Quickstart Guide

How to Transition to a Paperless Construction Company
Your Blueprint to Digital Transformation

No matter which solution you choose, going digital will help reduce risk, increase ROI, and boost productivity.
About PlanGrid
Used on more than 500,000 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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**Introduction**

Construction productivity is lagging behind most industries. According to the US Department of Commerce, productivity has decreased in the construction industry since the 1960s, while other industries surge ahead.

Blueprints exemplify this problem. Although more than two decades have passed since office workers began sending email instead of paper letters, many construction companies still rely on their version of snail mail today: paper blueprints.

This isn’t surprising given that *more than 32 percent of employees and 28 percent of managers in the construction industry are still reluctant to adopt technology*. And just like office workers who continue to rely on snail mail for business communication, builders who continue to rely on paper will fall further and further behind.

Despite this reluctance, construction professionals can experience substantial benefits from adopting technology. In this guide, we’ll highlight the key benefits for construction professionals who adopt technology as well as a 5-step plan to help you transition to a paperless construction company.

The cause of this productivity lag? Technology—or a lack of it. In contrast to other industries, construction still relies heavily on paper to manage its essential processes and deliverables, such as blueprints, design drawings, procurement and supply chain orders, equipment logs, daily process reports, and punch lists. Lack of digitization limits and delays information sharing, so owners and contractors are often working from outdated documents. An inconsistent record set is a primary cause of rework, which negatively impacts productivity and the bottom line.
The Benefits of Going Paperless

Imagine being able to update an entire team’s sheets in real-time without having to wait for a new set to be printed, delivered, and distributed. Going paperless isn’t just about saving the environment—it’s about realizing a dramatic increase in productivity for business.

By making the switch to a digital construction solution, construction professionals will be able to:

**Save Time**
By going paperless, construction professionals will no longer have to waste time trudging back and forth from the jobsite to the trailer or waiting for revisions to get distributed. Time is the biggest waste on a construction project and a primary cause of project delays that result in cost overruns. Indeed, after reviewing numerous studies conducted over a 30-year period documenting levels of wasted time in construction activity, one meta-analysis concluded that an average of 49.6 percent of time in construction is devoted to wasteful activity.

But digital tools, such as construction productivity software, can reduce time waste, allowing builders to focus on what they do best—building.

**Eliminate Rework**
Take a look at your last project. How much did it cost you to redo work because of outdated plans? The median cost of rework due to poor document control costs the U.S. industry $4.2 billion a year. A good digital construction solution will help you dramatically reduce rework because every member of the team always has the most current set of documents on hand. With sheet compare functionality, you can also easily overlay any two sheets to view changes, identify clashes, and review constructability.

**Reduce Paper and Printing Costs**
How much did you spend on paper and printing on your last project? Exorbitant printing costs continue to be one of the major expenditures for construction projects. Construction expert Houston Neal calculated that on average 37 million blueprints are printed every year. Depending upon the size of your project, printing costs could set you back anywhere from $1500 to well over $1M.

On average, the price per black and white blueprint is $1.70.

Let’s assume a commercial construction firm bids on 100 jobs a year. If the firm prints 10 blueprints for each job at $1.70, the firm will pay over $1700 for blueprints alone, which doesn’t include other printing required for invoicing or reporting.

This means that by going paperless, you can experience dramatic savings and eliminate unnecessary costs with the right software.
Protect Your Plans
Paper tends to pile up, making it more difficult to locate and access documents that are critical to completing your projects on time. Important documents are often misfiled or lost. In the event of a catastrophic occurrence, such as a fire or flood, your files could be lost forever. Paper is destroyed easily, but the cloud is always secure. When documents are stored digitally, you can rest easy knowing your data and files are protected by SSL security and regular back-up. By digitizing your plans, you won’t ever have to worry about waterlogged, ripped, or missing plans again.

Improve Accountability
The best construction software will timestamp and date all actions and let you see who did what, where, and when. No more trying to decipher handwriting to figure out who marked up that sheet. Easily recall information in case of litigation.

Save the Environment
Paper needs to come from somewhere, and using less paper means fewer trees are cut down. In fact, some experts have suggested that at least 42,000 trees are killed each year to print blueprints\(^4\). If these trees were laid end-to-end, they would span the distance between New York City and Washington, DC. However, when construction companies go paperless, everyone wins.

PlanGrid stores over **50 million** digital blueprints in the cloud, making it the largest digital blueprint repository in the world.

The average price per black and white blueprint is **$1.70**.

At this price, 50 million blueprints would cost **over $85 million**.
5-Step Plan to Success

If you’re still using paper, but you’re ready to switch to a digital construction solution, it’s important to do it right from Day One. Even the best solutions can backfire without proper preparation. We’ve put together a 5-step plan to help you transition to a paperless construction company as quickly and painlessly as possible.

1: Choose Your New Software

Once you’ve decided to make the switch, it’s time to decide which software to use. This isn’t a decision to be taken lightly—your choices will affect the way your business operates, and you’ll be trusting them with your valuable data.

First, conduct an audit of all available platforms. Ask around at other companies: what are they using and why? Do some research, list pros and cons, and be as detailed as possible. You should carefully consider the following:

- **Functionality:** What will you be using most (e.g. viewing sheets, making markups, and tracking issues)? Figure out what you need, what you want, and what would be nice to have. Below is a short list of software that can help you eliminate common paper-dependent processes in construction:

  - **Productivity software**
    Do you need to eliminate inefficiency and waste that leads to schedule and budget overruns? Are you tired of poor document control that leads to rework? Construction productivity software can help you dramatically increase your productivity by eliminating paper processes. PlanGrid construction productivity software can improve document control by storing all your blueprints and documents digitally, enable real-time reporting, and save you time. PlanGrid can also help your team communicate faster and more efficiently without paper.

  - **Project management software**
    Do you need to manage project schedules, budgets, and tasks more effectively? Project management software can help ensure your project comes in on schedule and within budget.

  - **Accounting software**
    Do you want to eliminate the piles of paper invoices around your office while improving accounting? Good accounting packages will include payroll and general ledger. Say goodbye to your accounting headaches.

  - **Estimating software**
    Do you need to find a better way to calculate the total cost of a construction project? The best platforms include takeoff software, cost databases, and estimating worksheets. Imagine being able to complete these common tasks entirely without paper.
Now that you’ve decided what type of software your company needs, make sure to consider the following factors as you begin evaluating solutions:

- **Technology familiarity**: Evaluate your team’s familiarity with technology. Select software that’s easy to use and will be easily adopted by your employees.

- **Integrations**: Do you already use other systems (like Box, CMiC, or Newforma) that integrate with your potential new software? What manual work will the integrations help to automate?

- **Customer love**: Which companies listen to their users and make regular updates to their apps? What do their reviews say on the different app stores?

- **Platform compatibility**: Does your team use iPhones, iPads, Android devices, Windows devices, or a mixture? Will your chosen app work on the devices you need it to work on?

- **Support**: What do the reviews say about support? Is it easy to get instant help? Are there resources (in-person training, consulting, etc.) available to make rollout even easier?

Once you’ve selected best-of-breed solutions, it’s time to do some spring cleaning.
2: Clean and Organize

You’ve chosen your platform. Now it’s time to get everything ready for your new system. Every company is different, so how you go about preparing to switch to a digital solution will vary depending on how you operate.

We recommend—where possible—purging your paper documents and plans. Scan and upload as much as you can to your chosen file storage system. Make sure you decide on naming conventions, and stick to them. If your file storage system allows tagging, use it to make it easier to find things in the future.

In short, digitize as much paper as you can.
3: Keep Learning

The best software is easy to use, but it should also be powerful—and unleashing the full power of any tool involves getting to know it intimately.

As part of your selection process, you’ll hopefully have chosen a platform that offers support and training. Now is the time to utilize this, especially if rolling out on a large project or across a company. The right consultant will help you establish company or project-wide standards, naming conventions, and workflows; saving everyone a ton of time in the future.

Ensure that you:

- Consult with your team to decide how you’ll use the software to maximize its return on investment.
- Document your processes so that anyone can refer to them in the future.
- Use all resources available to you (training, consultation, etc.) from your chosen platform, so that you’re prepared when it’s time to go live.
4: Roll Out

Once your company has selected a new tool, cleaned house, and learned everything you can, it’s time to test your preparation and discover how the new system works in the real world.

It’s best to start with a single project, learn best practices, and then expand from there.

While using your new software system, record as much as possible, and attach dollar values wherever you can (material costs, labor costs, etc.):

• How much time are you saving?
• How much rework are you avoiding? What were the potential costs associated?
• Where is the software lacking? This is valuable feedback for your software provider, so be sure to keep track of potential improvements.
• What isn’t working/what should you have done differently during rollout?
• Which tools are being underutilized, or not used at all?
• Is everyone on the project team following the standards put in place during training?

The more you record now, the easier it will be to evaluate the success of the rollout later.
5: Evaluate

Evaluation is the most important of all the steps. There’s no point continuing to use a paperless solution if it doesn’t save you time and money.

If you’ve taken Step 4 seriously and have recorded time and money savings, you might be able to calculate ROI. This is an important number, since it’s likely you spent money on acquiring the system, training, and rollout—but exactly how much did you save?

Hold a meeting after the project is complete. Get your team together around a meal, a drink, or both, and ask yourselves:

- How much money and time did you save with the new system?
- What did people like/not like about it?
- What could you do to better to prepare next time?
- Did the training and preparation make a noticeable impact on the success of your rollout?
- What feedback does your team have for the software developers?
- Should your team use this system again or try something new?

Consolidate your feedback, pass it on to the software company you’ve used, and make a plan for your next project to make the whole process even smoother.

Welcome to the construction revolution.
Conclusion

The construction industry has been lagging behind other industries when it comes to productivity. The lack of investment in technology within the industry and a systemic reluctance by both employees and managers to embrace new innovations has caused construction productivity to remain flat for decades. However, adopting new technology will allow owners to save time and money as well as free contractors from paper dependencies that threaten their competitive advantage—indeed, their very livelihood.

Although going paperless isn’t easy, by following our 5-step plan, you will be able to experience the substantial benefits without significant risk. While there are many software options that will help you improve your productivity and your bottom line, no matter which solution you choose, going digital will help reduce risk, increase ROI, and boost productivity.

The construction industry is experiencing a digital renaissance that has the power to influence how construction is managed for the next 100 years. We hope you’ll join thousands in the industry who are experiencing the benefits of transitioning to a paperless construction company.
Endnotes


Learn More

7 Tips for Getting Field Teams to Embrace Construction Software

Even the best construction technology can face resistance in the field. Whether you’ve just bought construction software or you want to inspire your team to make the switch to digital, download this ebook to find out how to get your coworkers on board.
See a Live Demo

PlanGrid is the most expedient way to transition to a paperless construction company. By using PlanGrid you will:

- **Save time:** 90% of project costs occur in the field, not the office, and most can be attributed to time waste or delays. With PlanGrid, you can reduce wasteful trips to the trailer and all but eliminate time delays with faster collaboration and communication.

- **Eliminate rework:** A primary cause of schedule and budget overrun is unnecessary rework due to managers and field teams working off an inconsistent paper record set. With PlanGrid, you’re always working from the most current documents, eliminating errors that lead to costly rework.

- **Reduce printing costs:** By storing all of your blueprints in the cloud, PlanGrid will help you dramatically reduce exorbitant printing costs.

See a live demo, or give us a call at +1 (415) 429-1227.

Try PlanGrid for Free

There is a reason why PlanGrid is not only the #1 construction app, but also the highest rated. With PlanGrid construction productivity software, you can streamline document management, access all project information from any device, and seamlessly collaborate within teams.

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