



Version 6.1 Updated for the 2021
Project Management Professional (PMP)[®] Exam



Crosswind Success Series: PMP[®] Exam Bootcamp Manual

www.crosswindpm.com

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Version 6.1 aligned with the Project Management Institute, *A Guide to the Project Management Body of Knowledge, (PMBOK[®] Guide)* - Sixth Edition, Project Management Institute Inc., 2017

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Chapter 9

Project Integration Management

While the other nine knowledge areas may be managed, in whole or in part, by specialists, Project Integration Management is the sole purview of the project manager. Accountability for this knowledge area cannot be transferred or delegated.

The goals of Project Integration Management are to:

- Make certain that the due dates of the benefits management plan, the product life cycle, and the project result, service, or product are in alignment
- Deliver a project management plan that will result in the achievement of project objectives
- Make certain that appropriate knowledge is generated and utilized both in and out of the project as necessary
- Manage activities delineated in the project management plan, in terms of both performance and change
- Quantify and monitor project progress, taking appropriate steps to ensure project objectives will be met
- Collecting and analyzing data in connection with results achieved, then communicating the information to appropriate stakeholders
- Completing all the project work and formally closing each phase, each contract, and the project as a whole

The sophistication of the approach needed to successfully perform Project Integration Management is directly related to the complexity of the project and the diversity of stakeholder expectations.

Trends

The five most notable trends are:

- The use of automated tools
Project managers are experiencing the need to integrate increased amounts of data and information necessitating the use of a project management information system (PMIS) and automated tools for the collection, analysis, and use of the information.
- The use of visual management tools
Project teams, especially those involved in adaptive or hybrid projects, are using visual management tools (e.g. deliverables for current sprint) in place of written plans and other items to document critical project factors. Visual management tools make critical project factors visible to the entire team.

- Project knowledge management
To ensure that project knowledge is not lost when the work force is becoming more dispersed and transitory, project managers are putting in place a stringent process for knowledge identification throughout the project and transference of that knowledge to the appropriate parties.
- Project boundary expansion
Project managers are more frequently assuming a collaborative or management role in the initiation and finalization of the project, activities that were controlled by management and the project office. Project managers are also more frequently involved in a more exhaustive effort to identify and engage stakeholders, including the management of interfaces with senior management and operations.
- Hybrid methodologies
The project team is adopting many practices from an adaptive environment, including Agile practices, the application of business analysis techniques to requirements management, the application of change management techniques to the transition of project outputs to the organization, and the applications of tools that identify complex project elements.

Tailoring

Project tailoring, the manner in which processes of a knowledge area are exercised, is employed to address the distinctive nature of each project. Successful project tailoring is predicated on a careful consideration of:

- The approaches employed for life cycle, development, and management
- Knowledge management
- Change
- Governance
- Lessons learned
- Benefits

Agile/Adaptive Environment

Agile, and other iterative project approaches, encourage a reliance on team members as local domain experts for integration management. During project integration management, the team members determine the manner in which project plans and components are integrated.

The project manager is responsible for building a collaborative decision making environment and ensuring that the team can respond to change.

Note that teams with an extended skill base are generally more effective at collaboration than those whose members have a narrower skill base.

The source for the above text is the Project Management Institute, *A Guide to the Project Management Body of Knowledge, (PMBOK® Guide)* – Sixth Edition, Project Management Institute Inc., 2017, Pages 69-74

In this chapter, we discuss the following:

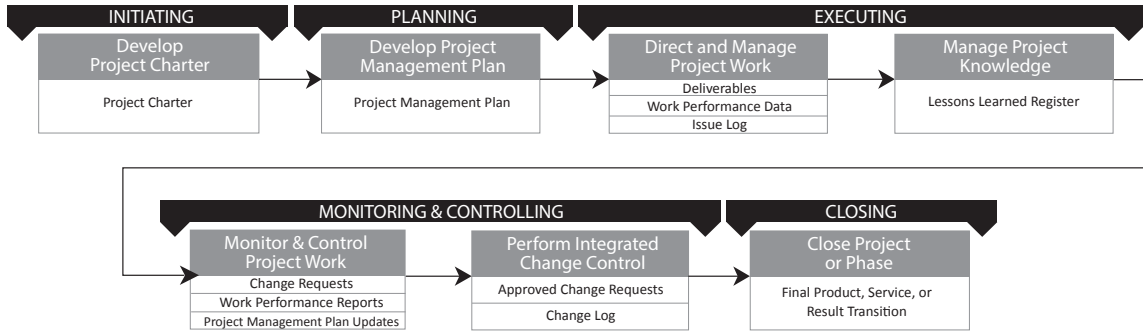


Figure 9-1: Integration Processes

The source for the above figure is the Project Management Institute, *A Guide to the Project Management Body of Knowledge, (PMBOK® Guide) – Sixth Edition*, Project Management Institute Inc., 2017, Figure 4-1, Page 71



Crosswind “Must Knows” for Project Integration Management

- Key Inputs, Tools & Techniques, and Outputs for Develop Project Charter
- Key Inputs, Tools & Techniques, and Outputs for Develop Project Management Plan
- Key Inputs, Tools & Techniques, and Outputs for Direct and Manage Project Work
- Key Inputs, Tools & Techniques, and Outputs for Manage Project Knowledge
- Key Inputs, Tools & Techniques, and Outputs for Monitor and Control Project Work
- Key Inputs, Tools & Techniques, and Outputs for Perform Integrated Change Control
- Key Inputs, Tools & Techniques, and Outputs for Close Project or Phase
- General attributes of organizational process assets
- General attributes of enterprise environmental factors
- Characteristics of the project charter, how it is used, who creates it, and how project management uses it
- Characteristics of project selection techniques and their importance
- Characteristics and components of a project management plan
- What assumptions and constraints are as they relate to a project
- Characteristics and importance of a baseline
- Characteristics of a Project Management Information System
- Characteristics of a work authorization system
- Differences between requested changes and approved changes
- Characteristics of a change control system

	Characteristics of a configuration management system
	Important considerations of closing a project such as product verification, lessons learned, updating of records, reporting, archiving, and formal acceptance of components
	The definition and importance of lessons learned
	How to close a project and the documentation required to do so

Although helpful, this list is not all-inclusive in regard to information needed for the exam. It is only suggested material that, if understood and memorized, may increase your exam score.

9.1. Project Influence

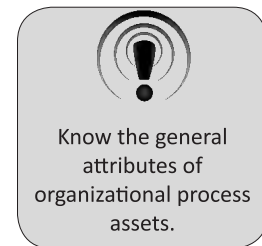
The environments in which a project resides and operates may exert an influence, favorable or unfavorable, on the project.

The two major sources of influence are organization process assets (OPAs) and enterprise environmental factors (EEFs).

9.1.1. Organizational Process Assets

Organizational process assets can be inputs to many processes and can include information systems, company policies and procedures, process definitions, templates, criteria to complete (close) projects, organization communication needs, issue management, financial infrastructure, change control processes, risk management, and work authorization.

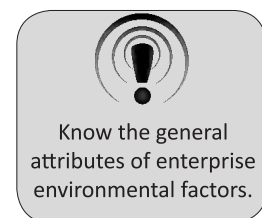
A corporate knowledge base can also be broadened by expanding the organizational process assets to include: process data, project files and records, lessons learned, historical information, configuration management data, databases, and financial data.



9.1.2. Enterprise Environmental Factors

Enterprise environmental factors can also be inputs to many processes and can include government regulations, market conditions, organizational structure and culture, business infrastructure systems, government standards, personnel policies, the business market, stakeholder tolerance for risk, and PMIS (Project Management Information Systems).

Because these factors have the potential to influence project success, it is important that they are identified and considered during project planning.



9.2. Project Management Plan Updates

The project management plan is a **living, breathing document**. As the project evolves, the project management plan is updated to accommodate the modification or clarification of any planning process. The plan is also updated to accommodate any adjustments resulting from a monitoring and/or controlling process.

9.3. Project Documents Updates

Note that updates and clarifications to project documents do not always warrant comparable changes to the project management plan. For example, clarifying the scope statement or moving money from one cost center to another does not require an update to the project management plan.

9.4. Project Business Documents

The project manager is responsible for ensuring that the project management approach aligns with the intent of the project's business documents, specifically the business case and the business management plan. The business documents are interdependent and are developed and maintained iteratively throughout the project's life cycle.

The project manager is also responsible for providing recommendations and oversight to keep the success measures for the project management plan, business case, and benefits management plan in alignment with one another and with the goals and objectives of the organization.

The project manager is responsible for tailoring the project documents.

9.4.1. Business Case

The business case, which usually describes the business need and contains a cost-benefit analysis, is used to justify the creation of the project and is the basis for the project charter.

At the end of the project, the business case can be used to measure project success in terms of achieving project objectives.

9.4.2. Benefits Management Plan

The benefits management plan describes the alignment of the project with organizational business goals, the targeted benefits, and the manner in which the benefits are transitioned and measured.

The benefits management plan and the project management plan include a description of business value and the metrics that will be used to measure business value. Business value can be used to measure project success.

9.4.3. Success Measures

Traditionally, project success was measured by the project adhering to the schedule, cost, and scope parameters. Today, project success is often dependent on other factors.

The project manager and stakeholders must agree on, and then document, the factors that define project success, the approach to measuring success, and the factors that will impact success.

Note that success may be further defined by criteria linked to organizational strategy and the delivery of business results.

Project objectives may include:

- Completion of the benefits management plan
- Meeting agreed-upon financial measures defined in the business case
- Meeting non-financial objectives defined in the business case
- Moving the organization from its current state to a desired future state
- Fulfilling contract terms and conditions
- Meeting organizational strategy, goals, and objectives
- Achieving stakeholder satisfaction
- Achieving acceptable customer/end-user adoption
- Integrating project deliverables into operations
- Achieving the agreed-upon quality of delivery
- Meeting governance criteria
- Achieving other agreed-upon criteria

Project success increases if business alignment is constant because the project will align with the organization's strategic direction.

9.5. Project Information

Project evolution results in project information evolution. Project information can include work performance data, work performance information, and work performance reports.

Figure 9-2: Project Information Evolution illustrates the evolution of information throughout the project:

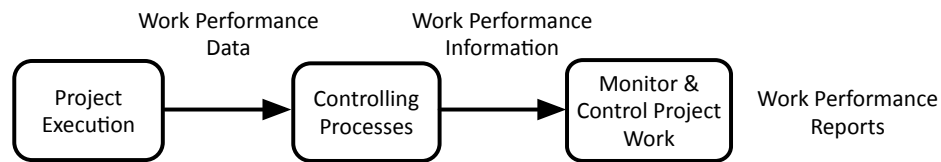


Figure 9-2: Project Information Evolution

9.5.1. Work Performance Data

Work performance data is raw data generated as a result of project work. Examples include **start and finish dates**, **completion percent for activities**, **number of defects**, and **number of change requests**.

Work performance data is analyzed and then converted to project information.

9.5.2. Work Performance Information

Work performance information is generally created as a result of the monitoring and/or controlling processes. Once analyzed, the analysis results are presented as a representation of the state of the project in areas such as the **state of deliverables**, the **status of change requests**, and **forecasts** related to schedule and cost. Such information is the basis of reports used to fulfill stakeholder communication requirements.

9.5.3. Work Performance Reports

Work performance reports are physical or electronic depictions of work performance information in the form of project documents that help stakeholders make decisions. Examples include **status reports, progress reports, memos, recommendations, and updates.**

The source for the above text is the Project Management Institute, *A Guide to the Project Management Body of Knowledge, (PMBOK® Guide)* – Sixth Edition, Project Management Institute Inc., 2017, Pages 28-35

9.6. Develop Project Charter (Initiating Process Group)

Develop Project Charter is the process which creates the document which formally authorizes the project or project phases and authorizes the project manager to use organizational resources for project activities.

The charter aligns the project with organizational objectives, creates a formal record of the project, and is evidence of organizational commitment to the project.

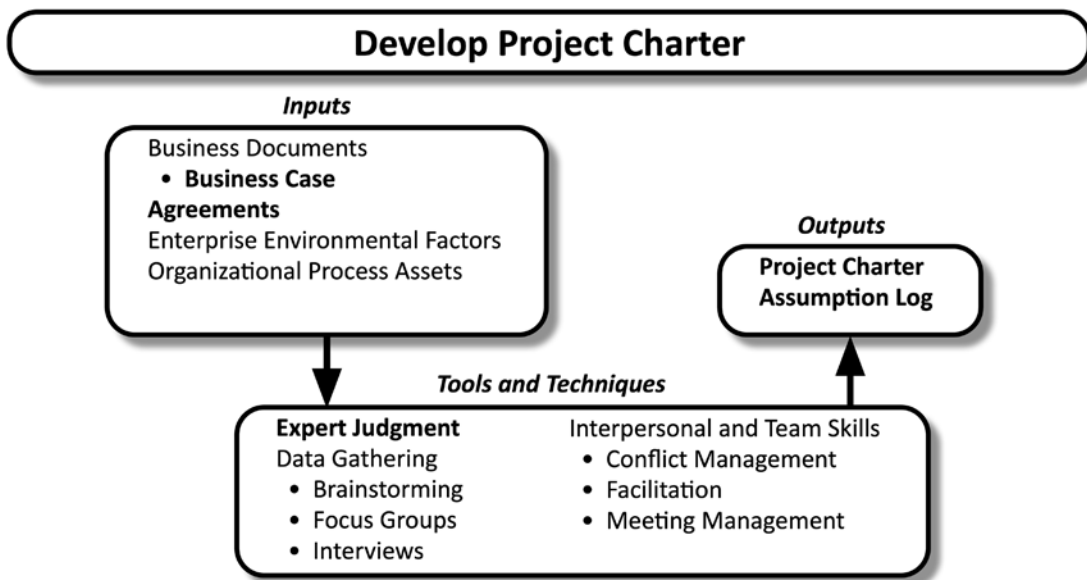
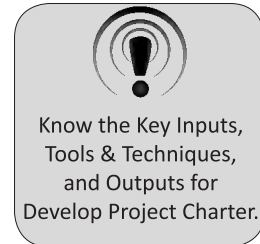


Figure 9-3: Develop Project Charter Data Flow Diagram

The source for the above figure is the Project Management Institute, *A Guide to the Project Management Body of Knowledge, (PMBOK® Guide)* – Sixth Edition, Project Management Institute Inc., 2017, Figure 4-2, Page 75

Develop Project Charter (Initiating)		
Key Inputs	Business Case	A business case, which usually describes the business need and contains a cost-benefit analysis, is used to justify the creation of the project and is the basis for the project charter. Note that the project manager is not responsible for updating or modifying the business case since it is a business document.