

Software Project Assessment Guide:

The Key to Improving Your Software Development Process

```
function  
: 1  
ex(active)  
delta) % this.$i  
index)  
to = function (pos) {  
= this  
index = this.getItemIndex(this.$activ  
pos > (this.$items.length - 1) || pos < 0)  
if (this.sliding)  
if (activeIndex == pos) return this.$element.or  
return this.slide(pos > activeIndex ? 'next' :  
}  
Carousel.prototype.pause = function (e) {  
|| (this.paused = true)  
.$element.find('.next, .prev').length &  
ment.trigger($.support.transition.en  
(true)
```

If you have any questions
contact us at sales@troyweb



Introduction

A new software project can make or break your business and not knowing exactly what it takes to complete that project will put your company at risk. An assessment of your software development process helps to evaluate the project to determine whether or not it is profitable or beneficial to the company before you start development. A proper project assessment helps you

and your team better understand the scope, risks, and other aspects of the project that may have gone unnoticed.

At Troy Web Consulting, a project assessment is part of every software development project to ensure a successful, quality product. Do the same on your next software project using our step-by-step project assessment.



{ Step 1: Goals and Objectives



Often, software developers don't think beyond the objectives of the software being developed. The starting point is assuring you have a clear understanding of the business objectives. What is the company trying to accomplish with this new software? Are you trying to improve efficiency and reduce costs? Are you trying to offer a better customer experience? Was this project brought on by an update to your current software stack? Maybe you have a new idea that you're passionate about but you aren't quite sure how to put it in motion.

Knowing your goals and objectives help to lead the way when it comes to keeping your project on track. Confer with the full team - which can go beyond the IT department to include marketing, operations, sales, etc. Commit to clear goals and objectives including how you will measure success. And refer back to your goals to be sure you are staying true to the overall objectives. Your goals will keep you aligned, but there is still more to consider before jumping into a software development project. You must know exactly what it will take to reach those goals.

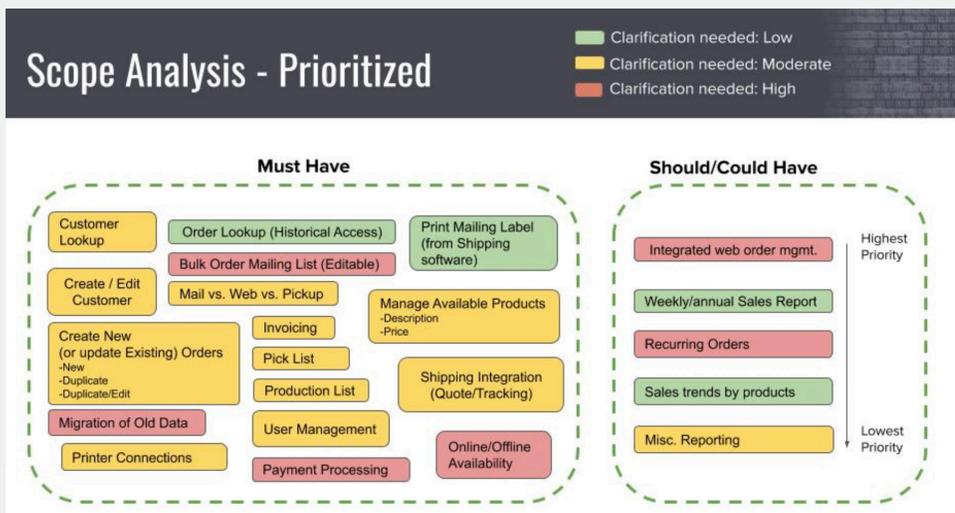
Step 2: Project Scope

The project scope is the part of the assessment that identifies and documents concepts, features, processes, workflows, deliverables, tasks, dependencies and other aspects of the project. With this, you can define priorities,

(what is on and what is out of scope), how systems will work, internal and external roles and responsibilities as well as clarify success factors. There are multiple parts that come together to determine the project scope.

Scope Analysis

Let's start with a scope analysis. Now that you know what you want to accomplish with the software development project you must identify the key features you'd like to include and the levels of clarification needed for each. For features that need a lot of clarification, it will be important to do some analysis and design before diving into development. At Troy Web Consulting, we create a visual representation of the feature set color-coded by the clarification needed in order to get a general idea of how much analysis and design is required. We also assist in identifying the high-level features that are critical to the success of the project. Knowing which features impact success really helps when it comes time to prioritize.

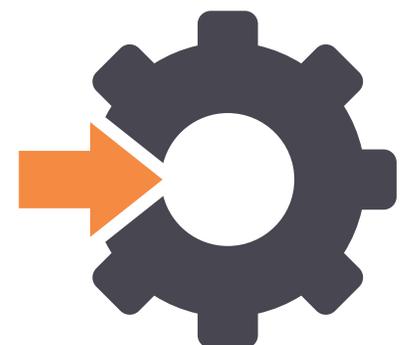


Does one of your features require a specific workflow? Are there conditions under which the workflow makes a right turn versus a left turn? Even at a high level, defining the workflows in your feature set helps with identifying areas of complexity and potential risk.

After you've identified the features, the needed design effort, and the core workflows of your system, prioritize them to ensure the most important items are focused on first.

External Resources and Dependencies

The second part of determining the projects' scope (that few people remember to take into account) is the external resources and dependencies that appear. Are there 3rd party vendors (integrations) that you will need to rely on for the project to be successful? What if these partners become unreliable or unavailable? Identify any dependencies and integrations early on to make sure that you're ready to mitigate any risks 3rd parties may pose.

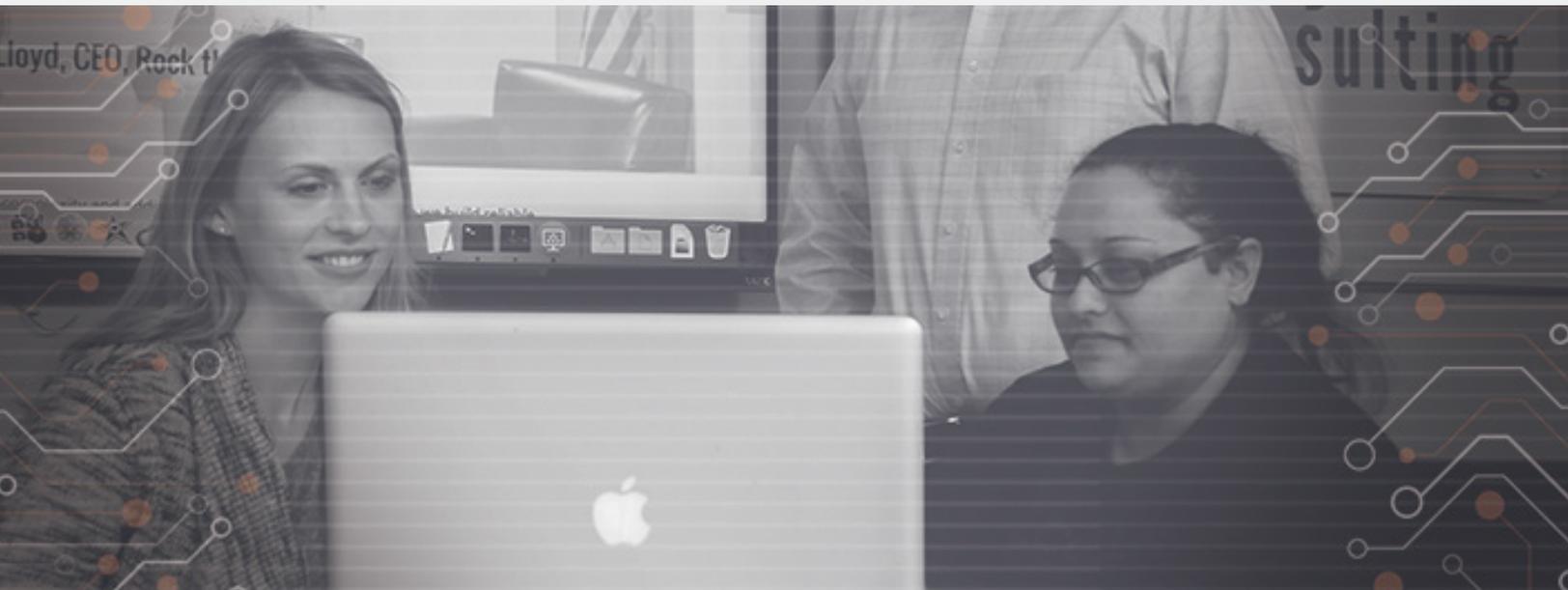


Stakeholder Analysis



You're now getting closer to confirming the projects' scope and how much effort everything will take. With this, you can start thinking about stakeholder roles and responsibilities. An understanding of the projected landscape of the system and how users will exist within it is important to nail down early on.

Identify the roles of the stakeholders in your project, and their day to day uses of the software. Will your project have basic users and admins? Is there more than one type of administrative role? Do they have different privileges? When assessing the project, it's okay if the privileges aren't completely fleshed out, that can often be done more thoroughly during a design and analysis phase, however it is critical to identify all the possible roles in the system, and like scope prioritization, it's not a bad idea to know which roles are critical and which ones may be treated as "nice to have."



Critical Success Factors and KPIs

With your goals and scope in order, how will you determine key indicators of success? Identify some reasonable benchmarks by which to measure the project's success. For example, the amount of time saved by adding automation to your process or the target rate of user retention after 3 months.

The project scope is part of the planning process of any project. You need to know how your scope will impact the schedule of your project and how or if it satisfies your goals and objectives. Now that these factors are being identified, it's time to start thinking about how you're going to manage your resources and the overall project development.



{ Step 3: Project Management

Your project management team will help with initiating, planning, mitigating, and executing the work to achieve the goals and objectives you've outlined. They are responsible for achieving this within the given constraints you've uncovered in the previous step.

Roles and Expectations

It is key to not only know who is involved in the project but also the level of authority and the expectations of each person involved. It helps the team react more quickly and effectively when everyone is on the same page and share expectations. Identify these roles and their level of access and involvement throughout the project for a smooth development phase.

Readiness Assessment

Now that you know who will be doing what (In theory) can you confidently say that you're ready to start the development? Even though the lion share of preparing for your project is covered when exploring goals, stakeholders, and scope, it always helps to take a step back and look at the big picture. Consider these five items to help decide whether or not you're ready to move forward with your project:



- 1) Strategy:** Do you know EXACTLY what you want? Do you have any doubts about what your goals are with the new system? Is there a roadmap in place with milestones? What happens after the first round of successful work?
- 2) Availability:** When is everyone available to work on this project? What are the meeting times that work for everyone? Another thing to note is how people prefer to be communicated with. If a personal phone call is better than an email, take note of that.
- 3) Technical:** Who is the technical lead on the project and are they capable? The more technical insights on the team, the more likely for it to spot issues that may arise as the project moves forward. If you do not have the technical capacity for the project, consider hiring an outside firm or reviewing the technical requirements for the project before moving forward.
- 4) Processes:** Can you properly identify weaknesses in your process? If so, what are they and have you considered implementing solutions to fix them?
- 5) Identity:** Do you fully understand the brand and culture of the company? This will help you to demonstrate that in the project development process.

Risks and Constraints

Congratulations! At this point, you have determined that this is a project that you and your team are ready to tackle. Still, you need to know or at least have an idea of what can possibly go wrong before any code is written.

Identify a list of known risks to the project, their likelihood and impact, and strategies for mitigating those risks. These might include risks such as

insufficient funding, scope creep, technology changes or a 3rd party vendor being based in a different country creating communications difficulties. As new risks are identified, update the matrix to ensure you stay on top of each risk facing your project. Here's one way Troy Web Consulting visualizes risk:

Risk	Likelihood	Impact	Mitigation
Disruption to order taking	Low	High	Ensure new system/configuration is working by testing alongside existing system for a period of time.
Data migration troubles	Unknown	High	Explore current data formats, and understand what if any limitations there are, and prepare contingencies. Consult data partners to understand current data format and thoughts on proper migration.
User/Employee training issues	Low	High	Design an easy-to-use/intuitive system that ideally doesn't require a manual, and can be learned with minimal training.
Dependencies on external resources	Unknown	High	Fully understand what integrations are necessary and whether they're possible technically. Develop contingencies where presumed integrations cannot occur, or are more difficult than expected.
E-Commerce integration troubles	Low	Medium	Explore ways to integrate the e-commerce channel with the order management system, to streamline multi-channel order processing.

Project Approach

Once you have an understanding of the scope of the project and the key players involved, think about how to actually manage the project. There are a number of management styles to consider, so pick an approach based on what you know about the specifics of your project. Two approaches at opposite ends of the spectrum are "Predictive" and "Adaptive".



Predictive:

Most similar to the "waterfall" approach, a predictive model focuses on minimizing upfront uncertainty, and ensuring that the solution is clearly defined before implementation begins. This maximizes control over implementation and minimizes overall risk. This approach is often preferred in situations where requirements can be effectively defined ahead of time, the risk of poor implementation is unacceptably high, or when engaging with stakeholders is significantly challenging. A predictive model comes at the cost of time and budget. There is some loss in short term efficiency as project activities are addressed in a more linear fashion, but it is the nature of this linear process that reduces overall risk.

Adaptive:

Most similar to an "agile" approach, an adaptive model focuses on rapid delivery of value in short iterations. This agility is afforded in return for acceptance of a higher degree of uncertainty, or a reduction to the scope of the earliest releases. This approach is typically preferred when the aim is to explore options for the best solution, or when the desire is to incrementally improve an existing solution.

{ Step 4: Assessment Deliverable

A proper project assessment can save you thousands of dollars and make the development process easier for your team. Doing a proper software project assessment will help the team move forward with more confidence and assurance that the project will be a success.

The final deliverable is a document that you can present to the entire team. The team will use this document to vet any issues or challenges as well as to confirm budgets and timelines required for the software development project. The document will assure:

- Goals and objectives are accurate
- Scope is clear
- Features are prioritized workflows and processes are visualized
- Future considerations are noted
- Internal and external resources are understood
- User roles are specified
- Critical success factors are measurable
- Risks and readiness are defined and mitigation is achievable
- Project management approach is agreed upon

Need Help with Your Software Development Project Assessment?

If you are having trouble doing a software project assessment or getting a software development project off the ground, Troy Web Consulting can help. Troy Web offers project assessments that help save time and money. Let us put our experience to work by helping you better understand the scope of your next software project and set expectations for a realistic timeline and budget.

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