

The Ultimate Buyers Guide to Construction Software

The ins and outs of evaluating which construction software is right for you.



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Introduction

The construction industry has undergone the same rapid digitization in recent years as so many sectors of the economy. This has meant an explosion of software designed for tracking productivity, bidding jobs, estimating project costs and building information modeling—among many others.

With this growth come questions. When is the best time to adopt software? What kind of software fulfills your needs? How big of an investment should you make? How can you best integrate your new software into your company's operations?

In this guide, we will walk you through the different functions of the industry that can benefit from using software. We will also give you some ideas about what to look for when approaching software vendors, strategies for deploying the software across your company and tips for training your team to extract its maximum benefit.



What you need and why you need it

The first step in purchasing construction software is determining why you will be using it. Maybe you're looking to make project scheduling easier. Maybe you want to track productivity in order to find areas to increase efficiency. Perhaps you just need a better way to track your budget.

Let's look at some of the functions of software made for the construction industry and useful features to look for.

Bidding/Estimating

No matter its size, every construction company works with bids and estimates for jobs. Whether you are a general contractor bidding an owner or a subcontractor trying to get a piece of the action, you can use software tools to help get the job done.¹ Many of these tools can even integrate well with other programs already in place that are necessary for project completion.



When selecting bidding and estimating software, look for two features in particular:

- **An up-to-date estimating database:** Such databases use the Internet to track the ever-changing costs of building materials. That information allows contractors and subcontractors to bid for jobs more accurately, saving the stress of budget overruns later.
- **Ease of data export:** This allows you to export your bid information into project management and accounting software. You can then more easily monitor how closely your expenditures track with the budget set by your successful project bid.



Scheduling

In 2016, McKinsey & Company put out a report showing that scheduling and budget overruns plague major construction projects.² Any number of factors can cause problems, from scope creep to change orders to bad weather, but the McKinsey report placed a fair share of the blame on the industry's slow adoption of digital technology. Specifically, the report noted that "project planning between the office and the field remains uncoordinated and is often done on paper."

Scheduling software can mitigate such problems.³ With a more precise plan of execution, project managers can sequence work and coordinate better with contractors and subcontractors. Better scheduling means better budgeting and reduced labor costs. And such software can be shared with all the stakeholders, which means transparency for building owners and better communication for everyone.

When choosing scheduling software consider cost, mobile access, ease of use and security—especially if you're storing proprietary information in the cloud. Also, check how easily you can integrate it with your other project management software. Well-chosen scheduling software should streamline the entire construction process.

Accounting and Administrative

Accounting software can address a wide variety of needs. A small construction company might be looking to reduce take-off times with a program that can estimate item costs from project blueprints. Larger companies might need accounting software that helps with a range of functions. Some software on the market can integrate with programs your company might already use for areas such as project and customer management.⁴

Obviously, accounting software also helps with payroll management. But for more robust oversight of employee data, human resource management suites and time tracking software are available.⁵ Some programs cover aspects such as workflow, task lists and employee schedules.⁶



Construction Productivity Software

Imagine the increases in efficiency and productivity when everyone on a jobsite and in the office has digital access to a full set of updated construction documents.

That is the goal of construction productivity software: it aims to centralize the vast amount of paper generated by a project in one digital archive accessible from anywhere. Any blueprints, scope changes, requests for information, photos, schedule requests and data can be distributed immediately and accessed via an iPad or any other mobile device by every stakeholder, from office executives to junior subcontractors.

Because such software is designed for use by everyone on a jobsite, not just specialized individuals, any program must be simple to navigate and have a solid base of technical support available at all times from the vendor. It should also be highly scalable, so it can be rolled out on a wide range of projects, contractors and subcontractors.

Project Management Software

Construction project management calls for specific skills and disciplines, especially ensuring projects are completed within a set budget and according to schedule.

Project management software allows a manager to track every detail of a job from the field. It should automate time-sucking tasks such as tracking employees' hours, but it should also integrate easily with accounting software, allowing them to track expenditures and keep within budgets.

Messaging and Communications

Security and ease of use on mobile devices are especially important with communications tools, whether you want a chat-room tool like Slack or a platform for video calls with Skype, Zoom, or Google Hangouts. Assuming you will be doing a lot of remote communication from jobsites, connectivity and communication is especially important.





Cloud Storage

Cloud-storage software options range from the trusted standbys such as Box and Dropbox to heavyweights such as Google Drive and smaller vendors such as SpiderOak.⁷ Three major factors to consider are cost, security and accessibility.

When considering cost, check how much free storage space you get before you have to start paying. Dropbox gives only 2GB of free space, but for a small monthly fee it does give each personal account unlimited space. Google Drive gives more free space initially but does not offer unlimited space, even for paid individual accounts.

As for security, the less well-known services such as SpiderOak and pCloud (which specializes in large media files) put much more of a premium on keeping your data secure—which is not to say Google or Microsoft are insecure, just that they don't emphasize it as part of a sales pitch.

Finally, accessibility. How easy is it to reach into the cloud to pull down the data you have stored there? Microsoft's OneDrive, for example, is already integrated into Windows, so it would take little training for most computer users. Google is not well integrated and requires downloading a desktop app to use drag-and-drop functionality. So the choice here might be dictated partly by how much training you want to give employees, or how important it is to integrate access to the cloud in their workflow.

Safety

Construction can be a dangerous industry, but its safety record is improving. This is partly the result of digital tools that can track safety violations and collect data that companies and government agencies can use to implement procedures and regulations to make jobsites safer.⁸

In fact, fulfilling that duty is one function of safety software geared specifically towards the construction industry. Other functions include documenting incidents and safety measures on your jobsite, tracking your company's compliance with local and federal regulations and training and updating and completing forms. Good safety software also will run on mobile devices, so that incidents can be documented immediately and compliance measures can be checked and updated on the spot.

The keys for good safety software are accessibility from mobile devices and its function as a central repository for updated information and forms that managers need to feel confident they are complying with all regulations.



Fleet Management

An important and challenging part of construction is keeping vehicles running and in good order. After all, one cement truck breaking down can throw off a schedule, costing a company time and labor costs—to say nothing of the cost of getting the truck up and running.

One feature to look for in fleet management software (FMS) is parts cross-referencing. This allows managers to find suppliers that can quickly deliver new parts, which lowers a fleet's average downtime. FMS can also track maintenance schedules and downtime, showing exactly when a vehicle will not be available. FMS should also be able to produce custom reports that assist managers to find strategies to optimize their fleet's usage.

To help with reports, good FMS should also have real-time performance tracking that collects accurate data for these reports while helping gauge the fleet's performance, giving managers and customers a sense of what is (or isn't) working.

Building Information Modeling

Building Information Modeling (BIM) is one of the fastest-growing sectors of construction software. In fact, it is almost mandatory for firms looking to stay ahead of the competition.⁹

BIM software can manage the life cycle of your entire project, from the design phase up to the handover to the client. It allows for 2D and 3D design and tracks both physical and functional characteristics of a building, along with the surrounding environment and physical infrastructure. It can spot problems in design before the building process even begins. It can also highlight efficiencies that allow you to change or accelerate building schedules. In doing so, BIM can help reduce project costs.

Good BIM software will also promote collaboration between users and different teams, such as architects and engineers. Some programs can also function as project management software for smaller projects, including homebuilding and remodeling.





Selecting a vendor

So you've determined your company's software needs. Now it's time to find a vendor whose product most closely matches it.

Keep a few features in mind as you evaluate those products.



Ease of Use

Adopting digital technology might make construction companies nimbler and more capable of responding quickly to customer needs. But this benefit goes away if the technology is difficult for users to master. Additionally, there are going to be companies that still prefer to perform tasks the way they always have. They may be resistant to having to master something new. The simpler the software interface and the easier it is to run on various platforms, the better.



Security

You might need software to help you bid on jobs against competitors who would love to know what you are up to. What security guarantees do vendors offer with their products? Will your company's proprietary data be stored in the cloud or on your own local network?





Pilot Programs

You are making a big investment in this software, so take it for a test run on one or more projects. Vendors will have pilot programs that allow a potential client to use their software on a limited basis and then scale up to the rest of the company later.

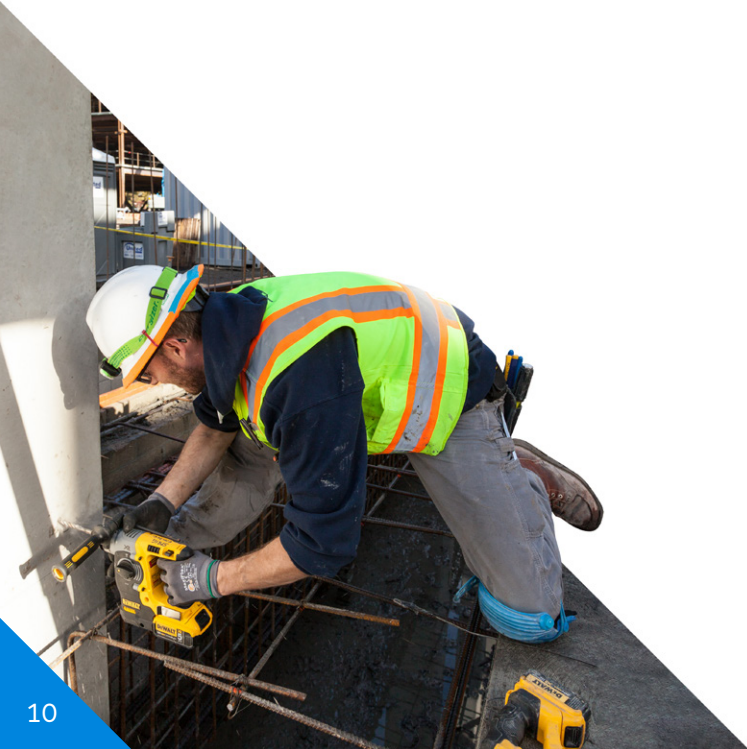


Formal RFP Process

The process of choosing, purchasing and integrating this software into your operations is complex. So you want to get it right with a vendor. This is where the request for proposal, or RFP, comes in.

An RFP is a solicitation for a bid from a vendor to provide the product and services you need.¹⁰ It is particularly necessary if you are trying to choose from among several vendors. The vendors will give you not just a quote on the cost of the software, but a thorough overview of what they are offering and a timeline for completing the project. Their proposal should include an overview of all the steps necessary to do achieve their promised goals.

The process helps you uncover strengths and weaknesses among different vendors and may reveal some functions you had not thought of before. It even takes some of the onus off you right up front. Once you have established your needs and asked vendors to bid on the project, the pressure is on them to explain why you need their product and how it will help your company.





Involving your team will bring success

The company-wide adoption of any software will succeed or fail on the shoulders of the employees using it. If employees find that this shiny new program has a confusing interface or does not allow them to be more efficient or fulfill any number of other needs, then your work in bringing it online will all be a waste - along with the money you were entrusted to spend on it.

You can avoid this unhappy ending with a few simple steps.¹¹

1

Get buy-in from users and senior staff early on. You can accomplish this by surveying daily users and administrators about how they do their jobs and what they would need or want to see in this new software. Employees who feel that they have a stake in the process will be much more willing to try something new, rather than feeling they are having it forced upon them.

2

Be realistic about your timetable for getting the new program up and running. It will take time to select a vendor. You may want to train a small group of users and let them use the software for a while, getting valuable feedback and insight into possible improvements, before rolling it out across the company. Make sure everyone understands that even getting this group up to speed and then monitoring their usage to see how it improves performance will take some time.

3

Find some champions. Ideally, this is a direct result of step two. Giving a small group within the company the time and space to learn the new software and attend planning sessions and training can make them fans who will be enthusiastic about teaching and training others.

4

When you are ready to unveil the software to the entire company, make sure you provide robust training for everyone. Have a good knowledge base online that users can access when they have questions and make sure everyone knows where it is.



Don't skip or skimp on any of these steps.¹² The rollout is a success only if everyone knows how to use the tool.





Conclusion

The digital revolution has made the construction companies that adapt to it much nimbler and more efficient. Software has made its way into every corner of the industry. For organizations that have embraced it, the old days of paper documents overflowing from a trailer on a worksite are a distant memory.

Selecting the proper software to fulfill all these functions can still confuse and overwhelm. But any company can take steps when upgrading digital tools to ensure smooth rollouts while holding down costs. It can be a long process, but a very rewarding one.



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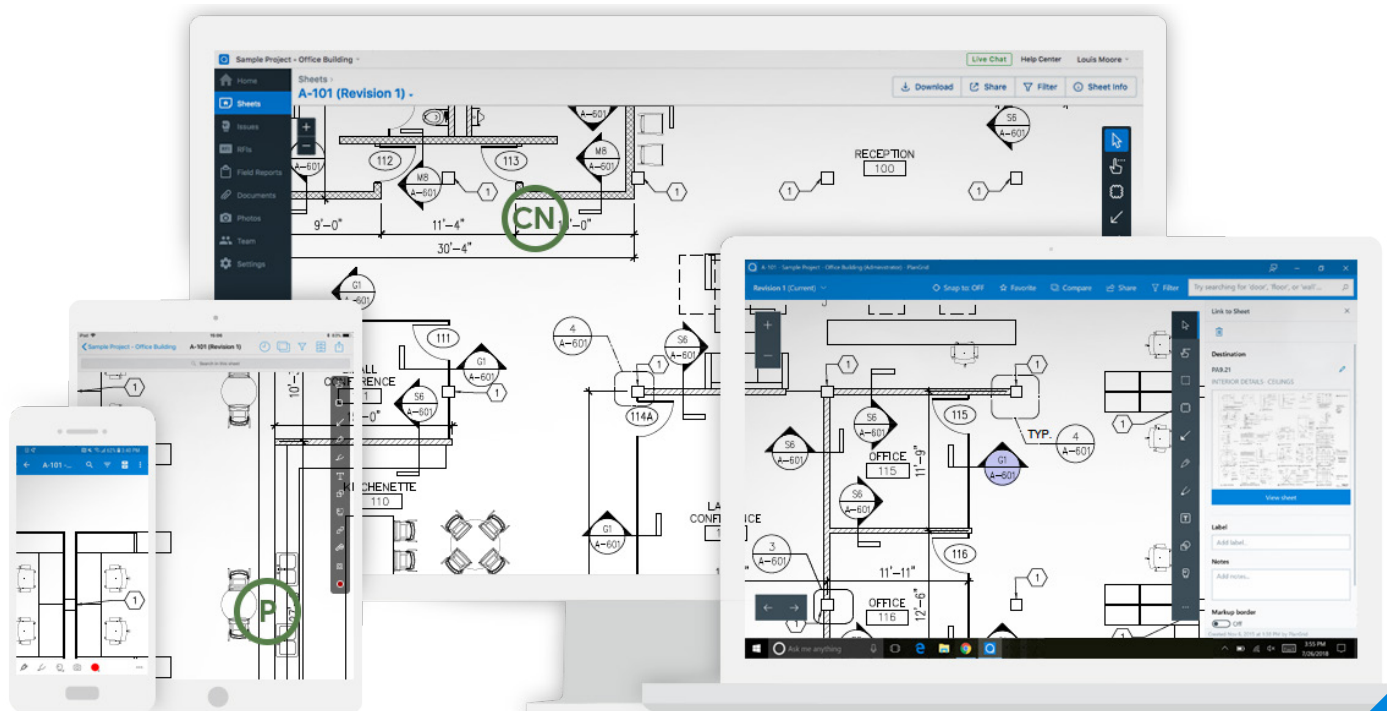
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PlanGrid's Construction Productivity Software is the easiest and most cost-effective way to get substantial return on your investment in construction mobile apps. By using PlanGrid you will:

- **Complete projects faster:** 90% of project costs occur in the field and not in the office. This includes wasted time and project delays. With PlanGrid, you can reduce wasteful trips to the trailer and time delays, while eliminating costly rework. PlanGrid also allows for faster collaboration and communication.
- **Reduce costs:** PlanGrid allows you to optimize productivity in the field, which eliminates time waste that causes project overruns. By completing projects early or on time with PlanGrid, contractors will benefit from reduced costs.
- **Win more bids:** The best way to bid more competitively is not just to track costs so you can provide more accurate estimates — it's to improve your overall productivity. PlanGrid's Construction Productivity Software will allow you to increase productivity so you can reduce costs and win more bids.



PlanGrid is construction productivity software used on more than 1 million projects across 90 countries. Our software helps teams collaborate more efficiently with access to an intelligent record set on any device.





Used on more than 1,000,000 projects around the world, PlanGrid is the first construction productivity software that allows contractors and owners in commercial, heavy civil, and other industries to collaborate, collect, and share project information from any desktop or mobile device through the entire project lifecycle.

PlanGrid increases project efficiency by streamlining document management, providing construction teams with easy access to all project information from any device, and enabling seamless collaboration within teams.

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