacity (FCS)
- PRODUCTION
- □ MANUFACTURING EXECUTION SYSTEM (MES)
- Production SITES

#### 06 Area QUALITY

- QUALITY CONTROL
- TEST CYCLES
- □ EQUIPMENT and MEASURING INSTRUMENTS
- □ "NON-CONFORMITY" management
- RESOURCES and COMPETENCE

#### 07 Area ADMINISTRATIVE and FINANCIAL MANAGEMENT

FREIGHT and INVOICING

- GENERAL ACCOUNTING
- CASH MANAGEMENT
- FINANCIAL management

ASSETS

□ Other TAX compliance (VAT, 770, F24, Salaries, Withholding Tax, Conai, WEEE, ...)

#### **08 Area MANAGEMENT MONITORING**

BUDGET and Balance Sheet ANALYSIS
 ANALYTICAL ACCOUNTS and COST ACCOUNTING
 MULTI-DIVISIONAL ACCOUNTING
 BUSINESS INTELLIGENCE and Advanced Statistics
 DATA MINING

#### 09 Area INTERCOMPANY, FOREIGNBRANCHES,COMMUNICATIONS

- MULTI-LANGUAGE
- VOIP Desk (IP Telephony)
- □ FAX and E-MAIL Interface
- MAIL Collector
- Production and Sales Chain (EDI-XML)

#### 10 Area SECURITY and R&D

- Authorization and Privacy Monitoring
- SECURITY SYSTEM
- RGT (Report Generator Tool)
- □ SDK (Software Development Kit)



# WORK FLOW and COMMON DATA

Enterprises which constantly develop and improve their production process always achieve important results: a relevant increase of information flow results in a better individual productivity, internal communication, services as well as working conditions and atmosphere, and reduces working times and operating costs. All this for the customers benefit.



#### **WORK FLOW Design & Control**

All business processes are defined as a set of **rules**: documents, information and tasks ("**TO DO LIST**") are automatically transmitted from one role to the other and are **validated** step by step by the "Rules Virtual Machine".

#### **AUDIT TRAIL & Tracking**

Inspired by the rule FDA CFR Part 11 (B/11.10), it secures backwards **traceability** up to the original data of all the processes carried out in the computer system. It is necessary for the enterprise in order to have their business processes **certified**. It controls the registration of **e-signatures** and the correct compilation of data, generating status or warning messages and sending them to default e-mail addresses.

#### **ADK (Application Designer Kit)**

It is a set of tools directed to rapidly **develop** rules, **layout** and **programs** application. The best procedure flow can be designed specifically for each user, role or context, in order to increase single **productivity** and process **security**.

#### Personal DASHBOARD

SAM ERP2 desktop turns into a personal desktop: graphics and synthesis data, both internal and external, can be added to keep our daily activity updated.

#### **Automatic Article CODING**

It defines the items **coding rules**. It controls code **generation process**. Article searching is carried out through "talking code".





#### **CLASSIFIERS (technical and commercial)**

Alongside standard classifiers, it generates further **special fields**. Their application depends on the specific requirements of the various business areas.

#### SIZES and COLOURS

It includes and controls all **product versions**, in order to classify all articles belonging to the same code and model, but having different **size** and/ or **color**: sizes, colors, type of article, metric scale per country, range of seasonal colors, etc. determine the specific **finishes** that characterise each single product in sale and production processes.

#### **ARTICLES, Counter-parties, Tables** (Module BASIS)

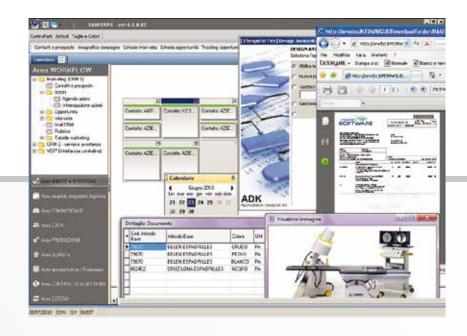
It controls all information and data used and shared by the modules of ERP system:

 products and articles: components, semifinished products and end products may be classified under various units of measure (per purchase, warehouse, handling, production, sale); may belong to families, groups, homogeneous categories, discount classes, ranges of commission; may have preferential warehouse positions (allocations), various types of stock management, purchase and sale conditions (minimum order quantity, warranty, etc.) and a **datasheet** in which all sort of information (features, instructions for use, rules or peculiar warnings, etc.) can be recorded in various languages;

- external "counter-parties": Customers, Suppliers, Banks, Agents, Employees, Carriers – each of them set up with addresses, names, delivery terms and conditions, payment terms, banks, accounting counterparts, datasheet, etc.
- 3. **general tables**: Reasons for Goods Handling, Delivery Terms and Conditions, Warehouse Allocations, Geographic Areas, Employees and Collaborators, Departments and Cost Centers, Product Lines, Bank Conditions, etc.

#### **DOCUMENTS** archiving system

All paper **documents** are integrated into the archiving system: all **issued** and **received** documents are automatically **archived** and linked to the related objects in the company database which allows a complementary archive in accordance to the law regulations. Upon authorization, **web interface** allows to have access to all documents anytime and anywhere. Preliminary stages, CRM projects as well as the collection of technical/ sale documents of competitors and service assistance, etc. are made easier by this documents archiving system.





### C.R.M. (Marketing and Services)

Customers and market oriented activities, such as pre-sale (marketing) and after-sale (services), have always been the driving force for business development.

Hectic and dynamic markets can only be dominated if CRM (Customer Relationship Management) and all technical and sale information about existing and potential customers are accurately managed.



#### CRM 1 - MARKETING (pre-sale and after-sale)

Planning of **sale actions**, including **graphic timetable** management of the different operators' **marketing activities**. Collection, archiving and management of **pre-sale** and **after-sale** marketing **information**: the former used for existing customers and the latter including customer recall, evaluation questionnaires, suggestions for new products, etc.

## CRM 2 - SERVICE and ASSISTANCE (after-sale)

**Planning** and **graphic timetable** management of all **technical activities** in support of sales force (pre-sale and demonstrations) and **after-sale service: installation, maintenance** and **technical assistance** (in warranty, by **contract**, on an **actual cost basis**).

Management and control of the **"installed group"**, **products** and related **versions**. Management of maintenance reports which record **maintenance times**, **spare parts** (with automatic stock unload), **travel** costs, reimbursement of expenses (**km**), comments. Data management for the automatic invoicing of spare parts, activities and contracts.

#### Integration with GEO-MARKETING

Digital mapping is essential to display the **geographic position** of several business information and the multiple relations between data and territory.

It is a perfect tool to provide a great **mapping of** Targets and Customers , in order to plan and perform marketing activities on the interested area, as well as to find out territory coverage and consequently plan agents network, points of sale, technical assistance and logistics platform. All this according to turnover range and distances.





#### WEB MARKETING portal (CRM1)

An easy and immediate web interface which can be configured according to each person's role and responsibility in the company and can involve the sales force, branches, distributors (those abroad too) as well as end customers in the business processes.

This web environment becomes easily the primary source for all "active users" to detect relevant information such as opportunities, offers, order tracking, structured and de-structured customer datasheets, callings reports (integration with Voip), e-mails, visits, interviews.

#### WEB SERVICE portal (CRM2)

It has been specifically developed for the staff operating from outside the company: *technicians, management consultants, technical and engineering departments, staff working for projects or preliminary phases of projects, work sites, etc.* Through this portal they check **workflow, requests** for activities or assistance and the applicant's accounting status; they confirm **appointments** on the shared timetable, enter the activities related to orders, contracts, warranty, non in warranty, and print the related **modules**, where configured.

In addition it is possible to save all the additional **costs** (hotels, flights, trains, km, road tolls, restaurants, etc.) reducing all related administrative costs as well as time and invoicing and/or final balance mistakes.

The function "**Ticket**" is incredibly useful for those companies which offer Help Desk services. The customer can directly activate the function via telephone or web, and check the progress report of the assistance requested.

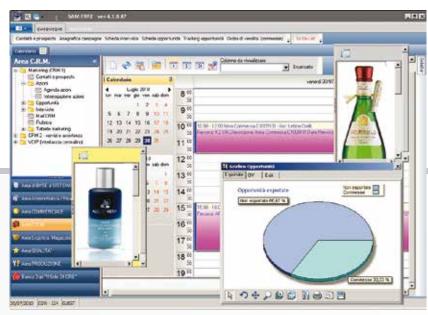
#### **SFA - Sales Force Automation**

Through this function, Smartphone, Laptop and Netbook can be used to:

- enter new orders, check related delivery and invoicing status (tracking);
- organize visits to the customers with the support of a timetable and "pocket Outlook";
- check information about the products in real time: catalogue, price list, stock, technical datasheet, pictures and images;
- check and update information about the customers in real time: personal data, applied conditions, carried out and planned services, dispatched and confirmed orders, special quotations, sale statistics, deliveries and invoices, accounting statement (outstanding payments, cash receipts, total credit, residual line of credit, risk level).

#### VENDING (Sale Attempt)

Specific **kits** (a "suitcase" with a hand-held terminal, a barcode scanner and a thermal printer) allow to **issue orders**, **bills of lading** and **invoices**, enter **payments**, **unload goods** and update "**on-the-move stock**" (car or van).







### **SALES**

Sale activities play a double role: on the one hand, they reflect the corporate image when approaching the customers for thefirst time; on the other hand, they represent the starting point for the success of all the following steps (service and production activities).

Configurations and web portals are the most immediate tools through which customer satisfaction is perceived. Yet, MPS planning, organization of price lists and offers as well as a correct study of statistics determine a smooth and efficient performances in the further steps of order confirmation.

#### **SALES CONFIGURATION**

Flexible and customizable tool, even laymen can easily insert a new product and fill in an offer or an order, simply following a series of queries and fields ruled by technical/sales guidelines. The variety of product becomes then an opportunity rather than an obstacle. According to the Customer's needs, the system automatically generates a "sale" variant of the bill of materials, which can be immediately submitted to MRP.

#### SALES (Pricelists, Offers, Customer Orders)

**Management of Prices** and sales **conditions** (connected to each item and customer), **offers** and **customer orders**. Display of suppliers' conditions, stock management and availability (so that products can be selected from stock also according to serial number or expiry date) too.

When the value of the order is higher than the customer's residual **credit**, a warning message appears. Order confirmation determines about order **commitment** and **order confirmation** via fax, xml, mail or print. **Orders** with **descriptions in foreign language, currency** value, **pro-forma** invoice and **packing list** can be generated too.

#### M.P.S. PLANNING (Master Production Schedule)

A "sales forecast plan" help **organize supplies** (purchase or production of end or semifinished products) in connection with customer portfolio or not, with or without actual orders. **Supply programs** and **open orders** for automotive, food sectors and distribution industry can also be configured.





#### AGENTS and COMMISSIONS

**Calculation, maturation** and **payment** of commissions according to the different types of **hierarchical structure** and organization of the **agents**, who may have various types of **relations** (between customers, items and agents), **geographical areas** of activity and **calculation methods** (according to profit, taxable income, amount, etc.).

#### MAIL PUSH (automatic e-mail sending)

Automatic e-mails are periodically sent to each agent. Information about the credit situation of one's own customers (for example, schedule book) is conveyed.

#### Sales STATISTICS and Sales BUDGET

Data are extracted out of the various data sources and converted into files, which are already configured for statistics on what was **sold** or **invoiced**. Data can then be **compared** to **forecast data** previously entered according to item, product line, customer, area, etc. or organized for "rolling forecast".

#### **POINTS OF SALE**

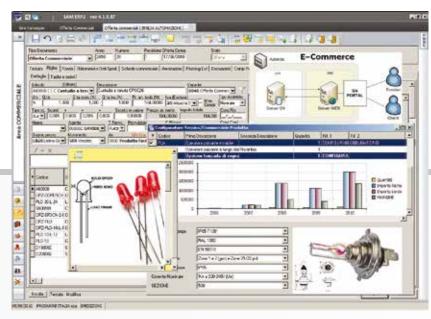
□ **FRONT-END CUSTOMERS** - Sales documents are quickly and automatically filled in simply by reading item bar code or through a batch number connected to a fiscal printer.

CASH REGISTERS - interface helping direct communication between central system and cash registers. With synchronicity, SAM ERP2 sends the cash register the data related to items and customers, and automatically receives accounting data (petty cash movements) and stock handling (goods handling).

#### WEB Customers Portals (BtB and BtC)

The new web portals include both **B2C** (Business to Consumer, that is from the company towards the outside world) and **B2B** (Business to Business, that is from company to company). Web portals perfectly comply with the central system. Both displayed information and graphical interface can be administered directly from the management information system without having the bare technical web knowledge. In particular, there are:

- WEB CATALOGUE → it is a virtual window, where a selection of the items taken from the management information system is displayed. The user may create specific hierarchies and categories, look at availability, price, price reduction, technical datasheet, pictures and images of the selected item.
- ON-LINE ORDERS → orders can be entered online by means of a shopping basket. After order confirmation, the order is entered into the management information system as "web order"; the customer may then see its status report in real time (tracking).





### PURCHASE, WAREHOUSE and LOGISTICS



To simplify relations with the suppliers, fasten goods handling, avoid the related mistakes, optimize stock management are the first steps to take to reduce costs and improve company overall performance.

Traceability and optimization of freight activities are further steps to take to secure goods transfer and face the obstacles of nowadays markets.

#### **PURCHASE**

Management and control of purchase conditions (main, secondary or occasional suppliers), related price lists (price reduction, delivery terms and multiple units of measure included), purchase orders (foreign currency, scheduled deliveries, per e-mail or fax), reminders (listed according to production or sale priority), goods and invoice receipt, framework agreements and "calling orders".

#### **WEB SUPPLIER Portal**

Through this portal users communicate with the company suppliers about **requests for quotation, order confirmation, delivery date, update**, the creation of **labels** for batches or single products with barcode (which can be printed out by the suppliers themselves in order to immediately identify the items). This **reduces times** and **costs** when **conveying information** and, especially if associated with BWS "Logistics" module, when **moving goods** within the **production process**.

#### WAREHOUSE and STOCK

Management and control of all locations (warehouse, production area, consignment stock c/o customers or suppliers, etc.); automatic goods handling, distinguishing between booked, ordered or available quantity; calculation of minimum stock, asset turnover and terms of insurance for each item; lists of items below minimum or at maximum stock level; stock management of consignment stock, goods supplied under approval or in contract work; inventory in rotation; supplementary records for stock accounting with related VAT book and editors register.





### TRACEABILITY (LOTS, SERIAL Numbers and FOOD traceability)

Materials handling is **monitored** (through **serial** or **batch number**), in order to know exactly which component **was used for which** end product (for example, for warranty) or **where** the components of a specific product are **from** (**Supply Chain Management**); monitoring of the **location** of each item; **F.I.F.O.** stock (**entry** and **expiry date** included); link between incoming and outgoing delivery notes (stock-account of the goods) for those companies doing **contract work**; monitoring of batches; adequate food traceability system for each substance and product (processed, semi processed or non-processed products), in compliance with Food Law CE 178/2002.

#### BAR-CODE LOGISTICS (BWS – Barcode Wireless Store)

Goods are monitored and handled through bar-code reading. Some wireless terminals, which are connected in real time with the central system, are used for this purpose: entry, delivery, stock picking, displacements, inventory, check, etc.; monitoring of Areas (Lanes/ Floors/Columns), loading units; space optimization; dynamic stock mapping, etc.

#### TRANSPORT SYSTEM IMPROVEMENT

Deliveries are organized according to the features of the means of transport (capacity, type of side rail, refrigeration, etc.) per product and customer, and to the prices (per carrier, pallet, weight, volume, etc.). Out of the function "delivery check" users can get a range of carriers who, as far as "default routes", unloading and covered areas are considered, can deliver the goods. Furthermore, simulations can be carried out in order to eventually organize collection of goods from the suppliers on the way back. The layout of the carrier's invoice is automatically generated, fastening thus their check, their transfer to the accounts and the precise determination of freight costs.

#### Warehouse Cross-Analysis and ABC classifications

The results of **ABC**-logic are applied to and matched with **stock** and **use** values: in this way, a matrix is obtained, which shows which items have **more or less stock** than required (**obsolescence** or **stock out risk**).

### PURCHASE STATISTICS and Supplier Evaluation

Data and graphics on purchase and on **cheapness** and convenience of the various **items**. **Overall supplier evaluation** in relation to the necessary requirements for company certification .





### PRODUCTION

Planning and control of production processes through a highly developed ERP, as well as monitoring of all internal and external production phases are the key strategies in the reduction of overall response times, financial and logistics costs. Also the stock optimization and reduction depends on the attention paid to the organization and planning of production processes.



#### PLANNING and PLM (Product Lifecycle Management)

Production phases, processes and bills of materials are defined by means of technical drawings, images, documents, editions per date, etc. Bills of materials can be generated with CAD technology; they can include different variants so that different production methods can be applied and they can improve the production of "similar" items. Production and cost quotation can be calculated for each end or semifinished product; items subjected to wear and tear are highlighted, so that price lists for spare parts can be easily generated; editions of bills of materials and the related validity dates are monitored according to stock availability. The planning stage can be better performed thanks to an automatic acquisition of the technical-sale catalogue from the company's component suppliers (ex. Medel format).

#### **MRP-I PLANNING**

The amount of goods to be purchased and produced determines a significant stock optimization and reduction of storage costs. The related **delivery date**, warehouse **stock** as well as "**dynamic availability**" (**booked** or **shortfall** amount, **demands** related to sale or production orders already confirmed and purchase or production orders already issued, and sale **forecast** - **MPS**) are considered too; supply programs, **open** sale orders, **framework** agreements and "calling orders" are monitored too. According to the required **delivery date**, the system suggests the orders (purchase, production orders or contract work) to the most appropriate suppliers highlighting all the possible critical points.





#### MRP-II SCHEDULING at UNLIMITED capacity (CRP)

Division of work to human resources and business plants (first stage machining) according to the sequence of orders and the relations between production stages and production cells. Through workload analysis, possible critical situations are spotted and the resources required to satisfy the market's needs are identified. Daily workload can be displayed for each division (highlighting orders and customers) and Gantt diagram for each production order.

#### MRP-II SCHEDULING at LIMITED capacity (FCS)

Division of work to human resources, where delivery dates and product availability are taken into account, according not only to order planning (MRP-I), but also to the company's actual production capacity. Plants, machinery, timetables, priorities and the relations between production stages, production cells and cost centres are thus taken into consideration. Aiming at a prompt and complete intervention, "dispatching lists", sequence analysis and Gantt diagrams are available for each production order (the graphics of Gantt diagrams can be changed in order to modify scheduling and save different scheduling plans).

#### PRODUCTION

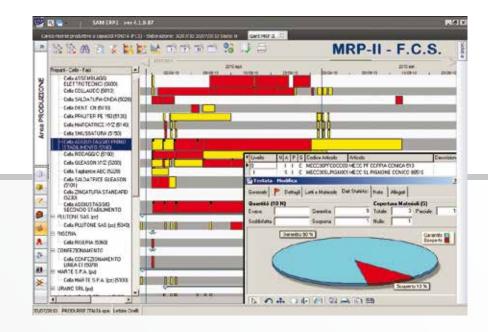
Overall executive **production** management and monitoring, both within the company and by external suppliers: production orders, bills of materials, production sheets, "collection" check (for batches of production orders or orders), work in progress, timing analysis, contract work and outsourcing, immediate check and valorisation of accomplished production stages, work in progress, and materials availability.

#### Manufacturing EXECUTION System (MES)

**Real-time** monitoring of the **resources**' (plants, machinery, staff) **status** and **use** through **synoptic table**. Its main features are: **registration** of **production times** through bar-code, **self-learning system** of production processes, **registration** of **timesheets** in order to **balance working hours**, **graphics** showing each person's performance in real time, **maintenance** of plants and machinery.

#### **Production SITES**

Management and monitoring of **public** and **industrial production sites**: **quotations** and **prices** for **works**, management and location of **means** and **tools**, **material handling**, **daily reports**, **cost check** (labour, materials, tools, general costs, amortization), **profit**, **work in progress**, **final balance** (cost/benefit) and **statistics**.







### QUALITY

To win over competitors, two features are of paramount importance: creativity and quality. Imagination, which feeds creativity, must equate with rigorous effort to achieve quality. Quality control over products and materials is guaranteed by rigid goods receipt procedures, well defined test cycles, precise and regular supplier evaluation and accurate registration of both resources and tasks.

#### **QUALITY CONTROL**

Monitoring of **items** which **are tested in the receiving area** (goods receipt) or during the **production process** (internal and external, both *"in process"* and *"post process"*), and assignment of the related test cycles. Tests guarantee the production progress of orders along with quality control which consists of well defined tests and statistical process control, linked to production processes and stages of production orders.

#### **TEST CYCLES**

All **steps and operations** required to ensure that the product and the production stages comply with the required quality parameters are managed and monitored. Test cycles are carried out both on every piece or on **random** samples.

#### EQUIPMENT and MEASURING INSTRUMENTS

Maintenance procedures and rules, distribution lists of documents and operating procedures (quality manual) as well as automatic bill book (for the equipment "state") are available for the equipment used in quality control.

#### "NON-CONFORMITY" management

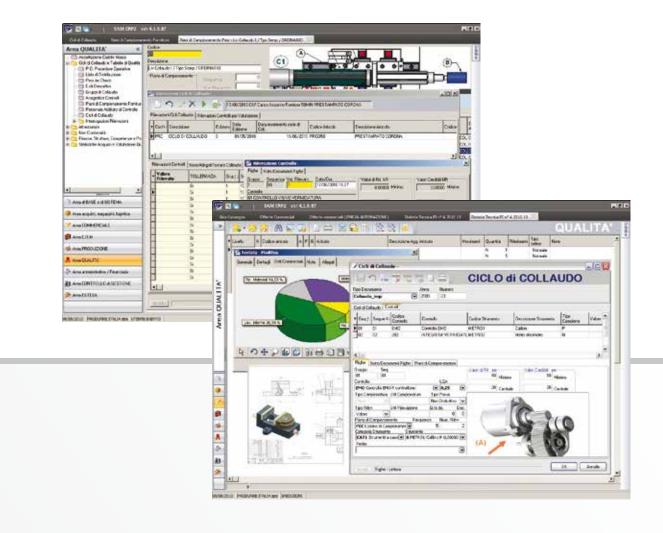
Registration of internal and external non-conformities which don't comply with the required parameters for products and services; suggestions for **repairing actions** and **complaints** to the supplier





#### **RESOURCES and COMPETENCE**

The "intangible value" of both internal and external human resources, included in the *Vision 2000 – ISO 9004*, is managed and monitored: organizational processes and procedures, infrastructures, courses, job descriptions, skills, training programs, past experiences and ambitions; a business *dashboard* is available and used to identify all resources (*employees, collaborators, suppliers, contacts*), to monitor their improvement and suggestions (related to processes, product lines, products or structures) and to motivate them with incentives and rewards. The goals are: to boost proactive behaviour and creativity, to check the effectiveness of what is being taught and to increase one's own self-consciousness about their role in the achievement of the company quality goals.







### ADMINISTRATIVE and FINANCIAL MANAGEMENT

To manage a business and be untroubled means to wholly trust its administrative and financial functions.

A developed administrative management must be based on prompt and precise of the company's accounting processes, secure tax compliance, regular check of cash management and financial flows, forecast of future balance for each bank account and customer exposure to risk.

#### **FREIGHT and INVOICING**

Bills of lading, receipts, direct or delayed invoices, credit notes, packing lists, automatic generation of stock rotation and memorandum book, sharing of additional costs, automatic sending of documents (per e-mail, XML or Fax – *no letter post!*), automatic data processing for Intrastat listing, and individual overall or periodic invoices to which all data related to items and customers are linked.

#### **GENERAL ACCOUNTING**

Registration of all accounting processes to complete and secure tax and "civil" compliance. The functions linked to **memorandum book** are fully **automatic** and VAT-compliant. Among those there are: automatic management of compensations, protocols, different registers, "multicurrency", "temporary" or "ex-budget" movements, **payments** on open batches, trial balances, **statements of accounts** and **reminders**, **prepayments** and **accrued income**, **withholding tax** and **welfare deduction** (paying-in slips are printed out and payments to recipients are certified), **enasarco**, **export plafond**, data conversion for **customerssuppliers** lists, etc.

#### **CASH MANAGEMENT**

Monitoring of **bill books** and operations linked to **cash movements**: **advice of payment** to suppliers, notice **of expiry**, **reminder** letters to customers, cash order or collection order, **unpaid** products or services, calculation of **default interest**, bill of exchange, automatic **reconciliation** of **bank** movements through **CBI**, etc.





#### **FINANCIAL** management

The company's **cash flow** is regularly checked and monitored in order to manage cash management in the best possible way. In particular, if costs and benefits "**before-accounts**" (*purchase or sale orders, transportation documents*, etc.) and **temporary** memorandum book (*scheduled loans, leasing, insurance, wages, tax,* etc.) are used, cash flow can be **simulated** for cash and **for each bank account** (*ordinary current account, credit line under reserve,* etc.).Net availability (credit-balance) can be highlighted and monitored as well as **risk exposure** for the single customer.

#### ASSETS

Monitoring and management of all **depreciable goods and assets** (material and immaterial), and a particular focus on their **location** and **lifecycle** (*purchase, increase, revaluation, total or partial alienation,* etc.). Amortization can be **simulated**, **fiscal** and "**civil**" **book value** can be Calculated as well as **maintenance costs** and assets too, etc.

#### Other tax compliance

All tax compliance procedures are carried out: WEEE (*Waste Electrical and Electronic Equipment*), CON AI (*National Packaging Consortium*), Black List – customers/suppliers list; integrated management of withholding tax; connection to tax proceedings of II Sole 24 Ore Adempimenti 24: VAT return (annual VAT return, VAT return, received declarations of intent), Form 770, Tax Return Form 24, Certifications for Compensations (for Form 770), European Budget, On-line PAYROLL processing of II Sole 24 Ore, etc.





### MANAGEMENT MONITORING

Nowadays companies face markets and economic contingencies which change very rapidly and continuously. In order to take the right steps in such a dynamic environment, companies must master advanced control instruments: not only analytical accounts which calculate in real time profit margin for products, orders, divisions, etc. but also Business Intelligence, Advanced Statistics and Data Mining which allow the managerial and administrative staff to take the best decisions for the company.



#### **BUDGET and BALANCE SHEET ANALYSIS**

Comparison between **Forecast budget** data and **final** balance data (**general accounting**); budget **reclassification**, **budget** management for **orders**, **cost centers** or **business areas**, and following comparison with the final data highlighted in analytical accounts.

### ANALYTICAL ACCOUNTS and COST ACCOUNTING

Detailed **allocation** of costs and revenues according to destination and pursuing 2 main goals: **bookkeeping per order** (which arises **analytical budgets** for **areas**, **agents**, **items**, etc., and **profit margin** is calculated) and **bookkeeping per cost centre** (out of which arise the costs for each division and the **costs for each work** are calculated – gross cost per hour of both staff and plants). Bookkeeping per **business area** (or **division**) **budgets** are generated per branch, production line, business areas etc. can be generated while "**full-cost**" analysis derives from sharing direct and indirect costs by means of customizable "analytical drivers".

#### **CALCULATION OF PROFIT MARGIN (orders)**

Simplified and easy-to-understand functions help to calculate **profit margin** for each single order, invoice or customer.





#### **MULTI-DIVISIONAL** Accounting

Automatic allocation of costs and revenues for the various **divisions** and "**business lines**" also defined as "budget centre". Each of them is associated with one or more "**cost centres**" and "**revenue centres**" such as **branches**, **product lines**, market **areas**, **geographic areas**, etc. All query functions have appropriate filters, the use of which allows to extract and work only on some specific elements: bills, invoices, bookkeeping cards, bills of exchange, cash, payments, trial balance, etc. The same connections and functions are valid in the elaboration of analytical budgets and cost accounting.

### Business Intelligence and Advanced Statistics

**Information** is automatically extracted and elaborated to monitor and lead the company; **break-even-point**, **diagrams** and **graphics** are generated and help the analysis and interpretation of this important information. Out of the results of these elaborations the managerial and administrative staff can take the best decisions for the various company's areas.

#### **DATA MINING**

The technology Analysis Services SQL2008 can be used in order to generate "measures" and "dimensions" on the CUBI OLAP (*on-line analytical processing*), performing a great analysis of relevant amounts of data. The analysis of objects with advanced and interactive functions allows to "schedule" and send the statistical analysis both to internal and external operators (agents, technicians, branches).





### INTERCOMPANY, Foreign Branches, Communications

A quick and appropriate communication, both within the production sale/chain and the outside world, has become an essential asset for companies. The company computer system must also be accessible to people operating in foreign countries with different foreign languages.

These goals can be reached thanks to the integration of all brand new technologies (VOI P, Mail, EDI, XML) into the ERP system. All business processes are in fact available to all external operators: branches, distributors, sellers, technicians, consultants, customers and suppliers.



#### **MULTI-LANGUAGE**

All companies which own foreign branches or wish to communicate with foreign operators in their local language can use a unique data structure and a unique business management system. Menus, descriptions, messages, comments and on-line help of all functions are automatically displayed in the language of the operator who enters the system (Italian, English, Spanish, German, French...).

#### **VOIP Desk (IP Telephony)**

In addition to the functions of a highly developed branch exchange, integration with VOIP software allows to reduce telephony costs, because it exploits the **Internet** to make **phone calls** and connects all **branches** as if they were direct inward dials. Furthermore, this system automatically generates statistics on the company's telephone traffic and reduces maintenance costs, since internal telephone network is not used anymore.

Integration with the management information system allows to

immediately display data and information concerning the caller;

perform **better** as far as service **quality** is concerned, since **waiting times are reduced** and the search for **the most suitable interlocutor** is automatic;

- display different information about the caller depending on who is receiving the call (for example, the administrative area is interested at statement of account and bill book, the after sale at the products in maintenance, agents and sale managers at orders and offers, the purchase office at suppliers' deliveries, etc.);
- open marketing or maintenance activities on the ERP system, which may depend on who is calling, traceability of the callings and "to do list" for each user.





#### FAX and E-MAIL Interface

Print previews of all documents are displayed. Documents can be sent via **.PDF** format, **e-mail**, **fax** (automatic connection to fax machine) or **XML** (*see*) at the same time.

#### **Mail Collector**

The flow of incoming e-mails is collected within the "value stream". ERP system, and in particular the CRM functions, is integrated with the mail server (Outlook or Notes) by means of a "parsing" that makes use of "interpretative heuristics" of texts in relation to data pertaining customers, names, prospects, branches, offers, orders, etc. This integration allows to register each message received from whatever customer account to whatever internal account, and vice versa. Registration and classification of e-mails allows to generate an information database which has become essential within all business processes: requests for business and technical information, requests for sales and technical modifications, new delivery dates, amount, etc. happen to be sent more often than ever per e-mail.

#### Production and Sales Chain (XML)

**EDI** (Electronic Data Interchange) automatic **transmission** and **receipt**, with "**XML**" technology, of all types of **documents** within the **production and sales chain**: *orders, bills, invoices, accounting processes, customers, suppliers, carriers, banks, alternative addresses*, etc.

#### XML Import

data are imported from other computer systems and directly loaded in SAM

#### **XML** Generator

data are transmitted from SAM to other computer systems



# **10** area

### SECURITY and R&D

The computer system represents brain and heart of all business activities and processes. As consequence any improper use has to discouraged through the use of tools and function which guarantee a complete control and a safe access to operations.

Personalized functions can be developed, improving thus process efficiency and performance, allowing the system to adapt to future changes and preserve the related investment.

#### PURCHASE, WAREHOUSE WORK FLOW and COMMON DATA C.R.M. MARKETINGandSERVICES PURCHASE, WAREHOUSE and LOGISTICS SALES SALES QUALITY INTERCOMPANY, FOREIGN BRANCHES, COMMUNICATIONS ADMINISTRATIVE and FINANCIALMANAGEMENT MANAGEMENT MANAGEMENT

#### **Authorization and Privacy Monitoring**

The system administrator can define single **users** or **groups** of users and decide which ones have access to which functions, either choosing *"full-control"* or *"read-only"* access.

This system respects **Privacy** law in its integrity.

#### **Security System**

It allows the system administrator to define the **restrictions** for each user or group of users even on the **single fields** of each display or **tool bar**: each field can be "modified", "read-only", "compulsorily filled in" or with "access denied" (the display of some information can thus be inhibited). To act on the tool bar of each window, for example, denies the chance to launch some given print or search activities.

Furthermore, this module allows to manage **documents approval** on *several levels*.

#### **RGT (Report Generator Tool)**

The system is provided with more than **900 standard print formats** (documents, printouts, reports) but each company may have its own specific and personal needs.

**Report Generation Tool (RGT)**, exploiting a **graphic environment**, allows to modify the existing formats and to generate new reports or documents' layouts.





#### **SDK (Software Development Kit)**

**Programs and vertical applications** can be **developed** and be perfectly integrated with the existing database structures, exploiting their "business logic" and keeping data coherence and integrity.

SDK can be used to **export** or **include** the several **functions** of the system (*articles, sales documents, bills of lading, invoices,* etc.) into external applications, to use these functions **from whatever program or environment** supporting **DLL** callings **without taking care of the internal programming procedures**.

Benefit: only the part of the code concerning the customization shall be written, without taking care of the update of the standard functions, which automatically takes place in the event of a new product release.









Centro Software was founded in 1988. Its first and main effort was to develop a specific software solution for the business management of **Italian** companies. Nowadays, Centro Software develops **2nd generation ERP Systems**, which successfully compete with worldwide players.

SAM ERP2 best joins all organizational methods of the major Italian business experiences. Centro Software stays close to its several customers and supports them with **high quality services**:

- planning of technological systems (hardware, software, network, ...),
- installation and conversion from previous systems,
- staff training,
- web-assistance (via Internet, telephone or conference call),
- development of special software,
- update and maintenance,
- regular systems check-up and monitoring.

Centro Software ERP System contributes to the success of more than 2400 Italian and European companies with worldwide branches.

These companies, which have an overall turnover of 11 billion euro on the Italian GDP, operate in the main market sectors: food, chemical/cosmetic/ pharmaceutical, medical device, mechanics, automotive, machinery, plant engineering/ robotics, power/electronics, commerce and services.

Several of these "excellent" enterprises are seen as an example for those who operate in the same market sectors, given both the completeness of the applied software solutions and the reached efficiency and competitiveness levels.







### THE PERFECTION'S EMOTION



Tel +39 051 813324 - Fax +39 051 813330 info@centrosoftware.com - www.centrosoftware.com