



**Project Management
White Paper Series**

What does done look like?

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What does "done" look like?

by Keith Fournier

Introduction

A project, by its very definition, is intended to be a one-time and unique endeavor that produces predefined deliverables as stated in the project scope. Some projects never seem to end. Is it because "done" was never clearly defined? Why does this seem to happen so often? The cause is not necessarily due to bad intentions or poor project management. It has to do with the project team's ability to achieve project expectations. How does an organization properly document expectations? By collecting detailed project requirements, defining project scope and developing a project plan to deliver a system to meet those expectations.

How often do projects start without proper requirement gathering, project planning, scope identification or even a detailed budget? More than anyone wants to admit. It is often difficult to get sufficient resources to accomplish suitable project requirements gathering and planning. These tasks can be seen as inaction or spending money that can be used to do the "real work." Planning is very important to any project. Imagine building a house without detailed plans: including owner requirements, comprehensive cost estimates and a construction timeline. No prudent person would do so, yet it commonly happens in IT projects? Perhaps because people do not take true ownership, after all, "it's not our money." While this view may seem harsh, therein lays an element of truth.

Project Planning

Project planning can be facilitated by using planning templates. Utilizing templates is an essential tool in guiding the project team. A common perception is that preparing planning documents delays the "start" of a

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project. Most believe a project starts after the system has been purchased and the implementation commences. Why? This is when most of the project activity can be seen. The real beginning of a project starts much earlier. It often begins during the development of strategic and capital budget plans,

months or years before buying the first server or writing the first line of code. Comprehensive project planning enables the development of various project documents, such as project scope and project charter, in addition to time and cost estimates. These project documents identify who are the stakeholders, project purpose, business and functionality requirements, scope of the activities, approach to complete activities, and resource estimates. The creation of these documents is not fun. It takes time and costs money.

Once project planning and scope documents are completed, a project can proceed. An obvious goal is to have the project completed as originally planned. However, that is usually not the case. If changes are to be done, it is better early in the project life cycle and not later. Changes to the project scope can be costly. These costs will exponentially increase as the project progresses and changes are made. Robert Pressman from IBM postulates in his 2001 book entitled [Software Engineering: A Practitioner's Approach](#) that, for "every \$1 spent to resolve a problem during design, \$10 would be spent on the same problem during development, and multiply to \$100 or more if the problem had to be solved after the production release." The 1-10-100 rule is a concept that can be used to gain funding for project planning. Proper planning can also be considered a project insurance policy that can increase customer satisfaction and reduce the system's Total Cost of Ownership (TCO).

Savvy project managers will protect themselves, project sponsors and project team members from unwanted scrutiny because of the existence of comprehensive planning documents. These planning documents communicate to the project sponsor and steering committee all known assumptions and expectations in written form. Without documented project scope and requirements, the project may never be considered successful because of incremental changes during the development of the system.

Project Scope

Scope of the project has been defined in many ways. The Guide to the Project Management Body of Knowledge (PMBOK) written by the Project Management Institute defines project scope as "the work that must be done to deliver a product with the specific features and functions." Therefore, features and functions contained in the project requirements are essential in developing the scope of the project. As mentioned, if the stakeholders don't know exactly what they want, it will be very difficult to estimate the costs

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and have confidence to deliver the expected functionality.

Process Analysis

Some organizations want a GIS because others have one. That's good motivation. What makes them want "that other GIS?" For a GIS or any IT system to be successful, it has to be integrated into the daily workflow of the organization. The most important aspect should be the maintenance of the data. New system investments must be perceived as a benefit to the users or it will be underutilized. Therefore, a critical step is needed to enable the integration of a new system into the daily functions of a department. A process analysis must be performed to understand current workflow. Performing a workflow process analysis is the precursor to defining requirements. On small project, the project manager typically performs all tasks in the project life cycle including gathering requirements. In large projects, business analysts gather the requirements through business process analyses. The stages of business analyses include documenting current processes (as-is), group visioning to improve processes, and develop new process models (to-be). The new process models are then used to facilitate the requirements gathering of a new system. Once the new application is selected, a fit-gap analysis must be performed to determine the cost of customizations to meet the requirements.

Requirements Analysis

Requirements gathering may be the most important element to a successful project. The CHAOS Report from The Standish Group in 1995 reported that 44.7% of project failure is due to incomplete requirements and scope management activities. Requirements are the critical component to effectively manage project scope. It must be included in the development life cycle of any new application or project. Comprehensive requirements gathering will surely increase the potential for success.

A cost estimate of a system is dependent on a final and detailed list of project requirements. Before project planning commences the project stakeholders should agree upon these requirements. Detailed requirements are also utilized in the development of Request For Proposal (RFP) documents if external resources are necessary to complete the project. The requirements list also enables an objective evaluation of proposals submitted. Furthermore, the project owner and vendor may use these requirements to manage the project deliverables. Proper requirements gathering should be instituted for every project, even small projects. This allows for the psychological change or a paradigm shift

to occur in an organization. When requirements gathering are done with all small projects, it will become standard operation procedure when large projects are pursued.

Project Failure

According to The Standish Group, which tracks IT project success rates, only 29 percent of IT projects conducted in 2004 were completed successfully. Why do IT projects often have such a problem succeeding? Insufficient resources may be another problem. Resource constraints interfere with all projects. The triple constraint is the balance between time, cost and quality/functionality. It is often erroneously said that you can have two of the three, but you can not have all three at once. Managing project constraints and stakeholder expectations is the duty of the project manager. Adhering to the scope of the project and saying no to keep projects on track is the best way to succeed. A Change Control Board (CCB) is a good tool to successfully reduce scope creep.

Change Management

Change management is a methodology to minimize changes in the scope of the project. Its goal is to adhere to the original scope and cost of the project as much as possible. The Change Control Board (CCB) is a group of project stakeholders that can assist the project manager in keeping a project on track. A project management rule is "to disappoint early and disappoint often." The disappointment comes from stakeholders constantly wanting additional features and functionality that is beyond the scope of the project.

The key to successful
scope management is
to "disappoint early
and disappoint often."

If a scope change is requested, refer it to the change control board (CCB). Their job is to say "no". If the change is absolutely necessary, the change or customization should be documented to include impact to project schedule, and cost to future operations, such as upgrades. Then the project sponsor should make the final decision based on the recommendation of the CCB. It is hard to tell your clients "no" but it can be the difference between making the client happy during the project and having an unhappy client at the end, when completion is over budget and delivered beyond the scheduled completion date.

Completion Anxiety

The completion anxiety can also be a barrier to finishing projects. Projects are supposed to be temporary. But the project team members still have to pay their house mortgages and car payments at its conclusion. What could happen, both overtly and covertly, to the motivation of team members if there is not a known strategy to "roll them off" the project when completed? Money is a powerful motivator. If the team, especially consultants, observes that project budgets can be easily be increased, what is their motivation to minimize changes and customizations and complete the project?

During the development of the project plan, each member of the team should have project completion goals. The timing for "out-placement" to other projects as their roles complete should also be established. The schedules and plans for the outplacement should be reviewed at regular intervals throughout the project. This will encourage team members to complete their portion of the project without fear of being laid-off or put in a position that isn't desirable. Otherwise people have nothing to do but perpetuate the current project.

Adhering to project plan's budget and schedule with little or no changes takes discipline. The project manager must be constantly diligent to control their project budget. The short-term effect of prolonging the project may be reduced stress. However, the long-term benefits of staying within scope and budget are increased credibility with project sponsors, higher potential for initiating more projects and obtaining future project funding should become easier.

Many IT projects have a tendency to fail by being over budget and delivered beyond expected completion date. This fact is the major reasons for resistance to initiating and funding projects. Future projects will be easier to get support if you and your team get a reputation for delivering valuable solutions on-time and on-budget.

Conclusion

Unsuccessful projects occur because many of the deliverables are non-tangible. Users don't fully comprehend the cascading impacts even seemingly simple changes cause in system configuration. Therefore, if requirements are documented and the scope of the project is clearly defined, the probability of a successful on-time and on-budget project greatly increases. The following are some guidelines that can be used in your next project to minimize scope creep:

- 1) start now to gather requirements and use planning templates on every project, no matter what the size of the project,
- 2) secure funding to do proper project planning,
- 3) develop project planning documents,
- 4) create Change Control Board (CCB) to manage system configuration,
- 5) be prepared to "disappoint early and disappoint often,"
- 6) get written approval from project stakeholders and project sponsor for any change in scope resulting in increased cost or delayed completion,
- 7) maintain list of any customizations or changes to original configuration,
- 8) move as many change requests to a subsequent phase after the original project scope is complete,
- 9) keep project sponsors and steering committee informed, and
- 10) start developing a plan for the placement of team members at the beginning of the project.

What does "done" look like? Requirements must be documented in detail prior to the commencement of the project to answer that question. Project scope and system configuration must be controlled from the first day and diligently managed. This stance will create enemies, but if you want everyone like you...don't become a project manager. When a GIS or IT project is properly managed, the long-term benefits and appreciation for the project manager's actions will become evident. Therefore, to obtain highest likelihood of success for the completion of a project on-time, on-budget and meeting expectations is having written project requirement and having an experienced project manager using best practice methodologies to manage project scope.



About the Author

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