

Project Management – Simple Answers to Simple Questions

Originally I wrote this for one of my clients in 1991. The idea was to develop a brochure to promote project management in one of the client's departments. Today, project management is well established in the organization, but the answers to the questions are just as valid.

R. Max Wideman

01 What is a project?

- A. The term project seems to be a buzzword that means a lot of different things to different people. Anything, for example, from a secretary's "project" to clean out an old filing cabinet to an engineer's "project" to create a multi-million dollar facility. Even these extremes have one thing in common: the application of work or effort to create a new situation or product, where "product" is used in its broadest sense. So a project can be any undertaking with a definite starting point and one or more defined objectives the completion of which spell out the end of the project. It should be added that for one reason or another most projects are restricted by limits imposed on resources (effort, equipment and materials) time and money.

02 Why do I need project management?

- A. Another way of asking this question is "What if I don't bother with project management?" The fact is, all projects demand some degree of attention to make them happen. Even the secretary needs to deliberately plan to set aside some time to clean out that filing cabinet, otherwise the job will never get done! Believe it or not exactly the same holds true no matter what the size of the project. Indeed, the bigger the project the more difficult it is to get it started.

But most projects also require some degree of coordination of resources, and unless this is carefully planned either things will be done in the wrong order or there will be constant conflict and crisis. All of which will ultimately consume a lot more resources, time and money than necessary.

03 Why do projects need planning?

- A. A fundamental of managing projects is first to plan and then to accomplish. Of course, good project management is a lot more complex as we shall see shortly. In the simplest of terms, if you do not know where you are going you neither know how to get there nor even when you have arrived!. Moreover, it doesn't really matter which road you take nor how long it takes to get there.

So a good project plan is like a route map – the destination is clearly spelled out and the best way to get there is chosen before starting.

04 What level of project management do I need?

- A. This is a difficult question to answer because it very much depends on the size, duration and technical complexity of the project, as well as how many people are involved. Some projects have been successfully run by a project manager "keeping it all in his head". That may be fine, but when

the project manager falls sick so does the project! If you are managing a project for someone else (your client) then at a very minimum you should plan on ways and means to track the definition of the client's requirements and/or assumptions made, the standard of quality agreed upon that will serve the client's purpose, the time available for completion, and the budget for the work.

As projects increase in size and complexity, increasingly sophisticated systems and procedures are available to track each of these core functions. On even larger projects it may well be necessary to have trained and dedicated staff attending to each function separately.

05 If I am empowered, why do I need project management?

- A. If you have been empowered it probably (or should) mean that you have been given the authority and responsibility to undertake the work necessary without constant surveillance and supervisory intervention. It should also mean that you have been given a coherent and articulated vision of the thing to be achieved and, subject to appropriate reporting (accountability), you are left to get on with the job. If you are the only person involved in the work then all you have to worry about is your own time and resources required to accomplish the task at hand. To do a job well, even that takes personal training and mental discipline.

As soon as others are involved, they are entitled to the same consideration and to share the empowerment process. It means building a committed and coordinated team environment, which is one of the key elements of good project management — successfully managing and coordinating human resources.

The manager who believes that it is their prerogative alone to organize, direct and control the entire project is doomed to poor results. Empowered people work more enthusiastically, respond faster, take a pride in their work and the results show up in the timeliness and quality of the product.

On the other side of the coin, your own empowerment means nothing if those from whom you will need support for the project have not been properly informed, especially in a matrix type of environment as most organizations really are. So check it out. If anyone is not aware of your new authority and responsibility, go back and ask for the situation to be clarified.

06 Is that all there is to project management?

- A. That is by no means all. There are many aspects to good project management that require attention. In summary these may be identified as the management of scope, quality, time cost, risk, human resources, contract/procurement and communications.

Each of these eight functional areas, as they are called, will require careful integration. In addition, a successful project is not only one which meets its objectives on paper but is also seen to be successful. In other words it satisfies the customers. The eight functions together with the considerations of integration and stakeholder satisfaction are the ten attributes of effective project management.

07 If I only have a small project, do I really need to bother with all of that?

- A. In any project of any size, each of these ten attributes requires some degree of attention. However, the extent of that attention will vary according to the nature and content of the project in question. If you want to reap the satisfaction and recognition of the successful project manager, consider them all! So let's look at each in turn.

08 How important are the stakeholders?

- A. The most important stakeholder, of course, is your client or customer. However, that may be more than one person — the sponsor and the user, for example. But there can also be many other stakeholders as in the case of environmentally sensitive or publicly exposed projects. Such situations require special management attention. Even in a simple project, such as introducing an administrative change, there will likely be people who are indirectly affected and who should be considered.

09 How do I get started?

- A. At one and the same time this step is perhaps the most important and least understood of all the steps in the project management process. Whole books have been written on this topic alone, yet there are a few basic guidelines which are helpful:
1. Make sure you know who is your primary client, to whom you will be reporting on project progress, and from whom you will be receiving direction as the project process evolves.
 2. Make sure that you understand your client's goals and objectives and that you will be able to document them in increasing detail as part of developing a project plan which you will eventually be able to execute.
 3. Make sure you understand the context of the project — Why is it being done? Why now? What are the implications and consequently the risks that will be faced? Do the delivery date and budget look realistic? What are the tangible and intangible benefits? Does it look like the project is worth doing at all? In short, will it be successful?
 4. Document all of this and, together with any assumptions that you may have to make, obtain your client's concurrence. You may well be faced with some hard negotiating to do, but in the end you will have an initiation document which, once approved by the appropriate funding authority, will be your project mandate to proceed and give you the best chance for success.

With this out of the way, you are now off and running and the next steps will be to build a project team, develop a project plan and identify the additional information and resources required for the project.

10 What is a successful project?

- A. Since every project has an element of newness about it there will be risks and difficulties to be surmounted. These require decisions and possibly trade-offs between competing project objectives such as cost and time, but in the last analysis, the successful project is one which satisfies the client and the stakeholders, and is seen to do so in its most important dimension, quality. Quality is defined as conformance to requirements.

11 How do I get my project organized?

- A. Every project that involves more than one person requires a project team to get the work done. Without doubt, building a motivated project team will be your primary and most critical task, because the success of the project will rely heavily on choosing the right team members and gaining their commitment to the project's objectives. If possible, assembling the project team and dividing the project's scope into manageable pieces (developing a work breakdown structure) should go hand in hand. In this way, help and ideas are obtained in developing the project plan and, as the skills required to execute the project plan become apparent, so can additional people resources be identified and recruited as necessary.

Politically, it will be prudent to utilize the abilities of permanently assigned staff to fulfil these requirements but if there are required skills that are not available, then other sources must be identified and pursued. Many texts have been written on identifying suitable team members, securing their commitment and maintaining their motivation, subjects which are beyond the scope of this presentation. Nevertheless, this part of a project manager's job is probably the most time consuming and, as stated earlier, the most critical. It may also be the most difficult and makes the difference between the effective and the ineffective manager. Remember, projects are built by people!

12 What is a project plan and what does it involve?

- A. A well integrated project plan is the primary tool for effective coordination of the work and for tracking and steering progress by appropriate initiatives. It's the key document as a basis of reference. It's like a project bible and is sometimes called the project brief. A project brief may also be required to obtain other approvals such as client commitment to the details, and funding to proceed into subsequent phases of the project-life-cycle.

A good project brief will set out the goals, objectives and scope of the project (its deliverables), how these are to be achieved (technical content), quality (technical standards), any supplementary approvals that may be required (regulatory), design outlines (sketches and block diagrams), the component parts (breakdown structure), who will be responsible for what (team responsibilities), sequence and timing (logic network and schedule), required budget (supporting cost estimate), resources required for implementation (human and material), other resources (space, existing assets, external interfacing), financial considerations (economics and cash flow projections), justification (the impacts and alternatives), and areas of uncertainty (risk), contingency and control plans.

Goals and objectives, by the way, are sometimes used interchangeably but really a goal is an overview statement while an objective is one of the components or stepping stones of which the goal is comprised

13 What is a project life cycle?

- A. If a project is well organized, it will progress logically through several phases. There are four standard phases to a typical project. The first two "concept" and "development" involve planning, that is to say, identifying the concept and then developing this concept and the plan to accomplish it as we have discussed. This usually leads to a formal submission of the plan (project brief) at which a go or no-go decision is given on the basis of the plan. If approved, this leads to the second two phases which are the accomplishment phases of implementing and finishing. As the names imply, this means converting ideas on paper to reality and getting the job finished and turned over to the customer.

Of course, different people in different project environments use different names but the principles are the same. Also, projects in different fields may require the four standard phases to be broken down further into stages such as separate feasibility studies; detailed design and working drawings; procurement; construction; training, commissioning and transfer.

14 How much time should planning take?

- A. Times taken for individual projects vary considerably often due to circumstances beyond the project manager's control, such as changes in market demand or economic conditions. However, studies have shown that good planning for projects in new surroundings takes roughly the same amount of time as that required for implementation. Ten months of conceptual development and planning is not unreasonable for a project that will take ten months to construct. On the other hand, planning for a well orchestrated plant maintenance shut-down may take several times as long as the shut-down itself.

15 What value does project management add?

- A. This is very difficult to answer in traditional accounting terms because the real value is in the quality of the end results and the avoidance of unnecessary delays and costs. In short, stakeholder and customer satisfaction. It's like taking out insurance, no one argues about taking out the right amount of insurance. No one should argue about doing the right amount of project management.

Remember that Murphy, that good old proponent of humorous laws, has said "A poorly run project will take three times as long and cost three times as much as a well run project..." However, he also added "compared to a well run project which only takes twice as long and costs twice as much." For our financial accounting friends, that's a 50% saving right there!

16 Why do projects always seem to take longer than expected?

- A. Typically this is because it is relatively easy to assign time allowances to all the activities that have

been thought of, but it is the ones that have not been thought of that take the extra time. However, there is also a tendency to be optimistic otherwise the project might not get approved, or "tight schedules" are a means to keep the pressure on the project team. Many delays arise from things that are necessary but were overlooked in preparing the plan. Even more delays are due to risks that were either not fully appreciated or disregarded during planning. The biggest and most damaging delay invariably stems from failing to start promptly the whole project or one or more of its major activities.

17 What if I need more time?

- A. A competent and professional project manager is always up front with the sponsor or senior management. The meeting may be uncomfortable but rest assured it will be a lot worse if the situation is left to deteriorate. Besides, there may well be more options for improving the situation available to the sponsor than to the project manager.

18 Why do projects always seem to cost more than expected?

- A. Generally this seems to stem from three causes. The first may simply be an overly optimistic cost estimate. Occasionally under-estimating is politically motivated to ensure project approval. Secondly, any schedule delays inevitably translate into added costs for someone. Thirdly, because most people have difficulty in fully understanding plans and specifications, when the sponsor or the users see the physical results of the project they then seek changes which cost significantly more to implement than they would have, had they been made at the planning stage.

19 How do I best control cost?

- A. Many people think that they are controlling cost when they approve invoices or sign cheques. In reality, the cost is already long since committed at this stage whether payment is made or not. Cost must be controlled at the planning stage. It costs little to make changes to the plans at this stage but the impact on the final cost can be quite significant. Therefore it is essential to establish realistic cost estimating for every component of the project before it is committed to implementation.

It must also be realized that project costs that are already committed or expended are sunk costs and cannot be controlled further. Only future uncommitted costs can be affected and therefore controlled. Consequently, the primary focus of all project management cost reports should be on estimates of future costs, and hence on the total cost-to-complete of each component of the work.

20 What if I need more money?

- A. The same applies here as in Question 17. However, the options that are open will depend on how far the project has already advanced. Generally there are two options. The first is to seek and obtain more project funding. The second is to reduce the scope of the project. Theoretically, a third option is to reduce the quality of some of the components of the project. However, this is not recommended as the impacts are usually marginal at best and at worst may lead to significantly greater costs during the subsequent life of the product.

More innovative and frequently very successful is to develop an alternative and more cost-effective solution to one or more of the project's objectives. There are techniques for doing this, such as value analysis, a technique which usually involves broad and expert consultations.

21 Can surprises be reduced?

- A. Yes, definitely! By their very nature, projects are uncertain business and uncertainty can lead to both risk and opportunities. Consequently, a very important part of a project manager's job is management of risk (Risk Management). The idea is to move potential uncertainties away from risk (i.e. adverse time and cost implications) and towards opportunity (that will enhance the project and make it more successful). To do this, potential risks must first be identified and preferably grouped in some way, analysed and then appropriate defensive responses initiated such as workarounds, or insurance. Failing that, prepare contingency plans as a precaution.

22 What is a task manager?

- A. Terminology in the project business is very confusing. Different people and different organizations use different names to mean different things in different circumstances and there is no well established set of standard definitions. Generally there is a hierarchical set of words which run from top to bottom as follows: Program, Project, Function, Process, Activity and Task. Interestingly, although the leader of any one of these may have different names, the management concepts involved are virtually identical. Moreover, the role of the leader of a particular task may be just as important to the overall success of a project as another apparently higher up the chain.

23 How do I get resources?

- A. We must presume that the requisite planning as discussed in Question 12 has been completed and the resulting plan approved for implementation. In that case, the required resources needed for the project must be secured by means of commitments. If the resources concerned are people from within the organization then a release must be obtained for some or all of their time to be contributed to the project. Equally, it will be necessary to get their willing participation in (i.e. commitment to) the project.

If the resources in question are of the material kind it may be necessary to procure them by negotiating internal agreements, obtaining approval for the issue of purchase orders, or by following established procedures to enter into agreements and contracts. Such contracts then represent legal and financial obligations of the project and ultimately of the sponsoring organization.

24 How do I organize and apply resources?

- A. The first and most important step in the implementation phase is to re-visit the project plan (or the project brief) and to make sure that it is still up-to-date. No doubt new information or a better understanding of the project will now be available. In any case, the plan will most likely require

further detail, and one of the best ways of getting people started and organized is to have them review their part of the work (work package) and to set about coordinating it with each of the other parts.

In this way a comprehensive and detailed plan can be built up by a team of people who each understand their participation and responsibility and are committed to the success of the project. Each party must then be instructed by the project manager to proceed as agreed and to apply their particular resources accordingly.

25 What do project managers do?

- A.** First of all a project manager must take responsibility for leading the project effort towards the stated and agreed upon goals and objectives of the project. He or she must also have a very clear idea of what constitutes the successful conclusion of the project and work towards that end.

Along the way, the project manager has a number of duties to fulfill such as helping the sponsor to understand the details of the project where changes (scope changes) may be required, planning and contingency planning, scheduling, communication (technical and project public relations) progress reporting, coordination and supervision. All of this must be carried out as necessary to ensure the proper and efficient execution of the work by all those involved.

26 What communication do I need?

- A.** Communication is perhaps one of the most important functions of a project manager and yet sometimes the least understood. Without people there is no activity, but without communication there is no action! Consequently, communication must be relevant, reliable and timely. It must inform in both technical and non-technical terms and above all, it must be concise and understandable to avoid mistakes and waste of time.

27 Where can I get help?

- A.** There are many sources of help such as books, educational programs, active societies and the Internet. But why not just pick up the phone and talk to your nearest project management association? They will be pleased to offer guidance and maybe even to participate.