

IFS APPLICATIONS™ FOR

ENERGY & UTILITIES



IFS DELIVERS

TRUE BUSINESS AGILITY

The most successful enterprises know how to adapt to, and embrace, what's next in their market. IFS Applications™, IFS Field Service Management™, IFS Enterprise Operational Intelligence™ and IFS Maintainix® help make our customers' businesses so agile they can view what's next not as a threat to be managed but an opportunity to be seized.

IFS SOLUTIONS:

- Are built on industry standards, so you aren't locked into a proprietary technology
- Have a modular architecture so you can quickly add, adapt, scale and integrate as you need to
- Are so user-friendly you will be using the rich functionality in no time
- Offer you greater visibility into your business to spot what's next early
- Give you greater knowledge of how your business needs to adapt
- Provide greater flexibility to take the necessary action to make change happen



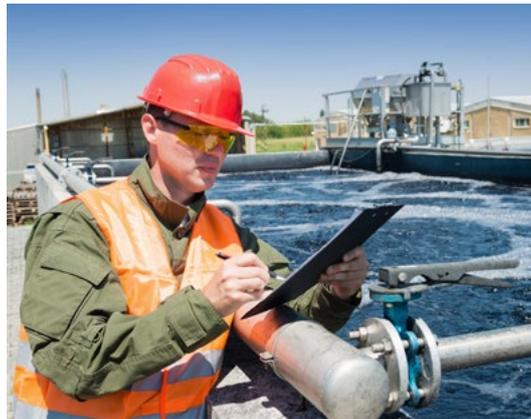
A HERITAGE OF SOLUTIONS

IFS is the only broad business software vendor whose origins lie in the development of an enterprise asset management (EAM) solution for utilities.

The energy and utilities industries remain a primary IFS segment, with customers worldwide, including some of the world's largest power generation projects, national grid corporations, nuclear power plants, and multinational energy generation, transmission and distribution companies.

Extremely scalable, the solutions from IFS provide the same reliable support to companies with many thousands of users as it does to plants having fewer than a dozen users.

Besides innovative EAM and enterprise resource planning software for regulated and deregulated energy and utility markets, we deliver project, supply chain and service functionality. The result is a complete asset lifecycle management (ALM) solution for all your requirements, from initial facilities engineering and construction through daily operations and maintenance, all the way to decommissioning. We also support all core enterprise functions for managing finance, inventory and human resources, including multi-site, multi-currency, and multi-language environments.



UTILITIES DELIVER THE STUFF OF LIFE

Delivering electrical power and other basic utilities to the world's growing population is one of the 21st century's most compelling issues. The Macondo Deep Horizon catastrophe in the Gulf of Mexico and the Fukushima nuclear accidents in Japan are only the most dramatic examples of the risks involved in large-scale capital-assets development and operations.

The challenges facing the energy and utilities industries include satisfying some of the most basic of human needs. Growing demand and supply uncertainty can lead to volatile costs and pricing. Also of grave concern are security, safety and environmental issues, as well as taxation and regulatory efforts that all too often are erratic and hard to predict.

The business model for energy & utilities continues to evolve from a pure asset-driven approach, to a more customer-centric and ultimately a lifestyle provider model. The core basis is forecast, planning, construction, operation and maintenance of infrastructure, with service delivery at a reasonable rate of return.

In many markets, power generators are under pressure from owners to improve return on investment. In others, regulators keep a watchful eye and pressure for reduced pricing.

Other risks follow from a rapidly aging infrastructure and workforce. Yet the financial incentive to make needed infrastructure and human resource investments is often unclear. Managers do more with less, squeezing better performance, longer life and higher efficiencies from existing assets. For new assets, increasingly complex technologies—and the breakup of vertically integrated enterprises—make owner-operators and engineering, procurement and construction (EPC) companies increasingly dependent on contractors and suppliers for goods and services. Hugely complex projects increase risk and possibilities of delay.

At the same time, advanced technologies are being applied to an installed, disparate base of legacy installations. Too often, significant elements of this installed base are no longer supported, insufficiently documented, or not easily integrated with. This makes information difficult to find, or once found, trust.

IFS helps you to deliver the right stuff, meeting customer needs in an era of growing demand and squeezed resources. We are ready to help you address these globalization and technology challenges.

AN INTEGRATED, CONTINUOUS PROCESS

To reduce risk and increase productivity, it's better to manage the entire utilities asset lifecycle as an integrated and continuous process—from up-front planning to plant obsolescence. But without a true integrated extended enterprise system you have no system of record for in-context data analysis. In this case, a serious barrier remains to efforts to increase productivity through better use of information technology.

IFS offers full enterprise-suite functionality—it's a one-stop shop—for companies in the energy and utilities markets, providing a single solution based on a common integrated platform with a well-defined strategy going forward. It also can complement corporate systems by supplying unmatched, comprehensive enterprise-asset management functionality.

From its inception, IFS's deep knowledge and experience of best practices in maintenance and facilities management were key factors in the development of IFS enterprise software.

Our asset lifecycle management approach brings those responsible for a plant's design and construction together with those who will operate and maintain it. It puts operations and maintenance on a common system that includes ties to real-time automation systems. It supports the various informational needs of a wide range of stakeholders. Document management brings structure and control to document-driven business processes.

BUSINESS PROCESSES



APPLICATION SOLUTIONS



The diagram illustrates the depth of functionality that makes IFS Applications such a powerful business tool. With the focus on solutions that address industry-specific issues you are able to increase competitiveness and raise quality standards while minimizing costs.

FOSTER COLLABORATION AMONG HIGHLY TRAINED INDIVIDUALS

IFS's enterprise software supports the total asset lifecycle, including for EPCs, for planning, engineering, construction and commissioning. Through its integrated ERP, asset, project, service and supply chain management functionality, all stakeholders play off "the same sheet of music" with a common set of consistent data.

ASSET DESIGN AND PLANNING FOR EPC SUPPORT

The capital-construction industry must address the tremendous expense of stove-piped systems for different project stages. Having all project data in one system during design, engineering and construction ensures owner-operators and EPCs work with current data. Transition to operations is smoother, with equipment data available from the start.

While design and modeling work is typically accomplished in niche products and BIM integration is becoming increasingly important, IFS's enterprise software serves as the system of record for asset design, planning, data management and engineering change management, furnishing stakeholders with consistent, accurate information regarding asset infrastructure. The result is improved collaboration, decision making and control of critical external suppliers. Construction projects are less risky and easier for owner-operators and EPCs to manage.

PROJECT MANAGEMENT

Project-based solutions deal with the increasing size and scale of capital construction, whether plant or network construction or revamps. Automated collaboration with important sub-contractors and suppliers leads to optimized resource use.

- Risk management improves via a "review, evaluation and action" process that identifies issues.
- In-built project budgeting and forecasting features allow companies to manage their strategic long-term asset investment scenarios, ensuring best use of available funding.
- Contract cost controls record work progress and contract baseline revisions while managing payment activities. User-defined project cost elements better fit needs.
- It's easy to integrate with systems such as Microsoft Project™ and Oracle Primavera™.

THE SUM IS GREATER THAN THE PARTS

Besides our capabilities for ERP and EAM, IFS has invested in the engineering support and project management functionality appropriate to development, operations and management of capital-intensive asset infrastructure. That's what asset-lifecycle management is all about.

IFS's product development is market-driven and based on the changing needs of the industry. The inherent flexibility in IFS's solutions, based on a robust technical platform, leaves its industry users ready to respond to market and technology changes that can't as yet be fully anticipated.

WORK AND ASSET MANAGEMENT

Better ways are needed to support collaboration among highly trained professionals, both internal and external:

- For a comprehensive business view, utilities need asset management integrated with a financial or enterprise system.
- With equipment-monitoring advances, predictive maintenance and reliability-centered maintenance (RCM) bring structure to programs and reduce cost. RCM establishes safe, minimum levels of maintenance, supports changes to operating centers and establishment of capital management regimens. RCM from IFS includes support for failure mode, effects and criticality analyses (FMECA) and task identification. Risk, cost and environmental concerns are balanced.
- Maintenance efforts are better directed and inventory control improves with tight integration between EAM and procurement.
- All asset types, including linears, must be able to be managed in one system, with seamless integration to GIS tools as needed for graphical visualization.
- Contract management ensures service providers fulfill terms and conditions, meet service level agreements and achieve committed cost savings.

SUPPLY CHAIN MANAGEMENT

IFS's enterprise software supports the different steps in the information supply chain that asset-intensive companies participate in during projects and revamps. Integrated supply chain management of procurements, inventory and vendors means better availability of goods and services associated with forecasts of planned and unplanned work.

Companies can benefit from multi-site agreements and common purchasing processes. Costs can be cut through reducing capital tied up in inventory. Securing the availability of spare parts optimizes the supply chain.

SERVICE MANAGEMENT

An increasing number of European and US utilities are restructuring service-related aspects of their business as separate entities. IFS was early in developing capabilities to manage service as an integral part of the utility enterprise, whether outsourced or in-house. Being able to determine service needs proactively and predictively is a significant competitive advantage. If you can also optimize planning and scheduling—and react and reschedule in real time—you can dramatically affect margins and growth.

You can meet these challenges with IFS Planning & Scheduling Optimization™ (PSO), a range of modules that can be implemented separately or integrated to form a powerful tool that gives you visibility, scheduling optimization and planning of mobile resources. At its core, IFS PSO also delivers dynamic scheduling that can be optimized by a number of criteria to increase profit, reduce cost and ensure service level agreement (SLA) compliance. A user-friendly interface makes it easier to capture information on-site via mobile devices and report it immediately to back office, thereby ensuring data accuracy and quality.

CONNECT YOUR OPERATIONAL DATA

Are you putting the vast amounts of data being generated by your assets to their best use? With IFS IoT Business Connector™, you minimize the risk of ending up with huge amounts of disparate, disconnected—and therefore underutilized—operational data.

IFS IoT Business Connector helps you bring your operational data together, analyze it, and provide relevant business insights you can act on. It's quick and easy to install and comes with connectivity to the Microsoft® Azure® and APIs to connect other third-party discovery solutions. With operational data transformed into business intelligence, you can increase the efficiency of business processes and decision making, and expand into new IoT-enabled business models. In other words, your enterprise becomes 'connected', giving greater visibility into all aspects of your operations.

IFS places a high priority on user interface and workflow improvements that make its applications accessible, highly usable and fun. By doing so we are addressing issues related to an aging workforce and a new generation of computer users. We have a worldwide network of offices and partners to ensure that support is always local. Installation, consulting and maintenance are offered via IFS offices or partners with long experience, both within the energy and utilities sector and with our solutions.