Software Project Management

Subject code: 18BIT65S

UNIT V: Enforcing Quality: Defining Quality–Quality of the deliverables–Quality of the process–Quality Management as a Process Completing the Project: Completing the Final Tasks–The Project Postmortem –Obtaining Final Sign-Off –Post-Project Audit–Creating the Final Report.

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The quality of the management process is measured by several factors:

- **Results** The deliverables are a reflection of the ability of the project manager to manage and complete a project. The project team may be doing the actual implementation, but it is the responsibility of the project manager to coach and lead the project team throughout the entire process, not just at the beginning and the end. A deliverable that does not meet the expectations of the project's scope represents a project manager who failed to do his job.
- **Experience** The experience of completing the research, the planning, and the implementation of the project should be rewarding and educational for the project manager, management, and the project team. Not all projects are exciting and thrilling, but the experience of working with an excited project manager who is dedicated to the success of the project is contagious. At the end of the project, all parties involved should possess a sense of pride and satisfaction with the experience of being a part of and contributing to a successful project. The quarterback of the team, the project manager, has to call plays from the line, analyze defense, and discipline the team when it's necessary. Organization, communication, and a desire to achieve are all factors in the sense of accomplishment.
- **Project team** The project team members will measure you by your ability to lead them to finish. They will look to you from day one to inspire, lead, and encourage them. They need you to be decisive, fair, and responsive to their needs. How you work with, talk to, and interact with the individuals on the team will determine their opinion of you. They won't keep their opinion of you a secret, either; news of your ability, or lack thereof, will be shared with their peers and their supervisors throughout your organization.

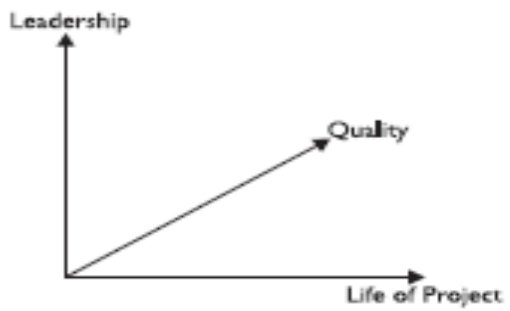
Managing the Quality

An IT project manager must have the keen sense to manage both the expectations of the deliverable and his own process to obtain the deliverables. The quality of the process is directly related to the quality of the deliverables. Simply put, the greater the project manager's ability to lead the process, the greater the quality of the project deliverables (see Figure 11-4).

A project manager can use numerous tactics to ensure that the project management process is excellent and superior to projects that may be anchored with delays and

FIGURE 11-4

A project manager's ability to lead impacts the project quality.



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- **Finance and accounting skills** While the project manager doesn't have to be a Certified Public Accountant, he should have some fundamental accounting experience or training.
- **Planning skills** The project manager must know how to plan for the project implementation. A clear understanding of the project requirements is a fundamental precursor to project planning.
- **Leadership skills** Leadership is the ability to establish direction, align people, motivate, and inspire.
- **Management skills** A project manager must have the management skills to produce the results the project stakeholders are expecting from the project team.
- **Communication skills** Ninety percent of a project manager's time is spent communicating. It's a fundamental skill for a quality project manager.
- **Problem-solving skills** It's key that a project manager has the ability to "figure stuff out." He recognizes the problem, finds a way to solve it, and then makes the decisions necessary to implement the solution.
- **Negotiating skills** A project manager must balance stakeholders' interests, keep peace and harmony on the project team, and use the appropriate give-and-take when it's needed.
- **Achievement orientation** A good project manager has to have a drive to get things done.

- **Agility** A project manager must be able to see the big picture, coordinate all of the moving parts of the project, and decompose the project end results into manageable components.
- **Service-oriented** A project manager works for his manager and the project customers. For projects to be successful, the project manager must serve the project—this includes serving customers, stakeholders, management, and even the project team.
- **Personal management** A project manager won't successfully manage projects if he can't manage himself. This includes control, temper, flexibility, time management, and so on. A project manager must be personally well organized and forward thinking.
- **Organization** This trait is probably the talent all successful IT project managers have in common. If you are not an organized person, learn how to become organized. Not only will your ability to manage projects increase but your quality of life will improve.

Project Information Center

One approach of project organization is to create a Project Information Center (also called the War Room). The size of your project and the available real estate within your office building will determine your ability to create a Project Information Center. This centralized room is a collection of all materials related to the project.

From here the project manager, the project team, vendors, consultants, and whoever else is involved in the project can drop by to retrieve information, learn the project status, and review work related to the project. In your Project Information Center, you can, and should, create a map of the entire PND on a wall to gauge where the project is at any time.

Resources needed by the team can be centrally stored here, along with books, videos, and magazines related to the technology being implemented. Tools and equipment connected to the implementation are stored here. Finally, the Project Information Center is an excellent location to hold team meetings, as resources are a footstep away.

Quality Management as a Process

Quality project management is an activity you need to perform from the concept of the deliverable to the release of the deliverable to ensure quality in all your activities. It is a belief that the process a project manager follows to ensure quality from the start of a project will propagate to the activities of the project team throughout the life span of the project.

Several concepts claim to be the "secret potion" for guaranteed successful projects every time. However, the one weakness, and common theme, in all project management processes is the reliability and willingness of the project manager and the project team to participate. This situation is comparable to joining a gym to get in shape—you have to actually go to the gym and work out to get the desired results. The same holds true with these concepts: you have to use and follow their principles for them to work.

Quality Phases of Project Management

There are five process groups within a project, as Figure 11-5 demonstrates. Each process group keeps an eye toward the quality of the deliverable or ensures that quality exists within the creation of the deliverable. Within each of the following areas, a project manager must work to implement quality and quality management checkpoints:

- **Initiating** The origin of the project results from a reaction to a need or an opportunity. This realization of the need or opportunity is the concept of the project. The business needs of the organization are addressed to ensure that the project will satisfy these needs first. Once the project charter has been written to authorize the project manager, the project can move into planning. Quality is affected from the start. If the expectations of the quality aren't set, aren't planned for, or aren't quantified, the project's success is doomed.
- **Planning** The cornerstone of a successful project is the planning. The project manager and project team must identify the required activities and estimate the time necessary to complete the activities in order to reach the project goal. Through the research, project managers can identify the necessary resources, funding, and skills required to achieve success. Armed with this information, the project manager can create the project plan. Quality doesn't happen on accident. During the planning processes the project management and the project team must plan how the quality demands will be met.
- **Executing** Once the project plan has been approved, the project work can begin. The project manager will rely on the work authorization system to record task completion and allow new project assignments to begin. Quality must be executed as part of the work. The project team must follow the specifics to meet quality demands as defined in the project plan.

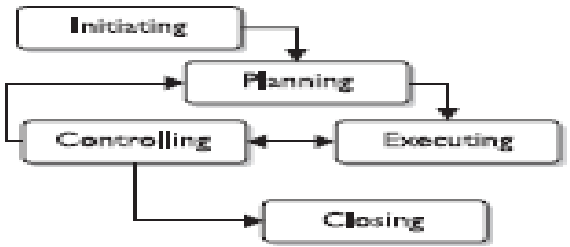


FIGURE 11-5

Quality is an objective in each of the five process groups of project management.

- **Controlling** This phase of project management is a continuous cycle to oversee the project. In this phase, more than any other, the project manager ensures quality through quality control. Scope verification is also done here to ensure that the project is delivering what was promised. Project managers also control projects through cost control, schedule control, and risk management. The process of managing the project must be of quality as well. Quality control is inspection-driven.
- **Closing** This portion of project management is the sigh of relief. It requires proof of the project deliverables, approval from management, and satisfaction from the customers or end users. This final stage moves the project from a work in progress to a component of the business. The final reports are submitted and archived, and the Lessons Learned is completed. Quality also happens in the closing phase. A complete and final review of the project, its ability to meet the quality objectives, and the quality of the project management experience is required.

These five phases of project management all contribute not only to the success or failure of the project, but also to the quality of the deliverables. A dedication to doing the required activities properly and with confidence in each phase is what leads to quality. Any one phase that is lacking a commitment to the success of the project can cause the entire project to be off balance and ultimately fail.

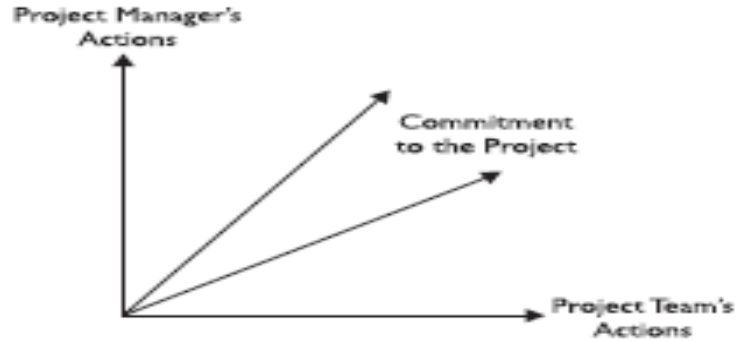
Completing the Final Tasks

When you begin to see the final tasks coming into focus, it is not a signal to ease off of the project team and the project. Some project managers make the costly mistake of allowing the project to finish under the guidance of a team leader or having too much faith in the project team to complete the tasks. These project managers allow themselves to relax, begin looking for new projects to lead, or begin their efforts to prove that Microsoft's FreeCell game 11982 can be won.

The problem with relaxing as the project is nearly completed is that the project team will follow your lead and relax as well. Project managers have an ownership of the project that sometimes leads them to believe they are superior to the project team and have permission to put their feet up. As the project team sees the project manager ease out of meetings, out of sight, and out of focus, they'll follow suit and do the same, as Figure 12-1 demonstrates.

FIGURE 12-1

The project team will follow the project manager's actions.



In the final stages of project, a project manager must actually do more to motivate and communicate with the project team. A project manager must attend every meeting as she's done throughout the project. She needs to get into the trenches and work with the team members to help them complete the work and keep them moving to complete the project on time. A project manager needs to discuss any final issues with the team, with the client, and with management. A project manager's presence is obviously required throughout the project, but even more than usual during the final chunk of the implementation.

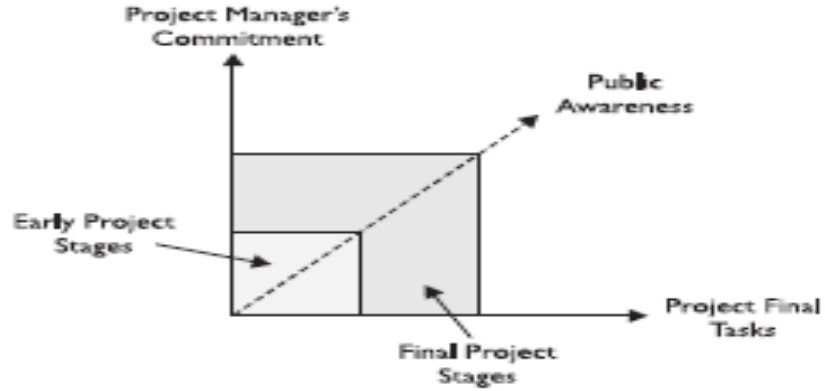
Going the Distance

What is, unfortunately, more typical of project managers than easing off of an on-track project is working in a frenzy to complete a project that's gone awry. For example, consider a project that has had six months to complete the implementation of a new e-mail client, develop workflow forms, and convert the existing e-mail servers. In this scenario, the final tasks are the most critical in the entire project. All of the prep work, research, and design have led the project team to this moment. The switch from old to new is when the curtain comes up and everyone in the company will see your work, your design, and your implementation. As Figure 12-2 demonstrates, these tasks, close to the finish, are the revelation of your ability as a project manager.

That fact becomes quite evident when the project team and the project manager realize they are not prepared to complete the project on schedule. Now the project manager looks for ways to speed up the process to compete the job on time. This usually means additional hours, nights, and weekends. Be prepared to work the hardest in the final days of a project's implementation if the project is off schedule even by just a few days.

FIGURE 12-2

The final tasks in a project require the project manager's full attention.



The secret here is to control your emotions, the project team, and any other parties who have volunteered to help with the final tasks. If the folks looking to you to complete the work see you losing control, getting angry, and cutting corners, they'll do the same. Cool heads always prevail.

When you find yourself with a huge amount of work to complete in just a few hours, here are a few guidelines to being successful:

- Remain cool, calm, and collected. Set the example for your team; think clearly, but quickly.
- Get organized and treat the final work as a mini-project. Analyze the work to be completed, break down the tasks, and set the plan into action. Create a map of the final implementation in a central war room and color-code the completed tasks.
- Communicate with the team members, but don't get in the way of their completing tasks.
- If you're visiting multiple workstations, organize a method to visually represent the completed work. For example, if a workstation has been prepped for a new installation, put a red sticky note on the monitor. Once the workstation has been completed, put a green sticky note on the monitor. At a glance, anyone can see the status.
- Check for quality. Periodically take a sampling of the work to confirm that what you are attempting to deliver on time is the quality you and the end user will expect.

The Project Postmortem

The final task has been completed, and there's a collective sigh of relief from all of the parties. But, sorry, you've still got a touch of work left to go on the project. Once all of the implementation tasks in the critical path have been completed, a project manager and the project team must do a few chores to inspect their own work. This time should be worked into the PND and shouldn't take very long at all, maybe 1 to 3 percent of the total project time.

- Reviewing for Quality
- Assessing the Project Deliverables
- Examining the Project's Worth
- Third-Party Review

- **Obtaining Final Sign-Off**

Once you're satisfied with the project deliverables, you will need to move on to the transfer of ownership of the project. You, the owner of the project, will release it to the organization so that the deliverables may go into production.

Using a Project Transition Plan

Some organizations rely on a project transition plan to help ease the transfer of the project deliverables from the project manager to the operations of the organization. This plan defines several things for both the project manager and the organization:

- **Transition dates** There must be either a defined date for the deliverables to be transferred to the organization or a description of the conditions for the deliverables to be moved from the management of the project to the management of operations.
- **Ownership** Projects are temporary endeavors that must eventually come to a close. When the project is completed and a set of deliverables have been created, someone must now be responsible for the management of the deliverables. The transition plan defines who owns the project deliverables and is responsible for the maintenance and upkeep on the deliverables.
- **Training** For IT projects, it's typical for there to be some training between the project team and the support team of the deliverable. The project team should train the recipients of the deliverable how to use and maintain the deliverable. This can be done through training manuals, train-the-trainer sessions, hands-on exercises, or a combination of knowledge transfer events.
- **Extended support** Depending on the type of project and deliverable, there may be some extended support that the project team will offer. The extended support usually requires that the project team and the operation team work together as the new technology is implemented so that the operational team can learn from the project team about the project deliverables and implementation.
- **Warranties** If the project was completed by a vendor for a client, there may be some warranty information about the project deliverables. The warranty should be detailed in the project contract and discussed during the operation transfer. It's ideal to discuss what the warranty will and will not provide early in the project so that there are no surprises when the client needs to enact the warranty.

Post-Project Audit

At the conclusion of the project and before the final project report is submitted, a project manager should complete an audit of the success of the project. The purpose of the audit is to analyze the completed project, the effectiveness of the project team, the success of the project, the value of the deliverables, and the overall approval from the clients. The audit can become part of your lessons learned documentation.

This audit must answer the following questions:

Was the Project Vision Achieved? Remember when you first created the vision of the project? That vision may have changed as the project evolved. The first question should answer if the project accomplished what its original intent was. If the project did not, explain why. Projects have a tendency to change and develop from the concept to the creation—sometimes for the better.

Was the Project on Track from Start to Finish? Hopefully, the project was able to stay on plan, on time, and within the allotted budget. If the project wasn't able to stay within the bounds of any of these areas, explain why. Sometimes the scope changed, the resources flexed, or the expenses of the project were not predicted as accurately as they should have been. This should be an honest reflection of each side of the project triangle (scope, time, and budget).

Did the Project Create a Recognizable Business Value? The deliverable of the project should be to make a company more profitable in its streamlined process, attract more sales, or gain productivity. This business value needs to be identified and proven to show the ROI of the project.

Can You Share the Knowledge? Some organizations have a project management system in place that requires project managers to report on their methodology and how it worked for them, or what they may have done during the project to improve the process. These adjustments that you make during the implementation need to be shared so that other project managers with the organization

Creating the Final Report

As with every other phase of the project, documentation is required. The good news is that the final documentation of the project does not have to be an in-depth novel of all of the work completed. If you have completed cumulative progress reports throughout the project, consider the final report one last cumulative record with a few extra ingredients. The collection of all of the cumulative reports may serve as a final record of each phase's work with a few extra parts. You will need

- The project vision statement that introduced the project
- The project proposal that you may have used to sell management on the idea of the technical implementation—or the supporting information for the project that was assigned to you
- The scope statement
- The statement of work
- The project schedule
- The WBS and the PND
- Any Project Change Request forms that were approved (Some project managers may choose to include the denied Project Change Request forms to verify why the request was not included in the deliverables.)
- Variance reports
- All communication relevant to the project deliverables (Some project managers include all memos, letters, and e-mail in the report.)
- Total cost of the project and the calculated value of the implementation
- Scope verification agreement
- Post-project audit report