

IFS APPLICATIONS™ ENGINEERING, CONSTRUCTION AND INFRASTRUCTURE



IFS HELPS

PREPARE FOR WHAT'S NEXT

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 Maintenix™ 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

MANAGE THE FUTURE

– NOT THE PAST

Projected global growth approaching four percent suggests that the engineering, construction and infrastructure industry is in a healthy state, with predicted total value expected to be in the region of US\$ 10.3 trillion by 2020. However, to benefit from this growth you'll need to be prepared for the main challenges facing the industry in the near future—and turn them into opportunities.

THE INDUSTRY WILL BE TRANSFORMED IN THE NEXT DECADE

Over the past decade, material costs have risen by up to 30%. With increasing demand and uncertainty related to tariffs and international import rates, cost increases are unlikely to slow. In a similar vein, labor shortages due to an aging workforce and the perceived unattractiveness of the industry has caused hourly wages to outstrip inflation in many countries. This is impacting project budgets and timelines as well.

To meet these challenges and profit from them, construction companies are increasingly turning to digital technologies such as building information modeling (BIM), robotics, drones, laser scanning, artificial intelligence (AI), and modular construction and 3D printing. BIM is moving companies away from a traditional document-driven process to integrated data-driven processes and systems. The successful company in the future will be a construction, manufacturing and service hybrid business. The use of modular and offsite manufacturing is growing rapidly as construction sites become more like final assembly operations. These changes will drive project delivery efficiency and quality as well as improve health and safety and reduce project risk.

HEALTH, SAFETY, ENVIRONMENT AND SUSTAINABILITY

With its reputation for workplace incidents, the industry is facing growing scrutiny of the work environment. Yet it's not just a matter of implementing a series of HSE measures; they need to be accurately documented and you need to ensure that employees can easily access and understand them. Being able to do so will add to the attractiveness of the industry and may even help to redress the gender imbalance which is typical of the sector. Here, mobile safety apps are increasing in use.

Similarly, environmental sustainability will remain an important factor, with the onus on builders and developers to continue to 'think green' and be able to demonstrate this to their clients. Companies that do so successfully may even be able to add a 'green premium' to their pricing models.

BUILDING FOR SUCCESS, TODAY AND TOMORROW

Success in a changing industry like engineering, construction and infrastructure hinges on seeing the challenges in the offing and being prepared for them as they approach so that you have the flexibility to optimize every project. That is why IFS offers a comprehensive suite of business applications that are designed for—in some case even by—enterprises in the industry, with the added power of software from areas you might not even have considered; like project management, for greater total control of your business; or manufacturing, to streamline transition to modular construction; or financials, and project cost control, or asset and facilities management. The solution gives you real-time insights into all aspects of the asset lifecycle and the ability to measure and control your business.

IFS helps you manage the future, not the past.

TOTAL ASSET LIFECYCLE SUPPORT

— FROM DESIGN TO DISPOSAL

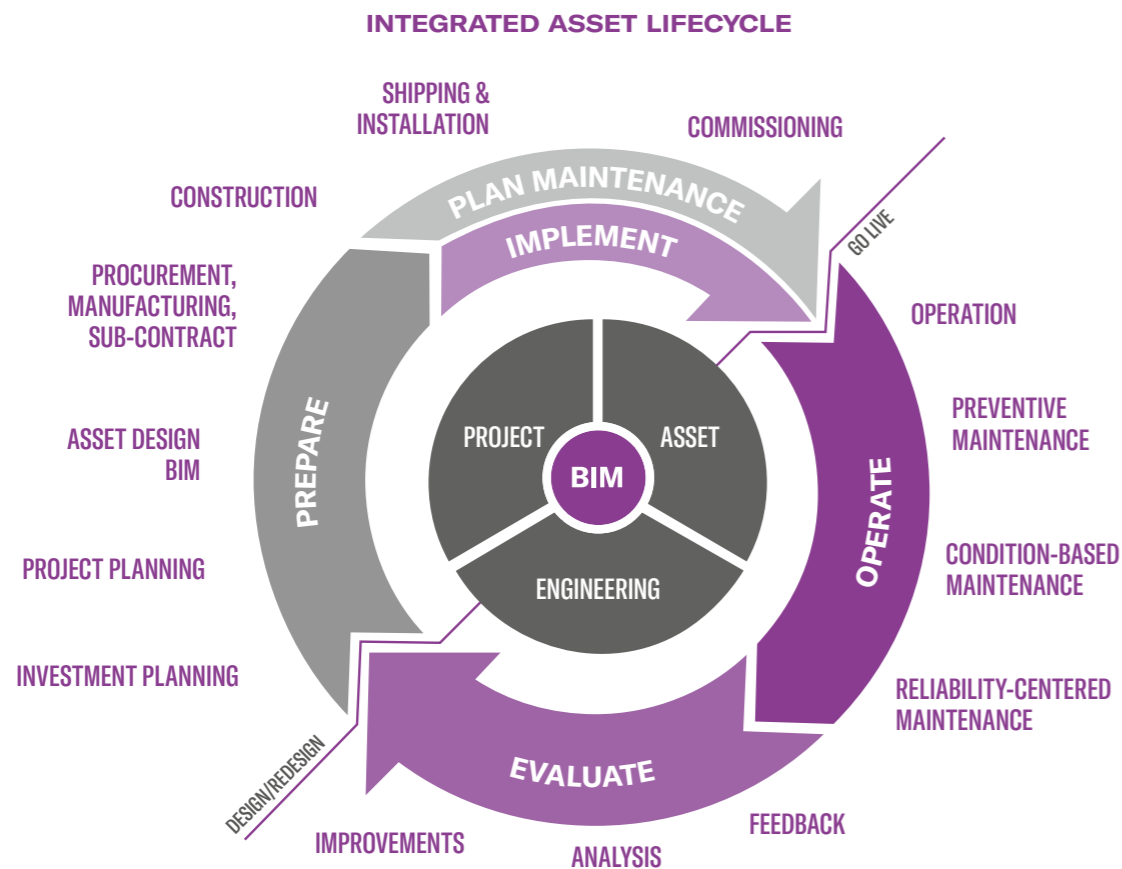
Whether your organization is involved in delivering projects to build, refurbish or dispose of assets or is involved in providing maintenance or facilities management services on assets, or all of these asset lifecycle stages, then IFS has an excellent solution.

THE INDUSTRY WILL BE TRANSFORMED IN THE NEXT DECADE

The IFS solution has a world-class project lifecycle and asset management solution—a combination rarely found in one integrated software solution. If you also have an offsite manufacturing facility, then IFS can provide a project-based manufacturing solution for this business unit as well.

All of the above main business processes are integrated with a common set of supporting modules including finance, human resources, document management, procurement, supply chain and sub-contract management, quality and health and safety, plant and equipment hire and rental.

IFS understands the importance of cost control through all stages of the asset's life. The trend in the industry is to move to a TOTEX model (Capex + Opex). IFS has one integrated solution that covers the management of capital projects, and the operations and maintenance of the asset. This makes the management of TOTEX very simple with one set of numbers. The world-class project cost control solution allows monthly project cost reviews to be managed in an integrated way without the need to use lots of Microsoft® Excel® spreadsheets. It supports both a work and cost breakdown structure model.



SPECIFICALLY DESIGNED FOR YOUR BUSINESS

The IFS solution provides a comprehensive set of integrated components to cover the complete contract lifecycle. You can also choose a specific set of components where some of the business applications are not from IFS. To be successful in the engineering, construction and infrastructure industry, you have to have functional strength in many areas. In particular, a strong project solution is essential to manage new build construction contracts and includes features

such as project cost control, planning and progress tracking, risk management and project accounting. In addition, a strong maintenance and facilities management solution is essential to manage longer term asset management contracts. With IFS you have this flexibility to manage all types of contracts within a single, common, integrated solution.

BUSINESS PROCESSES



APPLICATION SOLUTIONS

OPERATIONAL INTELLIGENCE				
Sales Contract Sub Contract Service Contract	Estimating CRM & Bid Management Bill of Quantities/Scope	CONTRACT MANAGEMENT	Contract Variations Revision Control Retentions	Payment Applications Valuations and Certification Work Instructions
General Ledger Accounts Payable	Accounts Receivable Cash Book & Forecasting	FINANCE	Fixed Assets Project Accounting	Consolidation Budget Management
PROJECT MANAGEMENT		ASSET & FACILITIES MANAGEMENT		
Project Planning MS Project Integration Primavera Integration Project Templates Estimating Resource Planning & Allocation		Time & Expenses Project Procurement Material Planning Progress & Earned Value Project Cost & Budget Control Work & Cost Breakdown Structures		Asset Definition & Configuration Preventive Maintenance Fault Reporting & Analysis Call Center Service Contracts SLAs
Materials Management & Spares Work Order Management Resource Planning & Allocation Property Management Planning and Scheduling Optimization Time & Expenses				
Human Resources, Time & Attendance & Payroll		Document Management	Collaboration	Risk Management
Design & BIM	Procurement & Supply Chain	Asset Hire & Rental	Manufacturing & Assembly	Quality Management

- Contract management has been designed to handle complex contracts where client variations and **application for payments** are often the norm. This also covers complex sub-contracting activity.
- The **risk management solution** extends beyond the bidding phase and, being fully integrated, allows the risk consequences to be fully evaluated and corrective actions to be swiftly implemented.
- The world-class **asset and service management** components allow our clients to manage their own internal assets and equipment as well as managing and servicing their clients' assets..
- The **document management** capability allows all project documentation to be managed, including revision control, document deliverables and approval workflow.
- The **supply chain** solutions provide comprehensive support for procurement, manufacturing and inventory control.
- The **engineering** components provide tools to manage the project equipment list and include an asset design component that is best placed to integrate the design objects from a 3D model required to implement a BIM strategy. The component provides a common asset information repository to allow the asset information to be used in all stages of an asset's life.

EVERYTHING IS UNDER CONTROL

IFS's experience in the industry and its policy of development in collaboration with its customers is reflected in the comprehensive range of capabilities provided by IFS business software. Every aspect of the solution has been carefully considered and designed to provide the user with total control—in any situation.

PROJECT PLANNING NEEDS TO DRIVE WORKFLOW

To prevent it from becoming isolated from the main business system, the project plan is an integral part of the IFS solution. It drives work-to lists to engineering, procurement, manufacturing, installation and construction so they are all working to the master project plan. Full two-way integration is also available with leading tools such as Primavera and Microsoft Project®.

MODULAR AND OFFSITE MANUFACTURING

Construction integrated manufacturing is a rapidly growing trend in the industry. IFS not only supports traditional construction and facilities management requirements, but if you also have an offsite or modular manufacturing facility, then IFS also provides a fully integrated world-class engineer-to-order manufacturing solution. So there is no need to buy a separate solution to run this part of your business.

VARIATION CONTROL

Managing project change has always been one of the biggest challenges. IFS software has many integrated features to manage project change, including change requests, document management, project base-lining, project budgeting and forecasting revisions, contract change management and audit trails, and approval workflow. By being able to clearly identify scope

changes and ensure that they are managed with a proper integrated workflow, you can make a huge difference to a project's profitability.

COLLABORATION AND SUB-CONTRACTING

Increasingly, projects are delivered by organizations working together to deliver the total solution. Joint venture, sub-contracting and outsourcing activity is increasing, which is putting a strain on many companies trying to keep control of their projects.

IFS software offers powerful functionality to meet these needs. The sub-contract management component allows complex sub-contracts to be managed. Web collaboration portals are also available. All of these advanced features are fully integrated with the overall project management solution.

SITE AND ASSET MANAGEMENT

Site work has traditionally been managed using paper-based systems or non-integrated tools, but the need to have fast and accurate feedback from the construction site is crucial to keep a project successfully on track. IFS software has a number of features to help control the site execution work, including web or mobile options for time and status recording, sub-contract work instructions and work order management. The solution also offers a world-class asset and service management solution where the contract is to manage the assets.

READY FOR WHAT'S NEXT?

Additional challenges are awaiting the industry—and some are already making their presence felt.

New players are entering the sector. The world's biggest factory for modular homes is in the UK—and is owned and run by a finance and insurance group, not a construction company. As construction meets manufacturing, expect to see more of this.

Additionally, globalization is increasing the foreign content of construction products and has already been of major benefit—Spain's construction sector did remarkably well in the recent economic upheavals mainly due to less exposure to risk as a result of partnering globally.

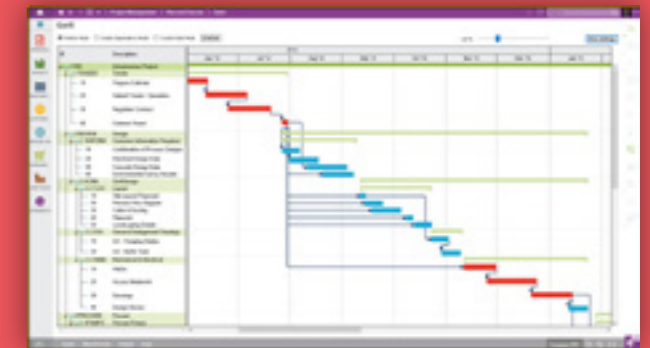
New technology, such as 3D printing, means costs for both material and long transports are decreasing substantially. With technologies like these, partnerships will focus more on global competence exchange rather than long-haul transports to increase profits.

Then there's digital transformation. Despite the increasing availability of digital solutions for improving transparency and accountability, increasing automation and promoting standardization, the industry has to overcome the challenge of rolling out technology across multiple sites, subsectors, and stakeholders. The answer is an agile, comprehensive platform that enables interoperability coupled with a change in the perception of digital solutions among key stakeholders.

Wherever you are in the engineering, construction and infrastructure industry, IFS provides business software that covers all your needs—to meet today's challenges and whatever the future may hold.



IFS Lobby™ will provide you with visibility of key metrics in a single view, the right data at the right time and increased operational agility.



The project plan is fully integrated and it drives coordinated work-to lists through all functions of the business so they are all working to the same master project plan. Full two-way integration is also available with leading project planning tools.

ENHANCE USABILITY AND AGILITY WITH IFS LOBBY™

Focusing on roles and processes, IFS Lobby enables a high degree of configurability. Users can create new lobby pages in a matter of hours to accommodate the unique nature of business roles in your company and increase operational agility, resulting in higher user engagement and productivity because employees get the right data at the right time. **IFS Lobby:**

- Provides at-a-glance real-time visibility
- Centralizes data from multiple screens, queries and data sources in a single view
- Provides drill-down to specific functional screens and data right from the lobby
- Increases visibility of key metrics required to avoid surprises and to better plan day-to-day activities
- Combines preconfigured content for many common roles with the ability to easily tailor content
- Enables users to access lobby pages from any device at any time to stay close to the business even when they are not at the office

ABOUT IFS

IFS develops and delivers enterprise software for customers around the world who manufacture and distribute goods, build and maintain assets, and manage service-focused operations. The industry expertise of our people and solutions, together with a commitment to delivering value to every one of our customers, has made IFS a recognized leader and the most recommended supplier in our sector. Our team of 3,700 employees and growing ecosystem of partners support more than 10,000 customers around the world challenge the status-quo and realize their competitive advantage.

Learn more about how our enterprise software solutions can help your business today at [IFSworld.com](https://www.ifs-world.com)

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