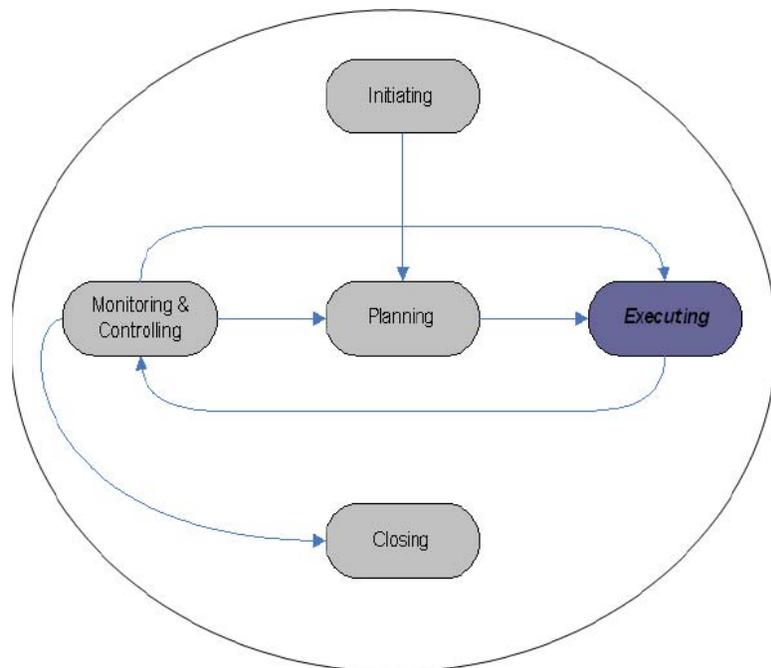


## 4.1 Project Execution Phase Overview

Once a project moves into the Execution Phase, the project team and the necessary resources to carry out the project should be in place and ready to perform project activities. The Project Plan should have been completed and baselined by this time as well. The project team and specifically the Project Manager's focus now shifts from planning the project efforts to participating in, observing, and analyzing the work being done.

Figure 4.1.1 shows where in the Project Management the Execution Phase occurs.

**Figure 4.1.1**  
**Project Management Execution Phase**



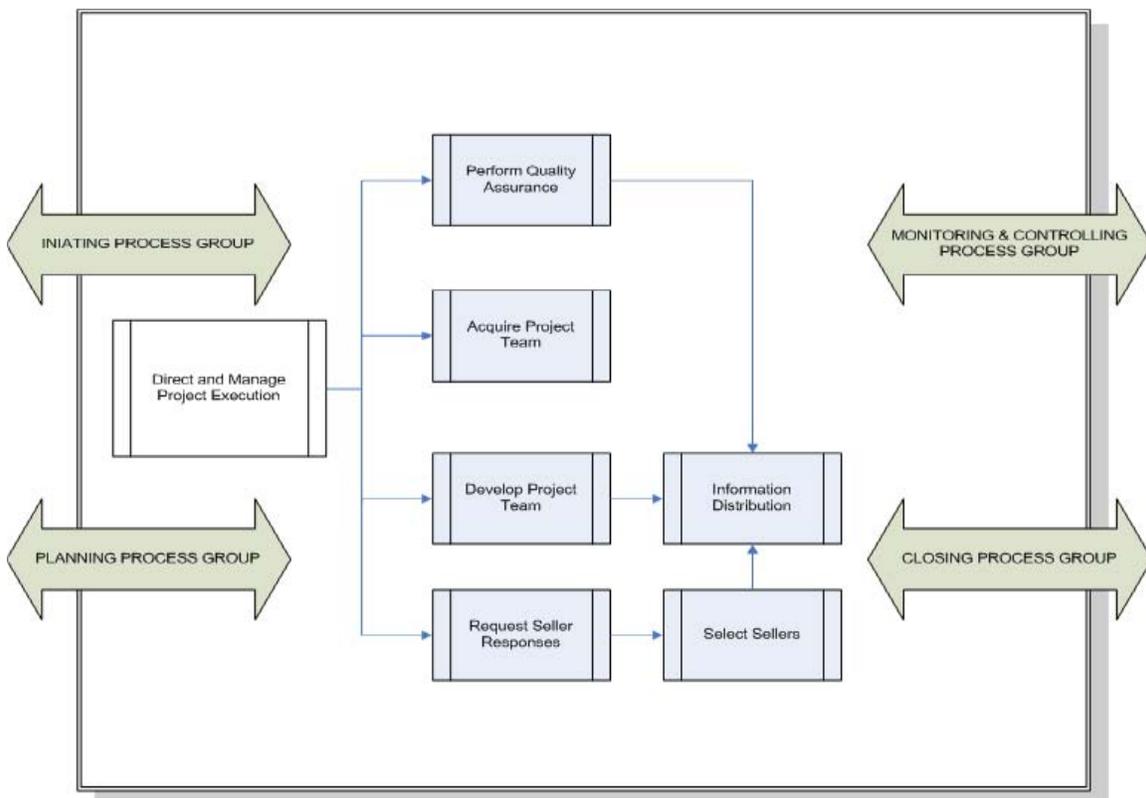
### Project Manager's Responsibilities

A Project Manager's responsibilities do not stop once the planning of the project is done. Because a Project Manager is responsible to internal and external stakeholders, the project team, vendors, executive management, etc. the visibility of the position is intensified. Many of these

people will now expect to see and discuss the resulting deliverables that were so meticulously detailed in the Planning Phase. As a Project Manager, keeping oneself from getting “down in the weeds,” especially on large projects, will be important during project execution. This will allow the Project Manager to focus their attention on enabling the project plans, processes and managing the expectations of customers and stakeholders.

Particular attention during Project Execution will need to be paid to keeping interested parties up to date with project status, dealing with procurement and contract administration issues, helping manage quality control, and monitoring project risk. While the processes to control many of these elements are discussed within the Project Control Phase it is still important that the Project Manager be cognizant of the issues as the project is being performed. Daily interaction and feedback from team members will be vital to project success. Relationships of the Executing processes, with which the Project Manager must be aware, are depicted in Figure 4.1.2.

**Figure 4.1.2**  
**Relationships Among the Execution Processes**



## Quality Assurance

Quality Assurance incorporates a process of evaluating overall project performance on a regular basis to provide confidence that the project will satisfy the relevant quality standards. Accordingly, while it is important that each team member be responsible for the quality execution of tasks, a team or individual from Quality Management may be included in the project team and provides an integral role in the execution of quality throughout the project.

This team or individual assures that the quality plan is executed as planned. The quality team or individual is a member of the project team, but must also have a reporting chain outside the project to facilitate problem escalation. Problem escalation is the process of moving a problem to a higher management level if sufficient attention is not given by the Project Manager. The independent reporting chain provides a check and balance on the project.

## Project Team Responsibilities

The project team members are expected to assist in the management of the project as well; albeit, at a more functional level. The critical project management elements for the project team to provide assistance with include:

### **Performance Monitoring**

Implement an execution plan to measure actual performance as compared to planned performance. For example, actual project schedules will need to be reviewed periodically and compared to baseline schedules in order to discern if the project is performing according to plan. If the project is not performing according to baseline, steps will be taken to get the project back on track. The same monitoring and analyzing should take place on budgets, quality, risks, scope, etc.

### **Provide Project Status**

While the Project Manager is responsible for relaying project status to parties outside the project team, the project team is expected to report status to the Project Manager. This includes communicating information on both a formal and informal basis. More detail is provided on this subject in Status Reporting, subsection 4.4, of this phase.

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## 4.2 Executing the Project Plan

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The Project Plan Execution Process ensures that planned project activities are carried out in an effective and efficient way while ensuring that measurements against project plans, specifications, and the original project feasibility concept continue to be collected, analyzed and acted on throughout the project lifecycle. Without a defined project execution process each project team would execute projects using their own best practices, experience, and methods; allowing certain control, tracking and corrective action activities to be missed.

It is important to note that project execution relies heavily on the plans developed in the Planning Phase. There is already enough work to do within the Execution Phase of the project, therefore having to reinvent ways of dealing with risk, change requests, training and resource issues, and other such obstacles to progress are impractical and undesirable.

It is also critical during the Execution Phase that the Project Manager supports and monitors the execution of other important project plans such as the Communications Plan, the Risk Plan and Procurement Plan via daily interaction with the project team and stakeholders.

### **Information Distribution**

#### ***Using Status Reviews for Information Distribution***

The project Communications Plan is an important factor in the Project Execution Phase. A large part of a Project Manager's responsibility during execution is keeping the stakeholders informed of project status. Joint project reviews are a good way to bring visibility to all areas of the project. They provide an opportunity to discuss important issues and make management decisions on the project with input from several sources.

Joint project reviews can involve the Project Manager, project team members, project stakeholders, and agency management depending on the issues being discussed. The frequency and topics covered at these meetings should be outlined in the Communications Plan.

### **Benefits of Status Reviews**

Examples of benefits of Joint Status Review Meetings include:

“What isn’t seen to be done isn’t done” – Visibility of accomplishments is vital, and joint reviews allow all interested parties to acknowledge and approve milestones/accomplishments.

Parties must agree on the outcome (e.g. approval, dis-approval, contingent approval) of the review and any action items as a result of the review. The best way to reach agreement is to get both parties together in a formalized, planned manner.

## **Project Administration**

Project Administration is initially considered during the Project Planning Phase when the Project Plan is created. During the Project Execution Phase, the Project Plan is implemented and modified as necessary.

Project Plan modifications may result from such things as:

- New estimates of work still to be done (generated as more detailed information is known about outstanding work)
- Changes in scope/functionality of end-product(s)
- Resource changes
- Unforeseen circumstances

In addition to keeping the Project Plan current, project administration involves monitoring the various Execution Phase activities (and adding them as appropriate), monitoring risks, status reporting, and reviewing/authorizing project changes as needed.

The following is a list of documents and procedures that might be helpful in identifying the cause of project problems and taking action to eliminate/prevent them.

- Corrective and preventative action procedures

- Tracking time spent on project activities by team members
- Timesheet recording procedure
- Timesheet forms
- Status reporting by team members
- Project status reporting to management

## **Procurement**

### **Executing the Procurement Plan**

As stated in the Planning Phase of this methodology, there will be times within the Execution Phase that the agency may have to go outside their resource pool to purchase products or services needed to deliver the project. In these cases, the project Procurement Plan will be put into action. An agency may have a defined set of guidelines and policies that provide the infrastructure for project purchasing which should be integrated within the Procurement Plan.

These guidelines will outline the policy for solicitation, source selection, and contract administration. Although the solicitation and contracting responsibilities themselves may not always be managed by the Project Manager, it is still important that the Project Manager have a fundamental understanding of the contracting and procurement policies.

### **Project Manager Responsibilities**

The Project Manager's responsibility in the Execution Phase is to provide input into new product requirements for the services or products that were not planned for in the Planning Phase. In addition, the Project Manager will be responsible for insuring that the vendors, once contracted to do the work, meet the contractual agreements specified within their contracts. Project Managers will also be responsible for tracking, reviewing, and analyzing the performance of contractors on a project.

This performance reporting will be the basis for any contractual changes that need to be made during the life of the contract. Finally, Project Managers will play an important role in oversight and review of any contract changes that will affect the project.

## Scope Verification

Scope Verification is the project management responsibility that focuses on insuring that the products created during the Project Execution Phase are correct and meet agreed upon requirements. This may sound similar to Quality Control; however, according to the *PMBOK®*, “*Scope Verification differs from quality control in that it is primarily concerned with the correctness of the work.*”

### How is Scope Verified?

It must be remembered that the baseline for the creation of any deliverable is the baseline scope plus or minus any agreed upon changes. Falling short of or going beyond the agreed upon scope will jeopardize the acceptability of the deliverable. Scope verification is achieved through inspection or formal reviews of the deliverables. Once a project deliverable is accepted by the customer, a formal acceptance document should be drafted and signed stating such.

## Other Aspects of Project Plan Execution

Following are some other issues that Project Managers will want to pay attention to when executing the Project Plan and the other associated project management documents.

### Document the Work Results

Results are the outcomes of the activities performed to accomplish the project. Information on work results provide input on which deliverables have been completed and which have not; to what extent quality standards are being met; and what costs have been incurred or committed. This valuable data needs to be collected and fed into an agency performance reporting process.

### Applying and Documenting Organizational Policies

All agencies that request development projects have formal and informal policies that may affect Project Plan execution. Project Execution may also lead to the realization of the need for new policies or alteration of existing policies. Any consideration for new agency policies and procedures should be documented during the Execution Phase and reviewed for implementation.

**Work Authorization**

A work authorization system is a formal procedure for sanctioning project work to ensure that work is done at the right time and in the proper sequence. A primary mechanism may typically be a written authorization to begin work on a specific activity or work package. The design of a work authorization system should balance the value of the control provided with the cost of that control. Task assignments using Project Central is a work authorization as well.

## 4.3 Risk Monitoring

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Risk identification, monitoring and resolution are key tools to successful completion of a project. Part of controlling a project during the Execution Phase is to have an established risk management process. This process is begun as part of Project Planning (see Risk Management subsection of the Project Planning Phase Section) and is kept current until Project Closeout. The key elements to this process are:

- Creating a central repository for risk information and associated documentation of risk items and resolution strategies
- Summarizing information on a risk form
- Including a risk summary in the regular status meetings
- Providing a consistent and ongoing evaluation of risk items and development of risk strategies:
  - Identify the risk
  - Evaluate the risk
  - Define a resolution

### **What is After Risk Assessment?**

The risk control process, created in the Project Planning Phase, is baselined and fully maintained during Project Execution. Provided in the Project Planning Section was one view of a risk model that can be used for this process. The key is not the format of the data, but that a plan is developed, baselined and kept current during the Execution Phase.

It is important to mention that risks are not events that have occurred, but rather events that might occur that would adversely impact the project.

### **The Evolution of Risk Control**

As a project evolves through the various project management phases, the ability to define and specify the risk items increases. This is attributable to the fact that more is known about the project and the associated issues.

During the Execution Phase, risks are more definitive, and tangible resolution strategies emerge. This allows for the development of realistic contingency plans, including specific action plans. These actions must then be tracked. The actual format for the Risk Management Plan should reflect these activities.

### **Risk Monitoring is an Iterative Process**

In all cases, risk management is an iterative process that is performed throughout the project. Risk Management examines the risk and its potential impact on the project and defines actions to eliminate or to mitigate the impact of that risk, should it occur.

The process starts with the risks identified in the Project Plan and the first definition of resolution strategies.

The risk management process, which is a cyclical and iterative process, includes four overlapping steps:

- Risk Identification
- Qualitative and Quantitative Risk Analysis
- Risk Response Planning
- Risk Monitoring and Control

### **Risk Meetings**

The risk process is not just completing the risk assessment form during Project Planning and then forgetting about it. Risk Management, of which risk control is part, is a process that involves all members of the project team and occurs throughout all project management phases. Risk meetings are part of, and contribute to, the process of identifying risks and developing ways to approach the risks. These are especially helpful on high risk or complex projects.

### Ongoing Risk Identification

- ***Risk Identification Meetings*** – It is during this process that the current risk list is reviewed and updated.
- ***Executive Review Meetings*** – A summary of the top risk items for the project is included in the executive project review meeting. This should be not more than one page and should list the risk, state the defined resolution, and indicate the current status.
- ***Project Status Meetings*** – On a regular basis, the individual responsible for risk should report to the project status group on the current status of project risk. There should be a written summary, preferably using the actual risk form, including information on all contingency plans currently underway.

The initial list of risks that begins with the project will evolve over time. To ensure that new risks are added and resolved risks are eliminated, risk identification meetings should be held. How often this should occur is based upon the size of the project and the “perception” of the project team and key stakeholder as to the degree of risk that exists for the full project.

The format for these meetings should be open and interactive to facilitate a wide consideration of risk areas. Some suggestions on meeting format include:

- Brainstorming
- Breakout sessions
- Other meeting approaches that encourage the free flow of information

The starting point for this meeting is the previous risk list. Additionally, some general areas should be considered. The group should be given some ground rules in terms of the degree of risks that will be tracked and ways to eliminate or include risk items. Some criteria for risk tracking include timeframe (when it would possibly occur) and value (what would be the cost if it occurred).

Risks must be prioritized to ensure that key risks are addressed. Be careful not to identify so many minor risks that major risks are buried. The basic ground rules for prioritization are:

- There should generally be about 5 to 10 risks being “worked” at any one time. These should be the risks with the highest probability of occurring. For very large projects, each subsystem or major activity may be tracking this number of risk items.
- The list of actively monitored risks should generally be no longer than a single sheet. Keep a separate list of lower priority risks so that they can be reviewed at future risk identification meetings.
- Select the risk items that have the greatest possible impact on cost or schedule.
- The prioritization process starts with the group that identified the risk, but also includes the Project Manager, key stakeholders and Senior Management.

From this risk identification process, the team determines the three elements that characterize a risk. These elements are:

- ***Risk Event*** – a statement of what might happen in the project.
- ***Risk Probability*** – how likely the event is to occur.
- ***Amount at Stake*** – the severity of the consequences should the risk occur.

A very simplistic approach to getting a prioritized list of risks would be to conduct the following calculation:

**Risk Event Value = Risk Probability x Amount at Stake**

It is impossible to give a hard-and-fast rule on what method should be used for prioritization, since this is a process that needs to be driven by the actual project.

As the project team works with the risk management process, they will get more proficient at knowing what should be considered as the top risk, which ones need the most attention, and to what extent the risk will impact the project.

### **Risk Resolution**

For the “top risk” items, mitigation/resolution strategies must be developed. From the steps above a view of the risk is developed which includes: where, when, and to what extent the risk will impact the project.

With these factors identified, the following options can be considered:

- Eliminating or avoiding the specific threat, usually by eliminating the cause. The project team can never eliminate all risk, but specific risk events can often be avoided.
- Reducing the expected cost associated with a risk through mitigation. This is a mathematical solution to containing the risk impact on a project. In some ways it can be seen as “transfer.”
- Transfer the expected risk via insurance, negotiation, with key stakeholders or by other means. Insuring the agency or department against the occurrence of a risk event reduces the potential financial liability should an incident occur.
- Accepting that a risk will occur and developing contingency plans to be executed should the risk event occur. It could also be in the form of increasing the cost of the budget to some threshold for specific risk items.

## 4.4 Status Reporting

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Status reporting is an integral part of the project management processes. It is the means by which the project team, the stakeholders, and executive management stay informed about the progress and key activities required to successfully complete the project. The purpose of the Status Report, like the status meetings, is to develop a standard format for the formal exchange of information on the progress of the project. The Status Report should be tailored to the project, but should be the same form for the full team.

Status Reports should be prepared by the project team detailing activities, accomplishments, milestones, identified issues, and problems. Status Reports should follow a standard template so all reports are in the same format.

The Status Report Template should be used to report key information including:

- Current status
- Significant accomplishments for the period
- Scheduled activities
- Issues

Along with the Status Report form, the following may be attached:

- Updated Gantt charts
- Recovery plans for activities not on schedule
- Corrective action plans for expected problems
- Resolution to assigned action items