

IFS ApplicationsTM for Supply Chain Management



INDUSTRIAL & FINANCIAL SYSTEMS **IFS**

IFS Applications[™] for Supply Chain Management

– top speed through the supply chain

In the complex supply chain between the “most distant” supplier and the final producer, delays and lack of information are the major threats. Although IT is generally regarded by suppliers as the most important means of acquiring a competitive edge, the right tools are needed to ensure efficient support.

IFS Applications[™] for Supply Chain Management has been developed with supply and manufacturing chains in mind in order to minimize lead times, administration costs, and capital tied up in inventory.

Via automated routine processes and powerful functions for handling exceptions, IFS Applications[™] frees capacity for strategic management and development.



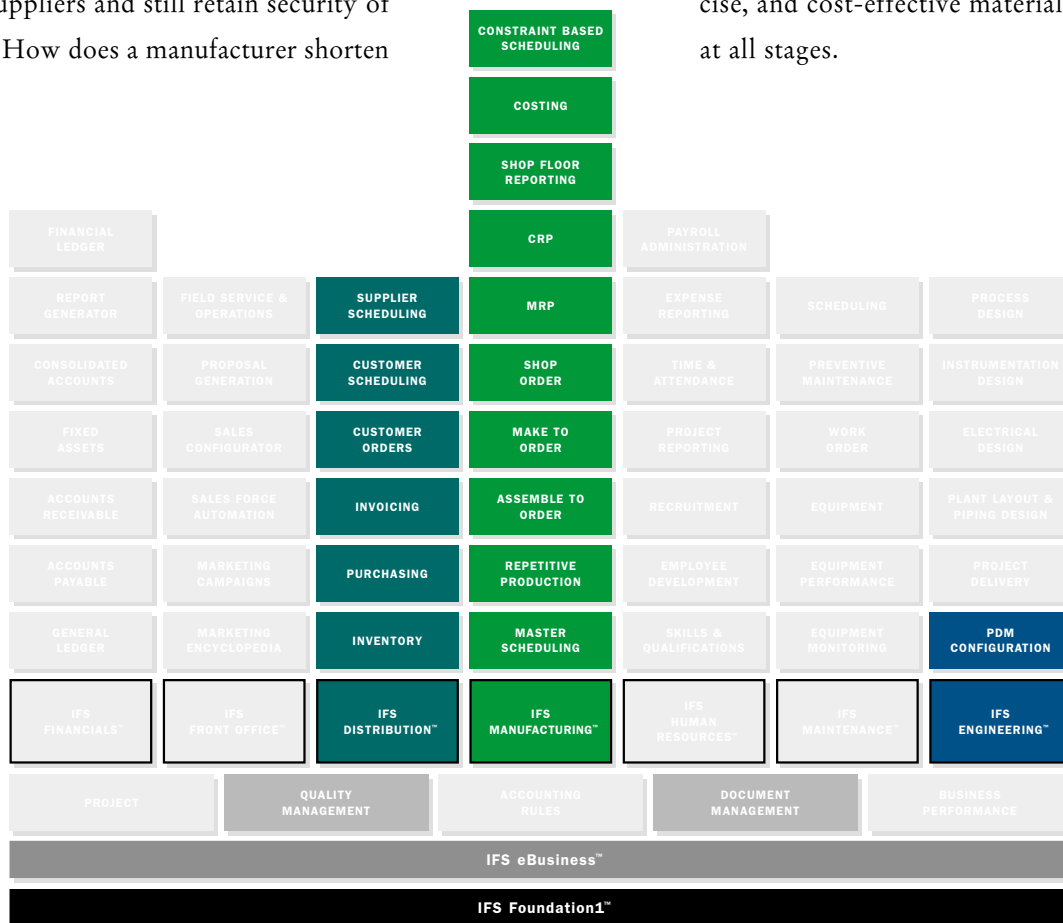
If you want streamlined information flows, IFS Applications™ for supply chain is your foremost tool.

Discerning end-users expect new, exciting models, more colors to choose from, a wider range of accessories, more attractive pricing, and speedier delivery.

For manufacturers, reduction is the perpetual goal, with shorter lead times and lower costs. But how does a systems supplier cut costs by five percent annually for five years while remaining profitable and meeting quality assurance requirements? How does a manufacturer halve the number of suppliers and still retain security of supply? How does a manufacturer shorten

development time for a new model so as to quickly satisfy new tastes? The lowest common denominator is optimal collaboration among competent suppliers at all stages of the process, based on a smooth flow of information.

IFS Applications™ manages the interaction between manufacturers, systems suppliers, and subcontractors in networks of varying complexity. The modules form a complete system that ensures swift, precise, and cost-effective material supplies at all stages.



IFS APPLICATIONS™ FOR SUPPLY CHAIN MANAGEMENT CONTAINS THE MODULES IN THE FIGURE ABOVE. NATURALLY, THE INFORMATION SYSTEM CAN BE SUPPLEMENTED WITH ADDITIONAL MODULES FROM IFS APPLICATIONS™ TO MAKE A COMPLETE ERP SYSTEM FOR ALL THE PROCESSES IN AN ENTERPRISE

IFS Applications™ – for efficient handling of delivery schedules

IFS Applications™ manages short-term and long-term delivery schedules. Delivery schedules are received from customers, processed automatically, and form the basis for the company's own materials requirement planning (MRP) and production planning. Using the efficient planning tools provided by IFS, material supplies and the use of production capacity are optimized in line with the model chosen. Simultaneously, parallel delivery schedules are compiled for the next stage in the supply chain. The fast and accurate information flow minimizes delays in the supply chain and, consequently, the need for unnecessarily large inventory reserves.

Tolerance checks – the route to stable business relations

The sophisticated control functions in the system allow

users to make continuous comparisons between incoming delivery schedules, according to prearranged agreements. Individual tolerance levels can be created per customer and article; when the levels are exceeded, the system automatically signals those who are responsible. Using IFS/Event Server™, these signals can be sent via e-mail or over the telephone.

In a similar manner, outgoing schedules to suppliers are also checked.

Continuous checks in the interface between the buyer and supplier increase delivery security, while reducing the risk of misunderstanding. The system also gathers and processes statistics on the relationship between buyer and supplier, providing valuable information about behaviors and trends. Taken together, these functions create the conditions for credibility and stability in business relations.

The screenshot displays a software window titled "Customer Schedule Agreement Part - 1000 CUST COMP 1". The window contains several input fields and tabs. At the top, there are fields for Agreement ID (1000), Customer ID (IFS RAC1), Name (IFS RAC1), and Status (Active). Below these are fields for Cust Part No (CUST COMP 1), Address ID (1), and two columns of LN fields. A "Note" checkbox is also present. The main area is divided into tabs: "Supply", "Tolerance Check Options", "*Tol Check Option", and "Miscellaneous". The "Tolerance Check Options" tab is selected, showing two sections: "*Cumulative" and "*Bucketed". The "*Cumulative" section has "Tol Under (%)" set to 50 and "Tol Over (%)" set to 100. The "*Bucketed" section has "Tol Template ID" and "Tol Template De" fields. Both sections have a "Checks" area with checkboxes for "Plan to Plan", "Call-Off to Plan" (checked), "Call-Off to Call-Off", and "Cum Call-Off to Plan".

Unlimited communication with EDI support and web browser

IFS Applications™ creates a direct information path between all those involved in a chain or network of suppliers by using electronic data interchange (EDI) but also via its internal standard, Message Handling System (MHS).

Currently, most suppliers are required to use EDI. As a member of the Organization for Data Exchange and Tele Transmission in Europe (ODETTE), IFS participates continuously in the development of specific applications of EDI – a guarantee of suitably adapted, future-proof communication on terms decided by our customers. IFS EDI includes conversion capabilities, a communications module and pre-set messages for manufacturers such as Ericsson, Nokia, Electrolux, Volvo, Scania, etc. according to EDIFACT and ODETTE standards.

The internal standard, MHS, has been developed to enable cost-effective information exchange between IFS systems, both between our own offices worldwide and between suppliers at various points in the supply chain. In an increasingly global market, IFS Applications™ is fully multicurrency, multilingual and Euro compliant.

Several functions in IFS Applications™ are also available via a standard web browser, which can be used, for example, to minimize paperwork and increase security when communicating with suppliers that do not use EDI. With the appropriate authorization, suppliers themselves can use the Internet to

monitor their delivery schedules, and consignment suppliers can examine inventory balances at their customers' sites.

Toward a common goal with shared resources

The new structures that have emerged within contemporary industry also stimulate closer collaboration between customer and supplier in the product development process. Interaction presupposes well-developed support for product data management (PDM) structures, matched by a thorough document management system and a simple, standard user interface, e.g. a web browser. IFS Applications™ has all the functionality required and is fully prepared for communication with external CAD/CAM, and calculation and estimation tools.



Are you a link in the supply chain? If so, IFS Applications™ is what you need.

Suppliers shape their own processes based on the demands from their surroundings. Irrespective of what the structure looks like, IFS Applications™ is flexible enough to provide the right support and adaptability when conditions change rapidly.

Long-term customer relationships are based on demonstrably high productivity and the ability to live up to the customers' stringent delivery and quality requirements. The strength of IFS Applications™ resides in its ability to manage large order volumes with a minimum of manual input. Information flows for incoming and outgoing delivery schedules are totally integrated with other processes, a requirement for providing a swift and accurate response to customer demands.

Automatic handling of incoming supplier schedules

Customer Schedules

Customer delivery schedules are received automatically via EDI but can, of course, be registered manually. The schedules are based on contracts per article between the customer and the supplier. All delivery schedules are checked against the actual situation at the customer site to avoid such problems

as duplicate ordering of goods that have already been delivered but which have not been received by the customer. For instance, checks can be made against the customer's most recently received delivery note number or against the latest delivery note number and accumulated quantities.

Major variations in supplier schedules are a classic problem that is usually resolved by resorting to inventory reserves, which can tie up a considerable amount of capital. The tolerance checks in IFS Applications™ effectively manage material and production resource requirements by quickly detecting variances in supplier schedules. This function makes it possible to compare schedules with schedules, schedules with call-offs, and even call-offs with call-offs, with different tolerance limits for different time horizons.

When the delivery schedules have been approved, they can be released and form the basis for purchasing, production scheduling, and shop orders. In an effort to fine-tune the supply chain, it is becoming increasingly common to replace traditional short-term delivery schedules or call-off with electronic Kanban messages. In combination with an internal Kanban solution, enabled by IFS Applications™, operations can be rationalized even further.



Advanced scheduling engine optimizes operations



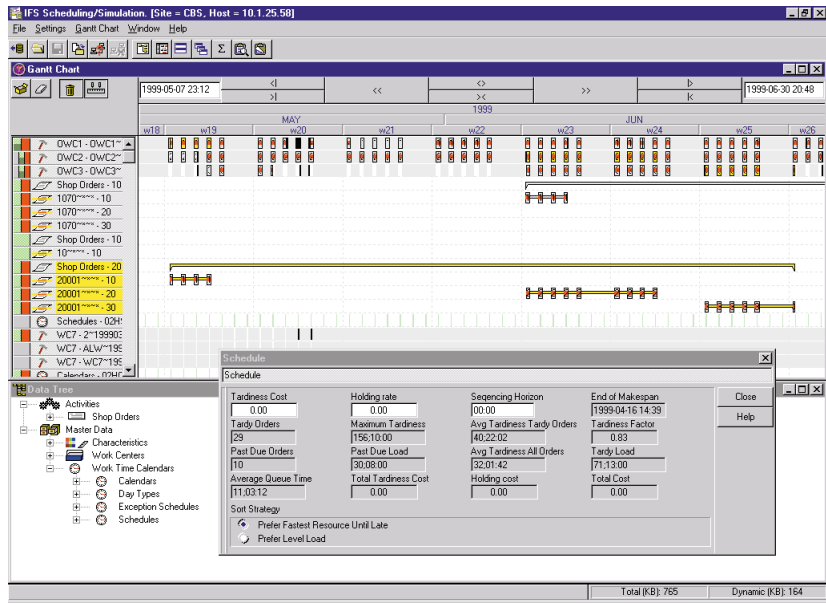
The continuous registration of incoming delivery schedules is entered directly as control

parameters for a company's operations. Material requirements are checked off against ongoing production and current inventory balance. Via established product structures and a large number of planning rules, IFS/MRP™ enables material flows to be optimized. Forecasts are created at selected levels and are supported by scenario management and statistical models.

Direct transfer of information to the next level of the supply chain is becoming increasingly common and requires fast planning engines. The enhanced IFS/ MRP™ has high-performance memory-resident planning, which means that requirements can be updated several times a day if necessary. This functionality can also be used to simulate MRP outcomes by

moving the parameter values into a separate environment where requirements are calculated and presented as proposals. If the proposals are accepted, they can be returned to the real planning environment to generate requisition information.

IFS Applications™ also offers broad support for other planning methods, e.g. the constraint-based scheduler (CBS), which is suitable for companies with batch-oriented manufacturing, where it is important to optimize production sequences. Planning is done graphically with “drag-and-drop” Gantt charts.



Outgoing delivery schedules are fully automated



Supplier Schedules, Receipt

Based on production planning, delivery schedules are generated for the next supplier in the chain. IFS Applications™ controls the entire information flow based on statistical information about quantities purchased, supplier precision, and quality levels. With high-quality information and effective exception management, supplier schedules can be fine-tuned so that inventory levels can be minimized.

Supplier schedules are handled the same way as customer schedules. Tolerance checks for outgoing schedules call attention to major deviations from established agreements. On approval, the delivery schedules can be released to the supplier. The entire flow from registration to release is usually handled automatically, but each stage can also be controlled manually.

Effective support for repetitive and Kanban-controlled manufacturing



Production

IFS Applications™ optimizes production resources regardless of which production model is applied. The system offers an all-embracing planning tool encompassing materials and resources of all types, for example, equipment, manpower and materials handling space. The main flow is simple and easy to comprehend, and shop floor reporting contributes to quick and reliable reporting.

Repetitive production is an efficient means of reducing the number of transactions while simplifying and automating the production process. Administrative procedures and production planning are minimized without losing traceability. Final reporting is the only shop floor reporting required and results in automatic deduction of all components used. Repetitive production is particularly suited to companies where parts of the production are characterized by short throughput times, independent work teams, relatively even demand, and high volumes.

IFS also supports Kanban-controlled production at a variety of levels, from simple card-based Kanban to electronic Kanban with sophisticated shop floor reporting. Moreover, IFS supports make-to-order, traditional manufacturing, and make-to-assembly.

Secure order shipments with complete transport documentation



Order Shipment

Well-tuned production must be combined with equally well-managed order shipment. IFS Applications™ has capacity for very high delivery volumes with great precision. Prior to shipment, automatic labels are created for marking goods and for transport documentation. Text and barcodes are used for identification in order to facilitate automatic scanning. Notice of delivery is done via EDI. Since complete traceability of transactions is essential for quality assurance, information can be traced via article-, parcel-, lot-, serial-, or order number, time, or via financial transactions.

Smooth management of customer and supplier invoices

Invoice / Self billing

The invoice functionality handles both customer and supplier invoices. Customer invoices, produced as documents and as EDI messages, can be traced in their entirety with respect to vouchers and allocation. The invoicing function handles optional currencies, with automatic conversion to the accounting currency. Self-billing is a labor-saving function based on long-term business relationships with agreed prices. Each incoming delivery is given a reference number that is matched with a purchase order. As the current price is known, a delivery invoice is created automatically, using the reference number as the invoice number. In addition, the accounting required by the transaction is created automatically.

IFS Applications™ strengthens the support processes

Thus far we have described how IFS Applications™ contributes to rationalizing the company's core operations. IFS Applications™ also provides broad functionality for the various support processes in the enterprise, such as quality assurance and costing.

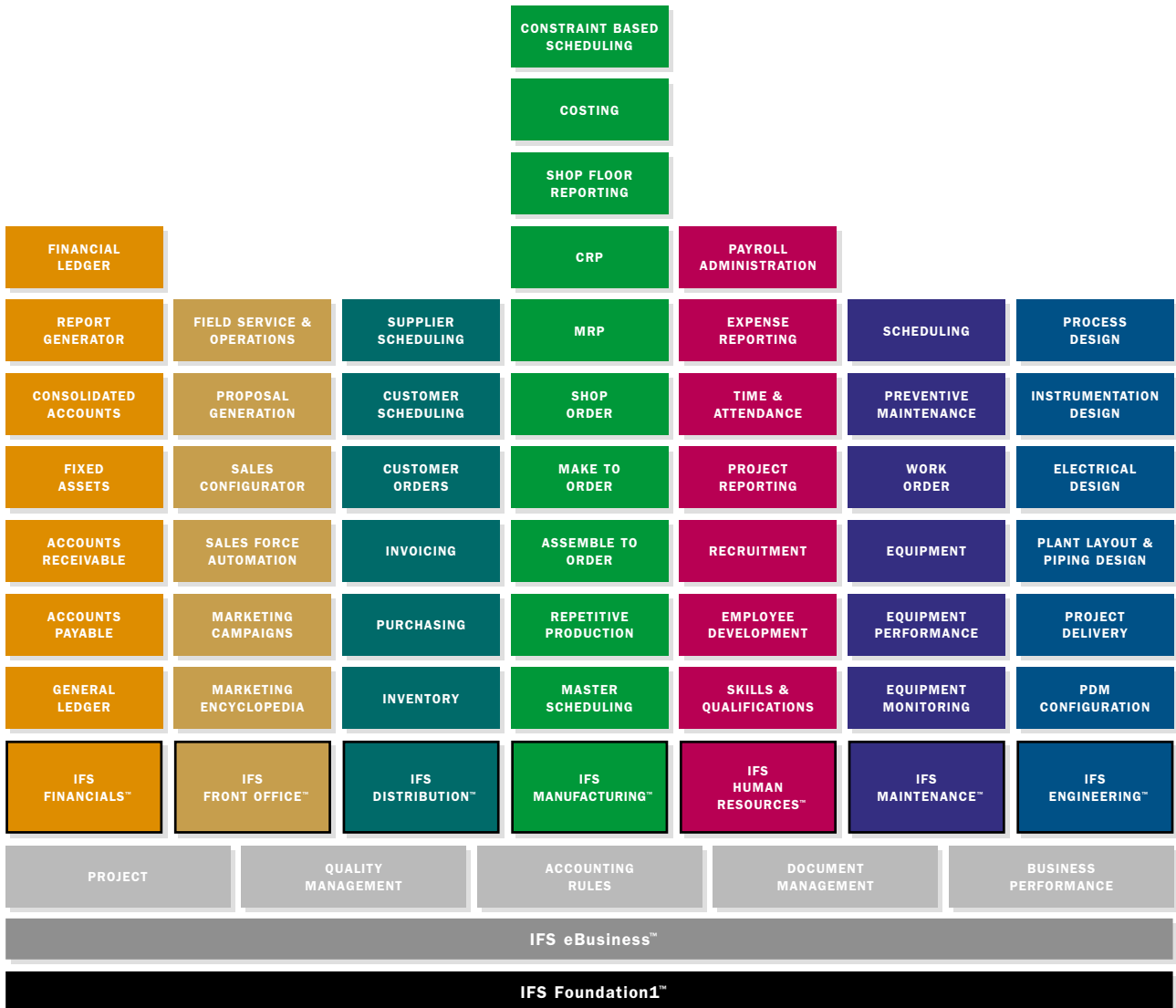
The aim of the QS-9000 quality system, launched in 1994 by Ford, Chrysler, and General Motors, was to achieve continuous improvements, prevent faults, and reduce variations and losses in the supply chain. IFS Applications™ is well equipped to support the core areas in QS-9000 such as Advanced Product

Quality Planning and Control Plan (APQP) and Failure Mode and Effects Analysis (FMEA).

Parallel with ongoing quality development, suppliers are being constantly pressured to cut costs. By administering scheduled, ongoing, and completed actions, IFS Applications™ supports the work of continuous cost reduction, so-called kaizen costing.



IFS Applications™



**IFS APPLICATIONS™ IS BUILT FROM COMPONENTS THAT WORK INDEPENDENTLY OF ONE ANOTHER
THEY CAN BE COMBINED QUICKLY AND EASILY, AND MODIFIED AS YOUR NEEDS CHANGE**

IFS Applications™ – support for the entire company

Analysts, suppliers and users of ERP systems are all agreed: the future belongs to component-based systems. Because with component technology, implementations succeed, time schedules and budgets are adhered to, and the systems perform as they are supposed to. But above all, they can be extended, modified and changed as required.

IFS was first to launch component-based systems, and still leads in this area of development. IFS Applications 2000™ is the third generation of systems based on component technology. With each generation, the ability to quickly and easily build and change solutions has been refined.

Today, everything is based on business process templates that can be adjusted to create unique business processes supported by the system via configurable components. Only the components that are necessary are installed – in order to minimize complexity. The component concept means that no functional evolution becomes more expensive or time-consuming than necessary, the system can be implemented incrementally, and can be configured or changed to support any new requirements that might arise.

The right information should be presented to the right person at the right time. IFS Applications™ provides excellent opportunities for follow-up, feedback and control at all levels of your organization. This is because all the subsystems have access to the same information and use common rules that have been created for your solution.

Freedom to develop

There is no need to think about the development environment and system architecture when using IFS Applications™. Nevertheless, this is where the foundation is laid for the creation of a superior solution for your business.

The technological platform is chosen to simplify the development of new applications or customer modifications and to reduce the time from specification to finished function. This platform also represents a form of guaranteed value for your investment, since the best generally accepted techniques available on the market are used to develop IFS Applications™.

Freedom to work at any location

Because of the modern architecture in IFS Applications™, communication with cellular networks and the system works very well. This offers complete freedom to retrieve, process, and transmit information with the help of portable computers or directly via the network. The Internet offers additional options. IFS Applications™ can be accessed from any computer linked to the Internet, with only a web browser installed. With WAP (Wireless Application Protocol) technology, users can use Internet functions via mobile telephones.

Freedom to conduct e-business

IFS eBusiness™ links customers, suppliers, and partners directly to the backbone of your ERP system via the Internet. Fast, automated information flows throughout

the entire value-added chain present new opportunities to develop closer cooperation, raise the level of service, increase customer loyalty, and reach out to new markets. IFS Applications 2000™ contains complete e-business solutions for Internet companies whose web site is the only interface with the customer. Established enterprises can open new sales channels to their customers quickly and easily without having to abandon their current systems. Component technology has become more important than ever in today's rapidly changing world since it allows the best features of new technology to be applied more quickly.

Analysis tools for decision-makers at all levels

IFS Business Performance™ is a data warehouse capability that allows authorized decision-makers at any level in your organization to monitor and overview your entire operation. Authorized users are guaranteed direct access to business information regardless of where it is stored. By reducing complexity, your company obtains powerful decision support for a large number of users, which enables very flexible analysis of the information that is stored in the database. The information is conveniently presented in standard tools, such as Microsoft Excel®.

Quality and control throughout the entire life cycle

IFS Free Enterprise™ is a set of methods and products that give you quality and control throughout the life cycle of IFS Applications™, and provide functionality for

knowledge transfer and for managing change processes. It allows users the freedom to upgrade and develop their systems without disrupting their operations.

IFS Free Enterprise™ includes:

- IFS Business Modeler™, used for quickly defining and recording standard processes, industry-specific processes, and your customer-specific processes.
- IFS Applications Implementation Methodology™ (IFS AIM™) is a time-proven implementation methodology used when new systems are installed or existing systems extended. IFS AIM™ ensures fast, systematic, and reliable installation of your IFS solution.
- IFS Quality and Distribution System™ (IFS QDS™) is a unique quality assurance system where all installations are documented – both standard components and customer-specific modifications and integrations.
- IFS Link™ enables easy registration and follow-up of fault reports, thereby contributing to quality assurance.

Important factors for a successful project

IFS works constantly to improve the tools and methods for its installations, but the most important factor in the success of any project is the expertise and commitment of people. IFS is involved from the beginning in order to create the best complete solution. Sharing its experience and recognizing the special requirements of different sectors, IFS strives to maintain lifelong relations with its customers and be available whenever needed.

This is IFS

Industrial & Financial Systems, IFS AB, delivers and supplies IFS Applications™ to medium- and large-sized companies. IFS Applications™ is a complete ERP system for all of a company's business processes, covering manufacturing, distribution, finance, maintenance, human resources, design, and front office.

IFS' business concept is to increase the freedom of action and competitiveness of companies by providing a flexible standardized system based on leading technologies. IFS Applications™ is one of the first ERP systems in the world to have been developed entirely using object technology.

IFS Applications™ is based on a thoroughly applied component and module concept, and can therefore be tailored to meet the needs of every customer. IFS' ERP systems are Y2K compliant and can handle the Euro.

IFS is the world's fastest growing ERP vendor. Its products are sold in 34 countries in Europe, the Middle East, Asia, the USA, and South America. IFS has 3,000 employees and 3,000 customers.

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