

IFS Solutions For Construction & Engineering



IFS Helps You Challenge The Status Quo

The most successful General Contractors know how to manage the disruptive industry they operate in. With competition intensifying and skill shortages putting more strain on the industry than ever before, having a business system architecture that can provide the agility and flexibility needed has never been more critical. IFS has a long history working with General Contractors and developing (software solutions) built for the industry which are built to enable best practice through core construction processes, industry lobbies and innovation embedded.

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 the challenges early
- Give you greater knowledge of how your business needs to adapt
- Provide greater flexibility to take the necessary action to make change happen
- Can be deployed in the cloud or on-premise with no change in functionality
- Are designed to enable customer success and deliver positive moments of service



Manage The Future—Not The Past

The market for general contractors has been growing consistently for nearly a decade and most see this trend continuing to intensify. In 2001 total revenues from the global market for general contractors was \$106 Billion USD and in 2017 this increased by over 400% to \$468 Billion USD* With contractors continuing to deliver bigger and more complex projects revenue is expected to continue increasing, however the profit margins for these projects is still languishing that of other industries.

Build For Success In A Disrupted Market

With contractors continually under immense pressure the challenges of tighter margins, global skills shortages and new industry entrants are all ramping up the pressure on specialty contractors to increase productivity and to improve project delivery performance, on time every time.

Safety And Environmental Aspects

Owners also are presenting new pressures on general contractors. Customers' and contractors' focus on safety and environmental aspects has affected the industry as a whole. Contractors are forced to deal with, on a daily basis, a multitude of different safety and environmental regulations/ standards.

Alternative Project Delivery

The trend toward alternative project delivery is continuing to accelerate and most subcontractors are happy to gain earlier input into the design process applying delivery systems as design-build and IPD.



Offsite/Modular Construction

New competitors from outside the industry are entering the market. A main reason for this is the need for the industry to transition to a constructionintegrated manufacturing model, often referred to as offsite or modular construction.

Building For Success, Today And Tomorrow

To be successful in an everchanging industry, enterprises should make enough profit to fund proactive growth, expand into new markets, apply new business models and invest in disruptive technologies to make them more competitive.

Emphasis On Service And Maintenance

Many contractors are putting more emphasis on its service and maintenance activities because even in a down construction market, people will always need to service their equipment.

* <https://www.enr.com/articles/47844-enr-2019-top-600-specialty-contractors-how-long-will-the-boom-last>

Total Asset Lifecycle Support –From Design To Disposal

Whether your organization is involved in delivering projects as a sub or prime contractor, IFS enables you to build, refurbish or dispose of assets and deliver maintenance or facilities management contracts and project warranties. The IFS solution has a world-class project lifecycle and asset management solution—a combination rarely found in one integrated software solution.

From Engineer To Design, Build, Operate And Maintain

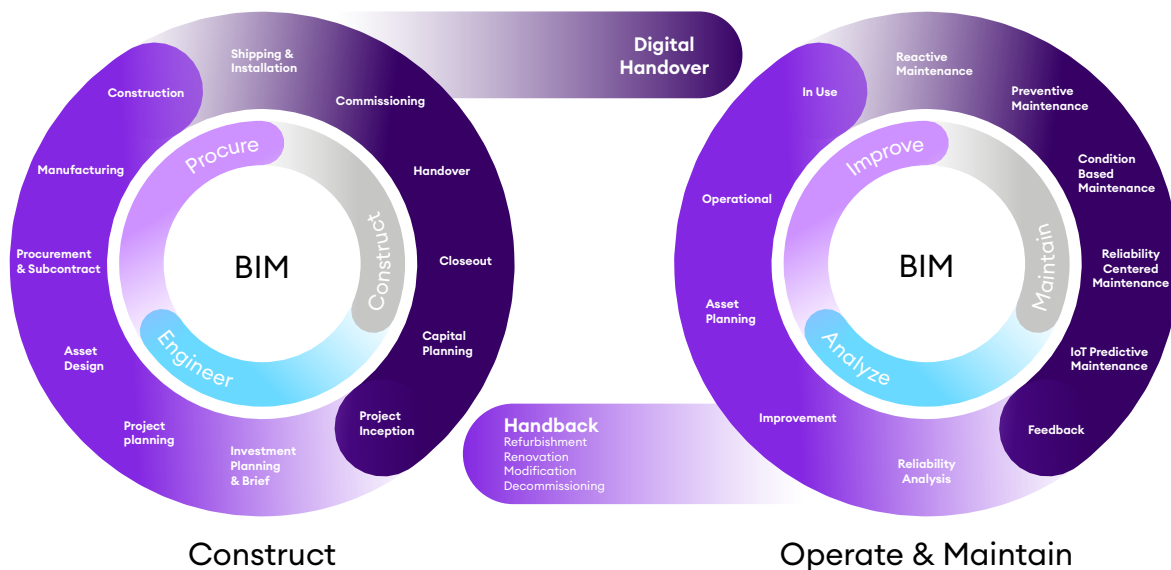
The IFS solution is project-driven, aligning data, schedules and capabilities to keep everyone on time, informed and empowered. The project itself is the engine, ensuring high-level visibility and transparency throughout. The solution provides full

flexibility for all projects, whatever their size or complexity, and templates can be made for every type of project. The work breakdown structure (WBS) includes all activities that will be conducted across disciplines, with documentation, purchasing and fabrication in one common structure. The correlation between when documentation must be completed and when purchasing and fabrication can begin is fully visible and transparent. Project managers can easily track progress, costs and revenues related to the different activities.

Build And Maintain

When talking about buildings, the term "facilities management" is generally what is used today. The contract is about making the facility available and is typically awarded to a specialty contractor to build and maintain the asset. As part of the contract, they may also have scope to rebuild, refurbish or build new assets. IFS offers specialty contractors an industry solution for more effective processes and increased service revenues. Integrating project management, material management/logistics, maintenance planning, work/service order management, resource allocation, document management, financial and performance measurement, as well as human resource management, the IFS solution is all you ever need to effectively manage your service and operations.

Integrated Project & Lifecycle Management



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 as a specialty contractor, 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.

CONSTRUCTION – INFRASTRUCTURE – INDUSTRIAL SERVICES

Industry requirements

ENGINEERING AND CONSTRUCTION	ENGINEERING CONSULTANCY	SERVICE, FACILITIES AND PROPERTY MANAGEMENT	EQUIPMENT MAINTENANCE AND RENTAL	MODULAR & PREFAB MANUFACTURING
Bid to Contract	Bid to Contract	Bid to Service Contract	Maintenance	Bid to Contract
Planning and Pre Construction	Planning & Project Management	Contract Management	Contract Management	Planning and Design
Procurement and Material Supply	Resource Management	Asset Data Management	Asset Data Management	Procurement and Material Supply
Construction and Execution	Procurement	Call Centre	Procurement and Material Supply	Manufacturing Execution
Contract Management	Time and Expenses	Work Management	Asset Rental / Hire Execution	Shipping & Installation
Periodic Project Review	Project Billing	Purchasing and Materials	Asset Management	Periodic Project Review
SUPPORTING PROCESSES				
Health, Safety, Environment & Quality (HSEQ)	Financial Management	Human Capital Management	Marketing & Business Development	Document 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

Modular and offsite construction, also often referred to as prefabrication or modular and offsite assembly, 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 construction facility, then IFS also provides a fully integrated world-class engineer-to-order manufacturing solution. You can manage shop-based and site-based work in the same contiguous solution to maximize productivity and efficiency while minimizing risk.

Contract change orders

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 subcontracting

Increasingly, projects are delivered by organizations working together to deliver the total solution. Joint venture, subcontracting 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.

Get proper control and governance

Modern contractors need the structure, risk mitigation and visibility that come from enterprise business software that is optimized for specialty contractors. Yet many of the software packages on the market fail to adequately address the complex project financial control needs of construction companies to ensure the profitable completion of projects and by extension, the success or failure of the business.

In IFS solutions, the project plan is integrated with financial controls, so you can see when you are going to spend money as well as when milestones tied to applications for payment will be achieved. This enables you to forecast the end position of the project at any time and take corrective action if necessary long before you get around to collecting actuals against the general ledger. IFS gives you ready access to real-time metrics like estimate-to-complete (ETC) and estimate-at-completion (EAC).

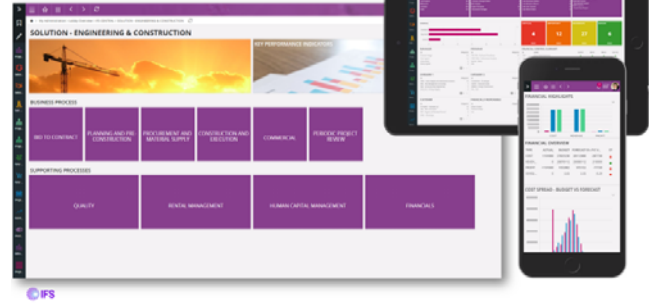
Build for the future

For specialty contractors to build for the future, they must anticipate future market demands, and change business processes and solution capabilities.

The first step is getting control of your business and ensuring you have accurate, real-time information about how your projects are performing. Please note this is easier said than done and might require changing your processes and business systems to a more integrated solution.

Once this foundation is in place, your business will be in position to transform quickly to support new business models, such as offsite, modular construction or service management. This foundation will also allow your business to integrate the latest digital asset lifecycle technologies into your business processes, like BIM and IoT.

IFS Cloud For Engineering, Construction & Infrastructure



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.

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 companies around the world who manufacture and distribute goods, build and maintain assets, and manage service-focused operations. Within our single platform, our industry specific products are innately connected to a single data model and use embedded digital innovation so that our customers can be their best when it really matters to their customers—at the Moment of Service.

The industry expertise of our people and of our growing ecosystem, together with a commitment to deliver value at every single step, has made IFS a recognized leader and the most recommended supplier in our sector. Our team of 4,000 employees every day live our values of agility, trustworthiness and collaboration in how we support our 10,000+ customers.

Learn more about how our enterprise software solutions can help your business today at ifs.com.

#MomentOfService