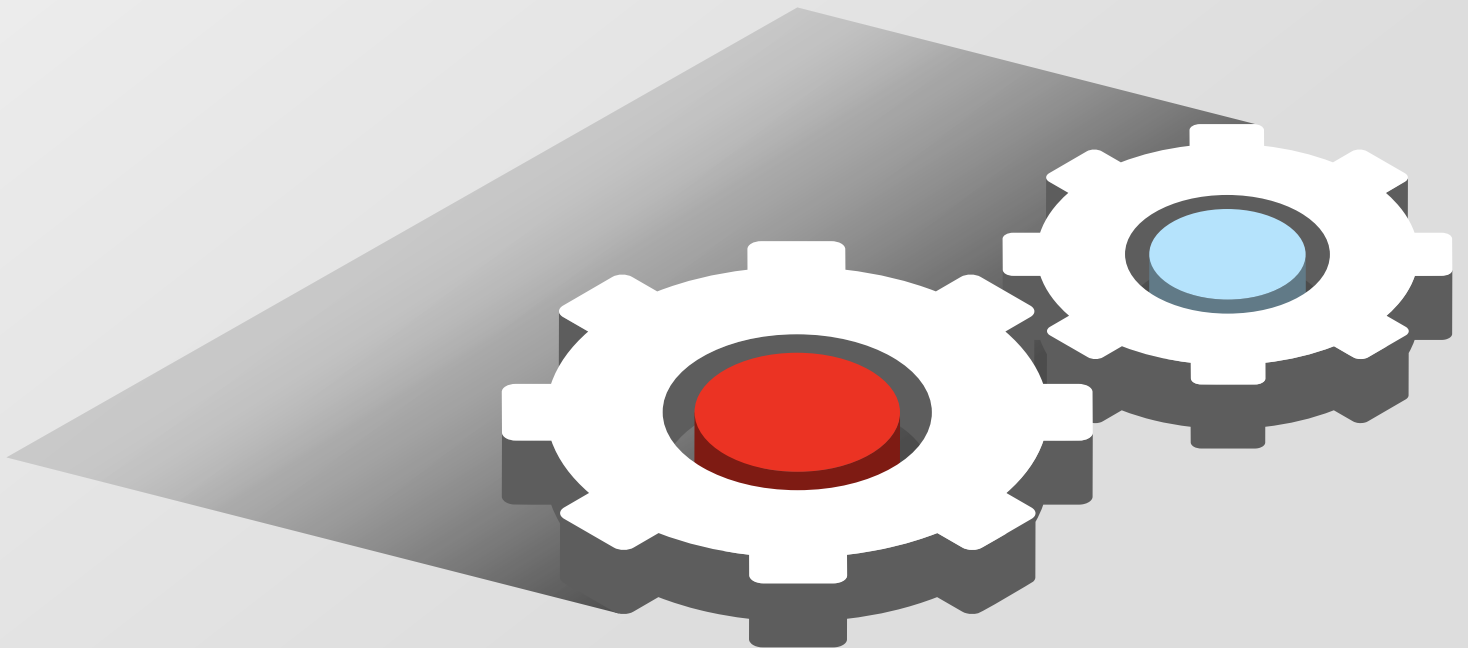




GUIDE

The Buyer's Guide to Construction Safety & Inspection Software



So, you've made the decision to stop using paper forms and modernize your construction firm's field safety inspection management processes. Now what?

Taking a methodical approach to evaluating your options and choosing a solution will help ensure that you achieve the results you want, without hidden costs or maintenance hassles as your company takes on bigger, more complex projects. There's a lot to consider, so let's get to it.





What to look for

You'll want to take an analytical approach when considering your choices. Cost matters, of course, but making it the deciding (or only) factor can leave you with a platform that causes more problems than it solves.

For example, say you decide to go with fillable PDFs because they're the least expensive option. You've solved the initial issue of cost, but are likely to spend more in the long run making up for PDF shortcomings, like data collected in fillable PDFs is neither easily shared nor validated. You end up with the same problems you started with, plus one more – you've wasted time and resources on a solution that doesn't do what you need it to.

Ideal construction field safety inspection management platform characteristics

To see real improvements, your construction field safety inspection management platform needs to:

1. Make safety and inspection processes more efficient.
2. Make your safety and inspection data useful to more people once it's collected.
3. Make the results of your processes clearer and more easily available.

In other words, your solution needs to simplify (and in other ways improve) how your workforce approaches safety and performs inspections. You also want it to interfere with business operations as little as possible while showing the maximum amount of value. So where do you start?

Data Collection

Let's begin with improved data collection and sharing capabilities. You'll want to find a platform that:

- **Improves reliability and consistency.** A digital field inspection management platform allows your workers to go step-by-step through inspections, even when a supervisor isn't around to assist.
- **Gives you real-time updates.** See what your teams are doing across multiple inspection sites, without having to connect via phone, text, or email.
- **Augments documentation and evidence.** When your employees can share photos, videos, or even audio recordings of their work, you get a clearer picture of how well they're inspecting and what they're seeing, without being on-site.
- **Increases both data quality and speed of inspection.** Data is propagated exactly as entered, with customized dropdown lists, choice lists, and classifications. No longer will you struggle with transcription errors or deciphering illegible handwriting.
- **Ties in multimedia seamlessly.** Because digital inspections bring the data fields and the multimedia fields together in a single process, you don't have to do things like match up inspection records with photo or video filenames in a directory.
- **Prevents lost data.** Once the data is synced, there's no worry about spilled coffee obscuring a signature. Captured data is stored permanently and is 100% auditable.
- **Shows you where things are happening.** Geotagged data not only provides further verification of completed work, it also enables a faster response to safety incidents or other urgent situations.

Reports

Next, consider how you'll be using your inspection results. One of the major benefits to moving to digital field inspection management is the ability to turn around reports quickly and leverage that data faster. Look for a platform that:

- **Streamlines inspection reports.** Instead of waiting for people to get back to the office to transcribe inspection data, information can be synced anywhere there's cell or Wi-Fi connectivity. Because the data is stored consistently, it's easy to create templates that enable your workforce to crank out reports as soon as the data is synced.
- **Shares inspection data easily.** You want a platform that sends out emails or texts in real time when certain conditions are met, such as the identification of a serious hazard. In addition, inspections should be able to kick off workflows in other systems, or share data with external parties in forms that are easy for people to use (e.g., CSV for Excel) or for systems to consume (e.g., JSON). Your platform needs to be able to share photos, video, and other content as easily as basic data.
- **Delivers metrics.** Metrics are key to proving the value of your safety and inspection programs. By using the data you collect to improve on your safety and inspection processes, you reduce the risk associated with you.
- **Enables analytics.** Modern analytics, especially AI, can consume immense amounts of data, and the more you can feed into it, the better. By piping high-quality data directly from your field safety inspection management processes into business analytics in real time, you can make better, faster decisions.

Workflows

You want a field inspection management platform you can leverage to improve workflows within and between job sites, which automates processes wherever possible, and integrates with enterprise systems to support business operations.

For example, if a piece of equipment fails an inspection, your maintenance manager should be notified instantly to put the repair in motion and get your equipment back in service as quickly as possible. You also want your maintenance manager to be able to quickly identify trends if multiple pieces of equipment fail inspection for the same reason, so they can be addressed proactively rather than waiting for a catastrophic failure to occur.

While it's important to consider how easy it is to digitize your current checklists, ease of use should not end there. If all your mobile inspection platform can do is convert checklists into digital forms, your ability to use the collected data will be severely limited.

Sure, you want to be able to recreate checklists easily, but your solution needs more functionality than that. Checklists are only the beginning, and soon you'll want to move toward something that behaves more like a fully featured digital field inspection management platform than a simple digital checklist.

Lower your EMR

The right field inspection management platform will help you build safety into the fabric of your operations, resulting in fewer incidents and a lower experience modification rate (EMR).

An EMR below the 1.0 average not only helps reduce your insurance premiums, but it also improves your ability to attract top talent, take out loans, and win more contracts with larger clients. Most importantly, it means your workers are more likely to go home safely at the end of their shifts.

You need a solution that provides digital checklists to ensure that:

- Every worker has access to the same standardized forms
- Automated workflows enable faster hazard response
- Inspection and incident reports are stored securely in the cloud
- Data is readily accessible to show clients, insurers, and other stakeholders that you are taking continual steps to reduce risk

Process Improvements

Finally, not only do you want to improve safety and quality, but you also want to improve your mobile inspection processes themselves. To accomplish that, your solution needs to:

- **Make mobile inspection processes more accessible to more people.** Giving your workers digital checklists on the phones that they are already carrying is ideal. It should be simple, user-friendly, and easy to deploy, providing a quick and painless way to flag problems on an ad hoc basis.
- **Capture and use information about the inspection process.** For example: Where was the person when the data was collected? How long did it take to complete the inspection? Did the inspection record require revision?
- **Make process improvement accessible.** It's difficult to keep everyone up to date when all changes must go through IT. A platform should allow non-programmers to create workflows and automate key processes for greater consistency without waiting in an IT department queue.
- **Work well with others.** A platform should initiate processes in legacy systems and integrate with other critical IT infrastructure, whether it's geographic information systems (GIS), Salesforce, or another SaaS application for data-driven automation.

Clearly, fillable PDFs fulfill none of the criteria for process improvement.



Software Platform Characteristics

People often think about the functions that software performs, leaving discussions of the platforms to the technologists. But savvy contractors know about technology, and consider the following when purchasing software:

- **Cloud computing.** This is when the software is running on a computer that you don't own or manage. It may sound risky, but conceptually it's no different from putting your money in a bank operated by a company you don't run. Cloud computing lets you expand storage and computing capacity without buying new hardware, providing the flexibility you'll need as your program grows. It also means you don't have to rely on IT to do database backups and security audits, but instead outsource the most tedious, lowest-value IT functions.
- **Software-as-a-service (SaaS).** In this scenario, you're not only handing off the hardware/operating system/networking infrastructure, you're also outsourcing the application itself. Your IT department will not need to do upgrades or troubleshooting. Instead, your duties are limited to administering the parts of the application that matter to you – for example, assigning permissions.

- **Configuration and customization skills needed.** In most circumstances, customizing inspection processes should be no more complex than creating a spreadsheet or working in a Word document. In rare circumstances, your customization requirements might be more significant. When that's the case, consider what it would cost to contract for the skills you need on the open market. If the software can be customized with code, does it require you to know an obscure, proprietary language, or does it harness the power of easy-to-find languages like JavaScript? The answer to this question may determine whether you'll have to turn to the vendor for any small change or will be able to get low-cost skills to handle most custom requirements. Determining what skills are needed will also help you learn whether the services you contract for will be expensive with specialists or cheaper with generalists.

Non-software, "soft" requirements

When choosing your solution, there's more to consider than just software itself. You'll also want to examine the vendor and how they will interact with your business by asking questions about:

- **Financial viability.** Will the vendor be around to support you for the long haul? Are they sufficiently capitalized to adapt to changing circumstances and continue to develop the software as your program grows?
- **Professional services.** Can the vendor support you when you need a surge of horsepower? Can they provide best practices for developing your safety and inspection checklists and apps? Are they cost effective?
- **Managed services.** Do they have the capability to take on the entirety of application management? Do their managed services save you time and money, or is it simply another monthly expense?

- **Support.** Does the vendor understand you and your needs? Do they have a good reputation for support? Do their customer success stories reflect good relationships with customers? Do third-party surveys support their claims?
- **Cost.** Cost is listed last because while it's always going to be a consideration, you must understand what you need (and what you're paying for) to decide what is a reasonable price.

The big picture: the total cost of ownership

When we talk about cost, we're talking about more than the cost of the software or the cost per user of the online service. You need to consider the Total Cost of Ownership (TCO), which includes the following things:

- **Software licensing costs.** If you're installing the software on your own machines, it's probably on a per-installation basis. If the contract is for SaaS, software licensing costs are probably user-based, but the costs might also be based on some other usage factor, such as data storage, number of checklists you can create, or some combination.
- **Data collection hardware.** For construction safety field inspections, you'll need mobile devices of some sort to collect data, and most likely that device will be a tablet or a smartphone. If your workers have their own phones, you might not have any additional hardware costs at all. You might wish to outfit inspectors with specialized hardware (e.g., ruggedized tablets), while others are enabled to report safety hazards using an app on personal mobile phones.

- **Centralized hardware.** This is the hardware that runs the software that allows you to create checklists, build apps, perform administrative tasks, do reporting, and more. If you're buying, installing, and maintaining the software on your own computer – an “onpremises” installation – then you must consider how powerful that computer needs to be now, and make reasonable estimates to accommodate for growth. If you install software in the cloud, you can increase power just by paying more. In addition, if you use SaaS, there's no additional hardware cost at all – your computing-power cost is layered into your software licensing costs.
- **Maintenance and services costs.** These include setup, professional services, and managed services. If you're buying, installing, and running your own software, consider the cost of upgrades and hardware administration, customization charges, and integration work.

On-premises installation vs. SaaS

The strongest trend in the software industry has been toward SaaS because of its simplicity of acquisition (an operational expenditure vs. a capital expenditure), simplicity of administration, and simplicity of maintenance. When in doubt, simple is almost always preferable to complex.

It's best to have a plan that looks at expansion over at least the next two years, and to have a thumbnail sketch for pessimistic, expected, and optimistic usage scenarios. It's important to consider that more users might mean more of all of these factors, including customization – the more people that use a given platform, the more they'll want it tailored to them.

On premises:

Install, configure, customize, administer

- You own and maintain (e.g., update)
- Pay up-front costs plus maintenance as capital expenditures
- Requires more specialized skills & training

SaaS:

Customize, administer

- You “rent” with automatic upgrades
- Pay an annual or monthly fee as an operating expense
- Fewer skills and less training required

Consider Fulcrum

Fulcrum's SaaS-based field inspection management platform modernizes mobile inspections by driving intelligent automation to maximize field team performance and agility, allowing clients to:

- Digitally transform safety, quality, and asset inspections
- Ensure process rigor and compliance
- Connect worksites with the back office
- Harness the value of location in apps for mobile teams

At Fulcrum, we're committed to providing the best value and support for our customers. We have helped thousands of organizations modernize their field safety inspection management programs.

Can Fulcrum help you? For qualified companies, we will take an existing safety checklist or inspection form and digitize it for free, giving you the opportunity to evaluate it for yourself in the field.

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