

### How Automation Can Accelerate Your Safety Program

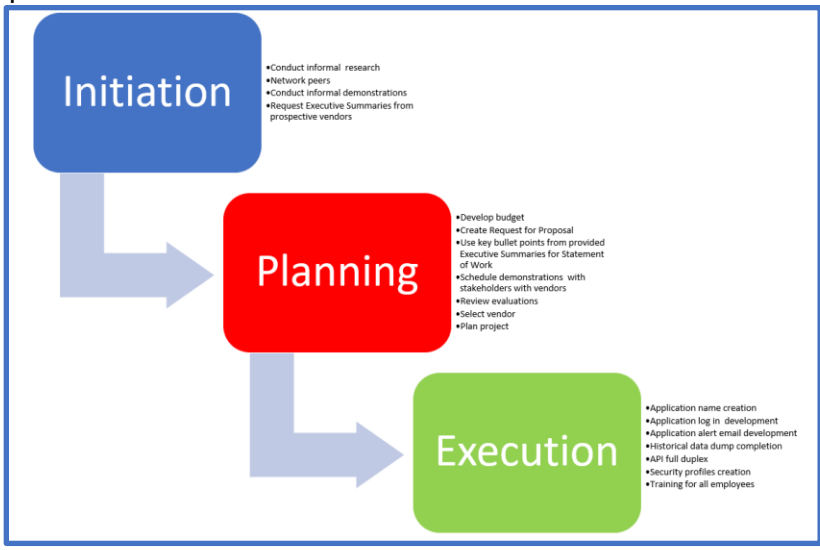


Let's start with some ice-breaking questions. How many of you would like to use automation to:

1. Assist and streamline your safety inspections?
2. Schedule, record and track your safety training?
3. Develop reports?
4. Create charts?
5. Record the number and locations of common safety assets such as fire extinguishers, first aid kits, safety showers, eyewash stations and AEDs?
6. Enter injury/illness reports?
7. Enter vehicle accidents?
8. Enter near misses?
9. Catalogue Safety Data Sheets?

If only there were cloud-based software to make your life easier. There IS! I will assist you with a business case for why automation is your friend and will save you precious time by streamlining your routine safety tasks. My business case will be a simple question: *"What do you want to automate and why?"* Your response will lead you to all kinds of vendors who will promise you the world and deliver it—for a price.

The purpose of this white paper is to provide you with tribal knowledge on how to navigate selecting a safety software company to meet your municipality's needs. This is a topic not taught in any safety certification school that I am aware of. It will not be an easy process. It will involve planning, collaboration, meetings, data entry on numerous templates, salesmanship, trial and error, a request for proposal, contracts, details, and a thorough knowledge of your processes in both current and future states.



I will not be endorsing any specific safety software companies in this artefact. If you want to know which companies I currently use, you may contact me via my email address at the end of this document to discuss it offline.



When purchasing safety software, don't think about how much it costs. Think instead of the time and paper you will save, the wasted movement you will eliminate and the processes you will have streamlined or assigned a numerical value to your time in the form of your hourly wage. Will the program you select net a Return on Investment (ROI)? It depends. In the end you are limited to your vision, the vendor's capabilities, and your budget.

I will steal a page from my Lean Six Sigma Green Belt training. In one of my classes, they discussed the eight forms of waste. This is your true north when searching for a worthy vendor.

Can the solution eliminate defects in your current paper-based process?

Can the solution reduce or eliminate over production?

Can the solution deliver reporting in real time?

Can the solution eliminate the transportation and motion of dead trees from inbox to inbox?

Can the solution eliminate the need for binders and files?

Can the solution optimize my non-utilized talents?

Can the solution eliminate extra processing?

I want you to think of yourself first, because in the end you will be the Chief Administrator of this program. Then look at the fit, form and functionality for your customers. Network with like-minded safety professionals before you start your cost vetting and find out what they use. I would recommend attending conferences and talk to vendors. Read safety magazines like *Incident Prevention*, *OSH*, or *Safety + Health* to research vendors that specialize in what you want to make sure all baseline requirements are met. That means scheduling numerous online demos. Before you start your virtual tours, allow me to put an example in your mind. Everyone here has shopped with Amazon at least twice, the first time and the last time. You pushed the button, and it did the thing. You want your safety management system to be that easy- from A to Z. This should be your ultimate vision for how a safety software should fit and function for both you and your users.

After you have been through the informal demos, request an Executive Summary presentation. Thank each vendor for their time. Explain to them that your organization will be conducting a Request for Proposal (RFP) process. Their email contact information will be included on the statewide bid.

### Request for Proposal process

An RFP may be necessary depending on your organization and the cost of the software. Introduce yourself to the folks in the contracts and procurement office, let them know your intent and that you need their help. The RFP is pretty much a boiler plate template. Procurement will need your help on the Statement of Work and the Evaluation Criteria. Use the best bullets from the executive summaries you have received to assemble the statement of work. This is the bottom-line up-front expectations of the vendor and their product's performance. The Evaluation Criteria will alert the prospective vendor how they will be graded before being awarded the contract.

There will be a clause that allows vendors to ask questions to help them define their proposal. Some frequently asked questions I have fielded from vendors included:

- How many incident reports do you average per year?
- How many Safety Data Sheets are in your inventory?
- Can you provide a list of historical documents, the format and data sets you want to upload?
- How many vehicle accident reports do you average per year?
- How are your attachments formatted?
- How many attachments are included with each incident?
- What is your current process for incident reporting?
- Do you have an expected go-live date?
- In what format we (our company) receive integrated data from outside sources?
- Is there a budget that has been set aside for this project?
- How many employees will be using the platform?
- Will there be a single sign on or a unique log in?
- Is the request for mobile device access a need to have item or a want to have item?

### Safety Inspection software

If you are anything like me, you arrive at a jobsite with your PPE, clipboard, pen and cell phone. Hours later, after making dozens of observations, you're done. How many hours did you spend on the actual wall-to-wall inspection? Two, maybe three? Now you must research your findings with your latest copy of the OSHA Standard and create countermeasures. In addition, you must create a report that is digestible to management. Will it be a lengthy email or report detailing your observations? Will it be a super dense PowerPoint presentation with properly formatted photos? Will it be an Excel spreadsheet with charts? Will it be combination of all of the above? How many hours will you spend assembling and formatting all of this data? Let's guesstimate four hours. That is six hours or three quarters of your workday you will never get back. Let's quantify that into dollars and cents. This is how you sell your vision to the decision makers.

6 hrs. (actual inspection and preparation time) x \$40 (hourly wage) =\$240 per inspection  
25 (total inspections in a year) x \$240 = \$6,000

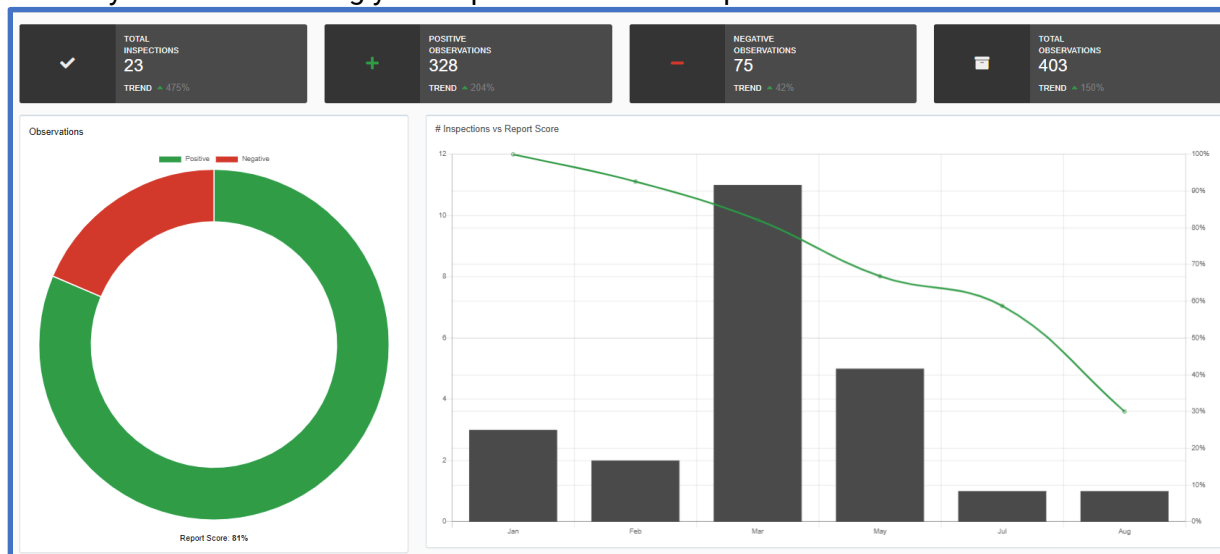
Based on this scenario, if your inspection software costs less than \$6,000, it will pay for itself in less than one year.

What else could you have accomplished in that time? How many more safety projects could you implement? Do we have a current system that could function as a source system with modification that would support safety events, training, vendor expos or PPE demos? What if I told you there is software in existence that can cut that amount of time by 50%? Based on the above scenario, 25 inspections x 6 hours = 150 hours. A 50% reduction would net you 75 hours, a labor reduction cost savings of \$3,000 to your organization.

Basic features should include an OSHA itemized checklist for every inspectable safety category. It would be nice to have hot links directly to [www.osha.gov](http://www.osha.gov) in case you are not sure what the standard says, how to interpret it and how to apply it. It should have the capability to load pictures and PDFs with no degradation. It should be capable of generating manual and scheduled reports. You should be able to generate cover letters to accompany your report. NO MORE CLIPBOARD COMMANDO style paper reports. Wouldn't it be great if your program was able to calculate scores?

Score Summary	#	Severity Summary	Qty
Issues Identified:	1	N/A (Not Assigned)	0
Positive Findings:	12	De Minimis (No Penalty / Warning Only)	0
Total Findings:	13	Other-Than-Serious violation \$13,653	0
Percent Positive:	92.3%	Serious violations \$13,653	1
Severity Adjustment:	0%	Repeat violations \$136,532	0
Final Score:	92.3%	Willful violations \$136,532	0

What if your boss is asking you for proof that these inspections occurred?



Look no further. These features and more await you. You need to be patient and keep searching until you find the right company for the right price. These features are one LESS spreadsheet and chart for you to create! Another thing to request is adding to the existing inspection module to fit your organization. In addition to OSHA 1910 and 1926 safety standards, can you add Department of Transportation inspection standards, ergonomic inspections, COVID-19 inspections, job-site inspection checklists, pre-operational checklists? If you don't ask, you don't get.

Advanced features should include assigning corrective actions to responsible parties within your organization. In addition, you can track the progress of these corrective actions. As the responsible party closes their respective corrective actions you should receive an email alert detailing all open corrective actions.

### **Safety Training or Learning Management Systems**

The pandemic taught us to pivot away from in-person to virtual. The problem was that many of us couldn't migrate fast enough. At my organization we found out how tech-savvy some employees were and were not. It demonstrated the disparity of hardware and software throughout the organization. There were desktops in use with Microsoft 97 software. Many users of Microsoft Teams were not outfitted with cameras or microphones. We found many users did not have access to desktops and were reticent to have email and Teams loaded to their personal cell phones, which contradicts city policy. Due to these constraints we had employees accessing virtual meetings via telephone for audio and desktop for visual. Once restrictions were lifted, we reverted back to in person as we addressed these technological shortcomings piece by piece. It addressed how over the decades our IT department had been underfunded and understaffed to cover an organization as large as ours.

Does your training involve paper sign-in sheets? What about paper copy handouts? What if I told you we can eliminate the paper, make your process electronic from A to Z and save time in the process?

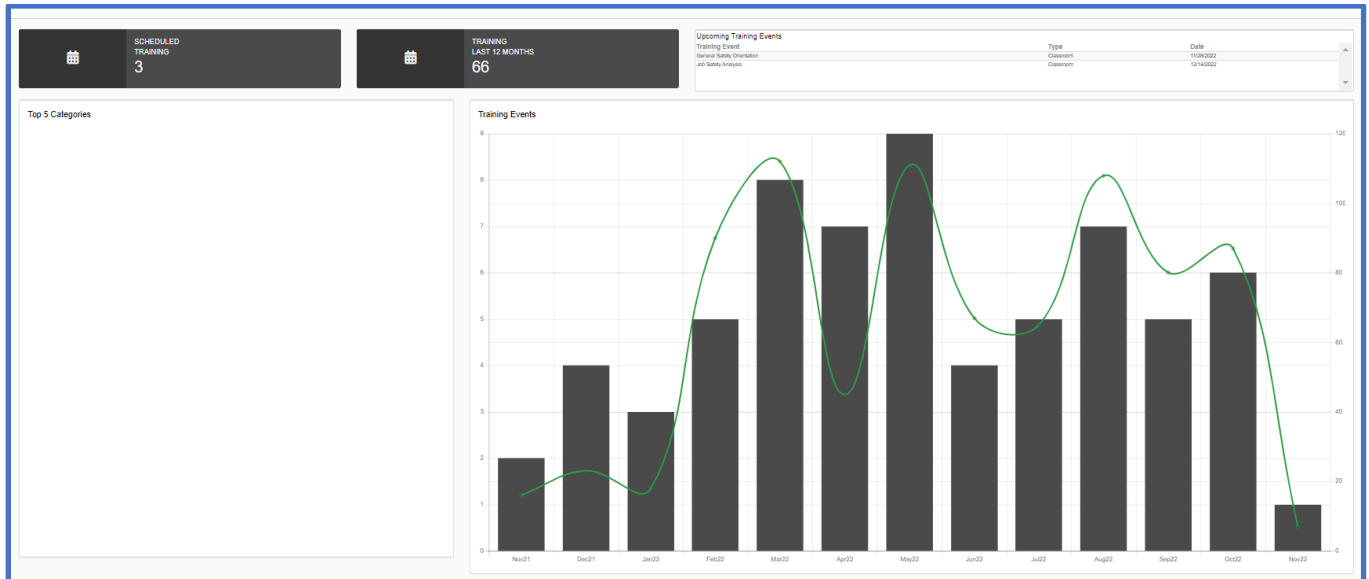
$$\begin{aligned} &1 \text{ hr. (actual training time)} + 1.5 \text{ hrs. (preparation time)} = \\ &2.5 \text{ hrs.} \times \$40 \text{ (hourly wage)} = \$100 \text{ per training} \\ &25 \text{ (training sessions per year)} \times \$100 = \$2,500 \end{aligned}$$

Based on this scenario, if your training software costs less than \$2,500, it will pay for itself in exactly one year.

Basic features should include four figures' worth of on-the-shelf content, and the ability to load personalized content. You should be able to load and manage employees' attendance. No more paper sign-in sheets! No more Excel spreadsheets! Let the software do the work for you. Scheduling training should not be limited to a calendar.

Advanced features should include the ability to assign training, set up calendar reminders and run scheduled reports. Other advanced features may include the ability to network with other

systems, such as a Human Resources Information System (HRIS) or the use of enterprise resource planning (ERP) to continually update employee listings. That will involve an Application Programming Interface (API). Remember that technological term, we will discuss that in a bit.



### Incident Reporting

Here's where you are going to earn your pay as a Supreme Safety Officer of the Universe! A good incident management system will require an API to network with your HRIS or ERP, your fleet inventory system, your Learning Management System (LMS) and your third-party administrator.

This interface eliminates data-entry errors trying to read an employee's handwriting. Auto-populate certain fields based on a critical locator field. Remember the Amazon.com shopping example? You push the button, and it does the thing. You will have those capabilities with a good incident reporting system.

Say a supervisor is filling out an injury report. Before they get to the actual incident details they need to fill out a lot of employee demographic information:

- Employee number
- Full name
- Home address\*
- Home phone \*
- Work phone\*
- Date of birth\*
- Sex\*
- Date of hire\*
- Social Security number\*

- Job title
- Vehicle Identification number
- Driver's License number\*
- Driver's License type
- Type of vehicle (model, make, year)
- Department
- Wages per hour\*

What if the asterisked items above were redacted to everyone who didn't have administrator rights? What if you could define the workflow of your accessibility and reporting? What if you had the ability to push an entire injury packet of data from your platform directly to your third-party administrator? What if we went full duplex with that data exchange and the third-party administrator could push data back to you in the form of workers' compensation costs per case and aggregate that data? I can see you smiling from here. Ask for it and it shall be yours -- for a price. As the Chief Administrator you can manage that process. What if you could define the key performance metrics that each upper manager sees? What if the system has room for growth? Meaning if your budget can only cover a certain amount of basic modules, is there a holster full of additional a la carte modules your organization can budget for and grow into over time?  
 $1/2 \text{ hr. (actual incident report processing time)} \times \$40 \text{ (hourly wage)} = \$20 \text{ per incident report}$   
 $250^* \text{ (total incident reports per year)} \times \$20 = \$5,000$  \*To include injury and vehicle reports combined

Based on this scenario, if your incident reporting software costs less than \$5,000, it will pay for itself in exactly one year.

Stakeholders' evaluation sheet: The Voice of the Customer where they grade each vendor on what they like and saw and what they do not like

[COMPANY NAME]	Assessed Points	Maximum points
Injury / illness reports		10
Vehicle accident reports		10
Audits & Inspection		10
Performance Metrics		10
Safety Meetings		10
Water Quality		10
Waste Compliance		10
Near miss		10
Ergonomics		10
Safety Data Sheet Management		10
On Demand Training		10
Risk Analysis / Job Safety Analysis		10
Corrective Action		10
Inter-communication with other systems for employee demographic data		20
Secure transmission from point to point?		20
Redacted reporting within workflows for incident reports?		20
Software Updates included free Y/N?		20
Custom analytics (dashboard data)?		20
Data dumps from outside sources?		15
Implementation time in weeks/months?		15
Overall user friendly [form, fit, functionality]		20
<b>TOTAL</b>	0	<b>280</b>

Request For Bid Evaluation: Sheet used by the team evaluating prospective vendors

				Company A	Company B	Company C	Company D
Form #	Description	Max Pts		Pts	Pts	Pts	Pts
<b>1. PROJECT DETAILS</b>							
	Experience and Qualifications	20					
	Proposed approach	10					
	Questionnaire	10					
	Technology	20					
	Cost	40					
	<b>Subtotal</b>	<b>100</b>		0	0	0	0

**Lessons Learned:**

1. Request demo access to their system as a user. This allows you free reign to navigate the ins and outs of the system. If they deny you this access, move on to the next vendor.
2. As you go through these demonstrations develop a list of questions.
3. Get used to the concept that behind the high-speed graphics and whiz-bang modules is an Excel template driving it.
  - a. Once you decide on a vendor, you may be tasked with completing several of these templates to build the historical data of what you already have on file.
  - b. This may involve touching numerous paper or electronic copy reports to complete the process.
  - c. The more data entry you do the better you will become.
4. Involve as many stakeholders as possible during the online demonstrations. Provide them with evaluation sheets that gauge their perception of how it works and meets their needs. Allow time for a Q&A .
5. Beware of vendors who, when asked if they have a module for a certain report or functionality, say, *"We can build it for you."* That will translate into a project that will exceed your allotted budget and your estimated timeline. In project management this is referred to as the "Death Star project." Looks great! Takes forever to build. Costs entirely too much. Can be destroyed by a single rebel pilot.





6. Get the technology services assets on your side. At some point, the project status meetings will stop speaking English and everyone who is capable will start speaking IT jargon. If you don't understand, stop the meeting and ask for clarification.
7. Application Program Interfaces (API) is a tech term you need to understand, especially if your safety system(s) need to share data with another system.
8. Be clear in your statement of work. Specify what you want. Form, fit and functionality. Amazon simple. Whichever system you fall in love with, copy and paste those capabilities into the statement of work.
9. Beware of questions from prospective vendors like:
  - a. *Do you want your data in real time?* Yes.
  - b. *Do you require training beyond the launch date?* Your goal is to have a platform that either records training for new employees or offers access to a help desk support team.
  - c. *How will your attachments be formatted?* If a vendor is asking you this, it is a red flag they do not have the bandwidth to handle your volume of reporting.
  - d. *How many users will be on the platform?* Negotiate on pricing if possible. Your goal is a flat fee for unlimited users. You want every employee to at least be able to input data like an incident report or a near miss. You do not want to restrict access. If that is not available, request group a discount, i.e. 0-49 users = \$xxx; 50-99 users = \$xxx.
10. Request vendors show you every module in their catalog, not just cherry-pick the ones they want to sell you.
11. Beware of vendors who are fixer-uppers in that they have nothing pre-built. This is a Death Star in waiting.
12. Request up front that any updates to the programming does not result in an upcharge to you as the customer.
  - a. Find out what impact these updates may have on other supporting systems.
13. Request video training on the system.
14. Find out who the vendor's project manager will be and who will be on the team. If the CEO appoints themselves as project manager you are dealing with a small-scale, basement operation.
15. Do as much as you can virtually and online before you deploy their technicians to your organization to keep costs down. Virtual project management update meetings and training are par for the course nowadays.
  - a. If a vendor insists on in-person training challenge them to go virtual. This reduces travel expenses which will be added to the overall cost.
16. 24/7 tech support is a sign of a good company.
17. Project management 101: Plan the work. Work the plan.
18. Project management 102: Add 10% to the budget plan for unforeseen obstacles.
19. The lowest bid will not be able to deliver on your vision of how the software should function.

20. The highest bid will not be able to deliver on your vision of how the software should function.
21. Ask questions from any of the references that your prospective companies provided.
  - a. What do they like?
  - b. What don't they like?
  - c. If they had to do it all over, who would they have chosen and why?
22. Be flexible in your thinking.
  - a. If their module exceeds what you are currently doing, simply adapt to the new process.
  - b. If their module does not meet your needs, put in your request to the development team to upgrade it. Volunteer to beta-test it.
  - c. Not everything will go your way.
  - d. Allow the play to develop.
23. Your organization may not be able to afford the full suite of programs a company offers. Negotiate to purchase what you can afford that cover the basics until you are able to grow within the system, and demonstrate a need and cost savings over time.

In conclusion, this endeavor will involve a lot of time. It will take a lot of planning and execution. The more you sweat during planning, the less you will scream during execution. Hopefully, you will get the software company of your dreams. I sincerely hope your growing pains are less arduous than mine. As promised, shown below is my email contact information.  
Happy hunting.



#### **About the Author**

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