GUIDE TO SUCCESSFUL CUSTOM SOFTWARE DEVELOPMENT





Build a custom business tool you will be *proud* of.

Your Insights In This Guide

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Why Custom Software?

Organizations everywhere are talking about the "digital revolution" because it's impacting the way they do business. And "revolution" isn't hyperbole; technology has transformed the way we work and live in an incredibly brief period of time. The first iPhone, for instance, was introduced only 12 years ago, and has completely changed the way we communicate, work, play, shop and pay for purchases.

But not all digital revolutions need to be earth-That's what SPARK does. We've created over shaking. Many small to mid-sized businesses are 100 custom software solutions for businesses of all sizes (from 2 to 200,000+ employees) and looking for a digital revolution that, instead of upending the way they do business, will simply across dozens of industries. This ebook boils make the things they're already doing easier that experience down into an actionable guide and more efficient. Something that will help that will help you on your journey to obtaining software that's just custom enough for you them quickly visualize and sort data so that they can see the next actionable steps. Something and your business, whether that's an app, a that will get rid of tedious, repetitive (and often dashboard or a workflow tool. (We like to say error-prone) tasks so that they can focus on that we work at the intersection of innovation growing their business. They don't need a digital and function, creating solutions that are just revolution that changes their entire world; they *revolutionary enough* to make a real difference just need one that changes their part of it in a for growing businesses.) remarkable way.



What about off-the-shelf-software?

Many small to mid-sized companies assume off-the-shelf software is their only option. And off-the-shelf software does have its advantages: It's fast and usually easy to implement. But it's also designed to meet the needs of a mass audience. That means it may have a few of the features you need and a lot of features you don't.

Here's a side-by-side comparison:

Р	ROS	CONS				
Off-the-Shelf Software	Custom Software	Off-the-Shelf Software	Custom Software			
Implements quickly	Designed to support your business goals	Doesn't meet all of your needs and has a bunch of features you'll never use	Increased upfront investment			
Comes with documentation for easy adoption	Built to work with your existing pro- cesses	You have to change your processes to fit the software	Months-long devel- opment cycle			
Regular upgrades	Can be designed to integrate with legacy systems and other tools	Difficult to customize				
	Easy to update and to add functionality as your company grows	Doesn't integrate with other software/ tools				
	<u></u>	Licensing could become cost- prohibitive as your company grows				
Why we're l	nere today.					

In general, while off-the-shelf software may be a good fit for small companies with generic processes, in the long run, custom software is almost always a better investment.

And here's the most important part: At SPARK, we don't believe in reinventing the wheel. Our most successful custom software clients have leveraged the best parts of their existing processes to serve as a foundation while we worked with them to increase efficiency, to collect better data and to visualize a process that facilitates smarter decisions and positively changes employee and customer behavior. That is the magic of custom software—you get to tell it exactly what you want it to do. If you have paper processes that are working, great! We won't reinvent them; we'll just make them better. We can even integrate them with existing processes if that's what you need.



The magic with custom software is that you get to tell it exactly what you want it to do.

Where To Start?

One of the main reasons off-the-shelf solutions, and even some custom solutions, fail is that while the business may be all too familiar with its pain points, no one has really determined what a solution would have to do to remove those pain points. It helps to think in terms of "jobs to be done" or "problems to be solved."

First, define your goals. You may know that your payroll process is clunky and archaic, but how could a digital process make it better? What would it look like? And what would it allow you to stop doing? What value-added tasks could you do with that time?

With that in mind, most objectives fall into one or more of the following categories:

Increase productivity

Employee time spent on repetitive tasks instead of value-added tasks costs the global economy an estimated <u>\$5 trillion per year</u>. Custom software enhances productivity by first standardizing tasks across business units (so that everyone submits time reports using the same form, for example) and then by automating workflows using standard inputs and custom logic. Automating mundane tasks frees employees to spend their time on meaningful work.

Build on existing processes and software

Don't reinvent the wheel if you don't have to. If various functional areas have software solutions (like an accounting platform or a CRM solution) that are working well, look for opportunities to <u>build integrations</u> that work alongside them rather than starting from scratch. It's a way to save money and to minimize disruption.

Some organizations also find value in including their vendors and other business partners in their workflows. Solutions that accommodate integrations can bridge the gap between a vendor's software and your own.

Accommodate business growth

It's a fact: Your business will outgrow some tools that worked just fine when your company was smaller. Free software that made sense when you were a startup, or legacy software that was a good fit when you were in the early stages of your growth cycle, can be limiting. As your business expands and adds layers of complexity, such as entering a new market or adding new product lines. If your tools can't grow with you, it's time to consider custom software.

Consolidate siloed databases

A unified database is critical to planning for the future. Every data point has value, and analyses conducted with incorrect or incomplete data will steer companies in the wrong direction. How can custom software help you bring siloed information, including unstructured data like scribbled notes or social media comments, into a single database, clean it up, and display it in a dashboard that allows all users to find what they need?

Perform customizable analyses

Not only does having the most up-to-date information in one repository eliminate double-work and improve data accuracy, it also enables the organization to draw better insights and make wiser business decisions through data mining, predictive analytics and personalization. Users should be able to choose their own report or search parameters to extract the insights they need and to customize their own dashboards to display the information that's most important to them.

Grant tiered permissions

Custom software is designed to make sure everyone has access to the information they need, but not every employee needs access to all data, especially with the current global push for consumer privacy and payment security. The software solution you choose should enable you to grant access to data on an individual basis.



Improve employee experience

Between the high cost of employee turnover and the tight market for top talent, many businesses are beginning to look at the employee experience in the same way they look at the customer experience: the sum of all interactions your employees have with your organization. Younger workers who have grown up with technology have little patience with slow processes that force them to waste time on mundane tasks. In fact, 71% say they expect their employer to use the same degree of technology that they use in their personal lives, and 93% say up-to-date technology is one of the most important aspects of a workplace. When you're competing for talent, having the latest technology - one that lets employees concentrate on meaningful work instead of mundane tasks—is a competitive advantage.

Navigate the complexity of a global economy

We're living in a time when technology has outpaced policies and legislation. Due to highly publicized data breaches and consumers' concerns about privacy, governing bodies and agencies are playing catch-up at a rate that's hard for businesses to sustain.

While the U.S. has yet to pass federal privacy laws, a number of states are taking matters into their own hands, making compliance even more challenging.

Then there's the issue of accessibility. Courts have ruled that the Americans with Disabilities Act applies to digital spaces as well as to physical ones — a development that has resulted in a number of lawsuits from people claiming they're unable to use a business's website. (Images, for example, are supposed to have descriptive text tags that can be read by assistive devices, and all videos should have captions.)

Custom software helps businesses navigate the evolving landscape of digital governance by monitoring legislation and applying rules, logic and triggers accordingly. For example, custom software could be applied to your email marketing so that emails sent to IP addresses in California, for example, would be compliant with the state's CCPA legislation

Don't go anywhere until you've define your goals!

The first step in your search for software is to define your business problems and consider your goals, making sure to prioritize the features that will have the biggest impact.

No software development company can know your business as well as you do, so it's up to you to identify your pain points and think about how digital processes could resolve them.

The partner you choose will likely have some suggestions (that's their business, after all), but it's up to you to start things off right by knowing what you want custom software to do.

And remember to consider any features you may need in the future, so you can lay the foundation for that capability now.

Is Custom Software the Answer?

Take this quick quiz to find out:

Have you tried off-the-shelf software to solve your problem? Typically most companies find that they have to change their processes to fit off-the-shelf solutions or find that these products have features they will never use and lack features they need.

Do you have an efficient, but unique, process that you have to make work with the tools you currently have? Maybe you have a super robust paper process that is irreplaceable. Keep the process but build a (more automated) digital version of it instead.

Do you need to integrate two or more solutions? Perhaps your accounting and payroll systems work great, but your accounting system doesn't handle project management well. This is the perfect scenario to build a project management integration into the accounting/payroll system.

Are most projects in your business unique?

At SPARK, we call that "mix". Different client profiles. Different sizes and phases. An array of assets and human resources in different combinations to get the job done. Mix is hard for offthe-shelf solutions, because they are built to serve the masses.

Is your business growing rapidly?

You can't scale inefficient processes. It's important to get a handle on unwieldy processes before it causes problems in your business. The earlier you put custom software and integrations in place, the better prepared you'll be when new opportunities come your way.

If you answered "yes" to any of the above questions, custom software may be a solution.

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How To Get Everyone On Board?

While it's critical to get input and buy-in from key people within the organization, it's not always easy. Egos, turf wars and competition for funding can get in the way. Fortunately, you can learn from those who have already traveled the path to digitalization.

Suggested Best Practices

Clearly communicate the scope of the project: Everyone has heard the old saying that the only way to eat an elephant is one bite at a time. You'll probably be approached by people throughout the organization who want to talk about why their department needs custom software. And though they may even be right, you can't solve all of the organization's problems at once. Custom software development works best when it's an iterative process. It keeps costs under control, it minimizes organizational disruption, and, most importantly, it allows you to capitalize on lessons learned along the way.

The best way to handle change management is to be crystal clear about which processes you're tackling first and why. You can then invite employees to submit ideas for how custom software could improve their part of the business, generating ideas for the next rollout. Importantly, it allows you to capitalize on lessons learned along the way.

Observe how work is really done: Employees tend to find workarounds for inefficient, cumbersome processes. The real workflow could be very different from the documented process (if there is one). It's essential to observe how employees complete tasks and why they do them that way. You don't want to automate a process employees abandoned three years ago.

Be open and responsive to input: While it's impossible to include every suggestion or request, do take the time to acknowledge them. If a suggestion makes sense but isn't enough of a business priority to make it part of the custom software, tell the person you'll put it on the list of possible integrations. You can always add some surprises from the "wish list" and over deliver at the end of the project with a few "bells and whistles" if your budget allows for it.

To have a successful custom software development process, it's critical to get input from stakeholders within the organization. And, once you've gained buy-in, it's important to sustain it. Look for a partner who will set regular milestones to meet with you and show you how your vision is becoming a reality.

What Should My Project Include?

After you get input from all of your stakeholders, the next step is to identify your priorities. Remember that this is an iterative process. You don't have to do everything at once; in fact, you'll learn with each rollout and can apply that knowledge to the next phase.

Start with the features that will deliver the quickest, biggest return. Here are some questions to discuss with your team:

Where can we get some quick wins? These are features that people will happily adopt (because it makes their jobs easier) and will deliver a good ROI.

When it comes to developing custom software, the goal for small and mid-sized businesses shouldn't be to revolutionize everything at once. Instead, focus your innovative energy on creating functionality and choosing the processes that waste time, cause you to miss opportunities, and keep you from catching up with your competitors.

Often the biggest hurdle for growth and change is simply starting. To achieve momentum, successful software projects start with a clear and achievable scope and create the foundation for future wins.

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Which processes are working well?

If a process is working well, you may decide to leave it alone, both to save money and to avoid any unnecessary business disruptions. Instead, consider integrations that could maintain "business as usual" while still meeting your other objectives.

Which processes are completely broken?

You'll discover some processes that no longer make sense. Maybe it has been done the same way for 20 years. Or maybe the person who designed the company process left years ago, and employees have been creating incremental workarounds ever since.

There's no point in creating automation for a broken process. Instead, meet with the people who perform that particular process and crate a workflow that makes sense.

Who Can Help?

Developing custom software is a big investment of both time and money, so it's vital to choose the right partner. This might be the hardest part of the project, simply because you've never had to hire a team partner that will be so intimately involved with your business strategy and evolution before.

Keep in mind that most strong partnerships have these nine things in common:

They have a business mindset:

It won't matter how good their IT skills are if they don't understand what you want your software to do and why it's important to your business strategy. Consider it a big red flag if they have trouble following a conversation using standard business terminology.

They have a strong portfolio of similar projects:

In addition to the fundamental questions (Was it delivered on time? Did it come in on or under budget?), get them to walk you through the process they used. What did they enjoy? What did they find frustrating? What didn't go as planned, and how did they resolve the issue?

Finally, ask your desired partner if you can call companies they've worked with for references. Any reputable developer should be glad to put you in touch with a happy client.

Their processes fit your business needs:

Any custom software development company that follows the same rigid protocol with every client isn't a true partner. Look for a development team that's willing to collaborate with you on both process and timeline.

They want to get "in" your business:

A good development team won't just take your plans and run with them. They know where their clients' blind spots are. And a good development team will insist on spending some feet-onthe-ground time at your organization — not just with executives. They'll want to spend some time with the front-line employees performing their daily activities.

They check in with you at critical points in the process to make sure the project is on track:

From the wireframe presentation to the architecture and database design, each stage requires a partner who will check in with you frequently so that either side can catch any misunderstandings before the project wanders too far off track.

Don't go anywhere until you've defined your goals!

They're able to develop custom integrations, apps and dashboards so that all parts of your solution work together smoothly:

Whether you're pulling information in from a legacy system or trying to get different systems to talk to each other after a merger, it's important to choose a custom software development company that can integrate the various bits and pieces in a way that's seamless to you and your customers.

They have a diverse team:

You need a partner with skilled developers, but that's not enough. You need a partner whose team includes other skills too. For example, a partner who brings business acumen to the table will understand why you need certain features and can help you make sure those features meet your goals. If you want to design features that help you maximize sales opportunities without violating privacy standards, you need a partner whose team includes people with both marketing as well as legal and/or risk management knowledge.

They're squeaky clean:

The development team you choose will certainly have access to your company's intellectual property, and they may also have access to sensitive customer information or payment data. At the very least, they should meet <u>PCI-DSS compliance</u>, and depending on your industry, they may need to meet additional regulatory requirements. So it's important to discuss this one with your legal counsel before signing any contracts.

They continue to provide support after the project is "finished":

Whether it's fixing bugs (some are unavoidable) or adding new features as your business grows, you want a partner who will be there with you for the long term.

> Custom software should serve your company for many years, and it should change and grow as you do. Maybe you'll expand into new territories, or perhaps you'll buy another company that brings new product lines to your portfolio. One of the most important factors in choosing a partner is their potential to stick with you for the long haul.

How Do We Launch It?

Successful rollouts require intention. Develop purposeful communication with your team about the vision the custom software will achieve and provide continual onboarding support for each employee. Botching a rollout can cost a company substantially and can also impact their customers. That's why it's so important to know your game plan. Define each stage of the rollout meticulously and stick with it regardless of other business issues that demand time and resources. For instance, executive turnover, mergers and acquisitions, or new business initiatives can draw attention away from custom software rollouts if the plan is not carefully followed.

A successful rollout requires a joint commitment between your team and the development partner you've chosen. Follow these guidelines to realize the full potential of your new software:

Consider the following:

As with most things in business, strategic timing considerations can make or break an initiative. Software rollout is no different. For instance, you would likely avoid a rollout of custom accounting software at the end of the fiscal year. All rollouts will cause some amount of disruption, so evaluate times when certain functional teams are under extra pressure and be sensitive to their workflows.

Get in the trenches:

No one should have to go at this alone. It's important to have people on the floor (your IT employees, team leaders, your software development team, etc.) helping employees learn to use software, making a list of any bugs that need to be fixed, and attempting to mitigate any larger problems. One of the most beneficial things about iterative rollouts is building on the things you learn from each one, so it's important to have rollout leaders talking to employees and taking notes as they learn.

After each rollout, you should have a summary of the things you learned that should be incorporated in the next rollout.

Reinforce the "why" of the rollout:

Even employees who begged for an app or integration to make their jobs easier still have work to do. A transition to a new system or feature means that their normal work routine will see some disruption.

Offset that by reminding employees of the purpose of the software, and let them know that the company is aware that the rollout will take some time. Keeping teams focused on the ultimate benefit and timesaver at the end of the process can encourage participation. Simply opening up discussion about the amount of time it will take can alleviate worries of falling behind while they learn to use the new software.



Expect to troubleshoot:

Even the most carefully planned rollout can result in unexpected problems, especially when you consider that any time you introduce a human element into the equation, things can go wrong. A good rollout plan always forecasts potential trouble spots and plans training with those areas in mind so that problems are mitigated.

Expect a few 'a-ha' moments:

Although there was a thorough planning process with the individuals involved since the beginning of the project; during a rollout you may unexpectedly come across a feature or two that needs to be tweaked. Planning for the unexpected is important especially if you have a large team that will be using the software. When budgeting for your project, be sure to include a 'contingency budget' to be sure you can address these 'a-ha' moments that come up. This will ensure an 'a-ha' moment does not become a roadblock to you reaching the finish line.

Celebrate the launch and keep the momentum!

Take a moment to reflect with your team on where you were before you started this process. Share any data and stories you have about efficiency gained, improved customer experiences, and a more happy workforce. Then, it's time to look toward your next opportunities.

In this phase, apply what you learned during the rollout. Once things are running smoothly, it's time to leverage your core features and baseline data. This is often where new "quick wins" for the business reveal themselves from daily use. Plan on hearing your team start peppering you with "What if we..." ideas for added automation, reporting, or other functions.

Here are some questions to discuss with your team during this exciting phase:

- What's likely to change in our industry, and how can we prepare for that? 4 those changes so that you can be proactive instead of reactive?
- What are our organization's plans for the future? make these changes integrate seamlessly with your existing workflows?

One of the most valuable things about custom software is that it can continue to be tweaked and changed to accommodate integrations long after initial rollout.

Technology is leaving few industries untouched. Ask your employees to describe what's changing in the industry, and if those changes are disruptive. How can custom software help you prepare for

Do you plan to enter new markets? Offer new product lines? How can you use custom software to

Budgeting for Continuous Improvement:

Just like any other valuable asset (home, building, equipment), custom software is an asset that requires regular attention and maintenance over time. Many companies retain their development partner for additional time each month to allow for a proactive Phase 2 (and beyond) effort that continuously improves their solution.

Continuous Improvement allows effort within your allocated budget to add features and make enhancements beyond the standard maintenance. This budget empowers your front-line product owners to approve small improvements rather than going through an entire PO or approval process every instance.

By securing availability from the development partner to proactively add business value to your solution, leaders create even more buy-in from employees because they are able to quickly use the improvements in their daily work without having to wait weeks or months.



Keep in mind that every rollout will be as successful as you plan for it to be. A few bumps in the road are to be expected, but the realization of your long-term vision is worth the journey!

Custom software development that's just right

Today's business environment is becoming increasingly complex, and it shows no signs of stopping. For example, it's predicted that by 2025 there will be 64 billion IoT devices in the world, each of them sending data that needs to be collected, stored, processed, analyzed and secured. Custom software will become a major differentiator, allowing organizations to reduce risks and maximize opportunities in real time.

From developing behind-the-scenes automation to mobile apps and personalized dashboards, SPARK works with our clients to thoroughly understand their business needs and turn their problems into tools they're eager to brag about.

Do you have a vision of a digital solution built from the ground up with your business in mind?

Contact us today to see how we can turn your vision into reality.

LET'S DISCUSS YOUR IDEA



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Client Success Stories

Who: Esper Electric

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Bierric Electric

Industry: Construction

What we did: Created a digital workforce management tool

What they had to say: "Our new app has been created to streamline data entry, track tech certifications, communicate real-time accrual balances, push compliance updates and much more."

Who: Andy J Egan Co.

Industry: Mechanical Contractor

What we did: Created an automated scheduling workflow asset that is also now sold and whitelabeled to other companies

What they had to say: "We needed mobile-friendly time entry and compliance checks to manage job assignments for a distributed workforce of 300+. We were sick of paying an annual subscription fee for an off the shelf program that almost worked."

Who: Sturgis Molded Products

Industry: Manufacturing

What we did: Created a digital critical alert response system for the manufacturing floor

What they had to say: "SPARK's efforts definitely make our operators' and managers' lives more enjoyable while saving precious time."

Who: Found and Sons Funeral Chapels and Cremation Services Industry: Professional Services

What we did: Created a custom website and eCommerce solution

What they had to say: "SPARK took the time to really understand my vision and put that vision into an actual, viable process. Plus, their friendliness, combined with their technical know-how, has made the process an enjoyable venture that's not only profitable but educational."

SPARK created a custom solution that worked exactly the way we needed it to in a cost-effective way. Amy Jones, Vice President at Andy J. Egan Company

Jounch Your Digital Revolution

dozens of industries.

systematic way.





Catch up, pull ahead – Leverage the SPARK process to solve your problem. We've launched hundreds of solutions used by millions of people across

Make a lasting difference – Grow strategically with SPARK's full suite of services that build your digital foundation and scale your impact in a



Build a custom business tool you will be *ptoud* of.

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