Project Management Body of Knowledge (PMBOK)

(An Overview of the Knowledge Areas)





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Free PMBOK Guide, PDF file:

http://egweb.mines.edu/eggn491/Inform ation%20and%20Resources/pmbok.pdf

(Visit, review, copy and/or save, 1996 edition)

Purchase from publisher:

PMI, Project Management Institute, Four Campus Boulevard, Newton Square, PA 19073-3299, USA

PMBOK Guide, ISBN: 1-880410-23-0 (2000 Edition)

www.pmi.org





Published and maintained by Project Management Institute (PMI), the PMBOK Guide is recognized as the basic reference and the world's de facto standard by the project management profession. It describes the generally accepted knowledge and practices necessary to complete projects successfully.



Ref. Page in slides refers to the PAGE from PMBOK 2000 Edition from PMI. The page number shown may not match the FREE pdf version of 1996 edition PBMOK available for download.

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Ref. Page N/A PMBOK Contents - 12 Chapters

PMBOK has 12 Chapters of which the last 9 Chapters contain the 9 Knowledge areas

- Chapter 1: Introduction
- Chapter 2: The Project Management Context
- Chapter 3: Project Management Processes
- Chapters 4, 5, 6, 12: 9 Knowledge areas
 - Chapter 4: Project Integration Management
 - Chapter 5: Project Scope Management
 - Etc.



Nine PM Knowledge Areas

(Help: The art and science of doing PM tasks)

4. Integration Management		
Project integration helps you with project planning, execution, and control. It also identifies procedure you need to establish for project change control.	5. Scope Managemen Project scope definition is very important for the success of the project. This area of knowledge helps you develop scope statement, boundaries of project, etc.	





7. Cost Manage..

You will need the information here for estimating cost of resources (people, material, equipment, travel, etc) for the project.

8. Quality Manage...

It offers tools for quality planning and assurance. It also describes current practices for evaluation and monitoring of quality requirements.

9. Human Resource

This area helps you with finding people for the project and defines their roles and responsibilities. It also helps you structure the appropriate reporting relationships.



1	0.	Communication

Deals with ways to plan. 11. Risk execute and control gathering and disseminating of all information relevant to the needs of the project stakeholders.

It describes the systematic process by which to identify, analyze, and respond to the project risk. It assures increase probability of project success.

12. Procurement

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It helps with methods for procurement of goods, issuance of bids, selection of vendors, administering and closing contracts.



Project Management Processes (System View of an Activity)

An activity can be seen as a system that helps accomplish it. A system represents a process that needs input to perform the tasks, and has an output .





Ref. Page 41 Project Integration Management

Includes processes that are performed to make sure that various elements of the projects are properly coordinated.





Ref. Page 42 Project Integration Management

- Project Plan Development





Ref. Page 46 Project Integration Management

- Project Plan Execution





Ref. Page 47 Project Integration Management

- Integrated Change Control

This process is for determining that change has occurred, ensuring that changes are agreed upon, and managing the actual changes when they occur.





Project Scope Management

Includes processes required to ensure that the project includes all work required, and only the required , to complete the project successfully.





Project Scope Management - Initiation





Project Scope Management

- Scope Planning





Project Scope Management

- Scope Definition





Project Scope Management

- Scope Verification





Project Scope Management

- Scope Change Control





Project Time Management

Includes processes required to ensure timely completion of the project.





Project Time Management

- Activity Definition





Project Time Management

- Activity Sequencing





Project Time Management

- Activity Duration Estimating





Project Time Management

- Schedule Development



- . Project network diagram
- . Activity dur. Est.
- . Resource reqmt.
- . Resource pool desc.
- . Calendars
- . Constraints
- . Assumptions
- . Leads & lags
- . Risk mangmt. Plan
- . Activity attributes



- Mathematical analysis
- Duration compression
- Simulation
- Resource leveling heuristic
- Project Management software
- •Coding structure







Project Time Management

- Schedule Control





Project Cost Management

Includes processes required to ensure that the project is completed within the approved budget..





Project Cost Management

- Resource Planning

Input: What you need to do the job?

- . Work Breakdown structure
- . Historical information
- . Scope statement
- . Resource pool description
- . Organizational policies
- . Activity duration statement

Activity: How is it done?

[Tools & Techniques]

• Expert judgment

- Alternative identification
- Project management software



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Project Cost Management

- Cost Estimating



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Project Cost Management

- Cost Budgeting





Project Cost Management

- Cost Control





Project Quality Management

Includes processes required to ensure that the project will satisfy the needs for which it was undertaken.





Project Quality Management

- Quality Planning





Project Quality Management

- Quality Assurance





Project Quality Management

- Quality Control





Ref. Page 107 **Project Human Resource Management**

Includes processes required to make the most effective use of the people involved in the project.





Ref. Page 108 Project Human Resource Management

- Organizational Planning





Ref. Page 112 Project Human Resource Management

- Staff Acquisition




Ref. Page 114 Project Human Resource Management

- Team Development





Ref. Page 117 Project Communication Management

Includes processes required to ensure timely and appropriate generation, collection, dissemination, storage, and ultimate disposition of project information.





Ref. Page 119 Project Communication Management

- Communication Planning





Ref. Page 121 Project Communication Management

- Information Distribution





Ref. Page 122 Project Communication Management

- Performance Reporting





Ref. Page 125 Project Communication Management

- Administrative Closure





Project Risk Management

It is the systematic process of identifying, analyzing and responding to project risks.





Project Risk Management

- Risk Management Planning





Project Risk Management

- Risk Identification





Project Risk Management

- Quantitative Risk Analysis





Project Risk Management

- Quantitative Risk Analysis

Input: What you need to do the job?

- . Risk management plan
- . Identifies risks . List of risks for management and additional analysis . Historical information . Expert judgment

. Other planning outputs

Activity: How is it done?

[Tools & Techniques]

- Interviewing
- Sensitivity analysis
- Decision tree analysis
- Simulation





Project Risk Management

- Risk Response Planning





Project Risk Management

- Risk Monitoring and Control



checklists



Ref. Page 147 **Project Procurement Management**

It includes the processes required to acquire goods and services, to attain project scope, from outside the performing organization.





Ref. Page 149 Project Procurement Management

- Procurement Planning





Ref. Page 153 Project Procurement Management

- Solicitation Planning





Ref. Page 156 Project Procurement Management

- Solicitation





Ref. Page 155 Project Procurement Management

- Source Selection





Ref. Page 156 Project Procurement Management

- Contract Administration

Input: What you need to do the job?

- . Contract
- . Work results
- . Change requests
- . Seller invoices

Activity: How is it done?

[Tools & Techniques]

- Contract change control system
- Performance reporting
- Payment system





Ref. Page 158 Project Procurement Management

- Contract Closeout





Ref. Page 31 Project Management Process Groups - Phases







Planning Processes

Planning Processes





Planning Processes

- Facilitating Processes





Mapping of Management Processes to the Process Groups and Knowledge Areas

Process Groups =>	INITIATING	PLANNING	EXECUTING	CONTROLLING	CLOSING
Knowledge Areas					
4. Integration		4.1 Plan Development	4.2 Plan	4.3 Integrated Change	
Management			execution	Control	
5. Scope	5.1 Initiation	5.2 Scope Planning		5.4 Scope Verification	
Management		5.3 Scope Definition		5.5 Scope Change	
				Control	
6. Time		6.1 Activity Definition		6.5 Schedule Control	
Management		6.2 Activity			
		Sequencing			
		6.3 Activity Duration			
		Estimating			
		6.4 Schedule			
		Development			
7. Cost		7.1 Resource Planning		7.4 Cost Control	
Management		7.2 Cost Estimating			
		7.3 Cost Budgeting			
8. Quality		8.1 Quality Planning	8.2 Quality	8.3 Quality Control	
Management			Assurance		
9. HR		9.1 Organizational	9.2 Team		
Management		Planning	Development		
		9.3 Staff Acquisition			
		_			



Continued

10. Communication Management	10.1 Communication Planning	10.2 Information Distribution	10.3 Performance Reporting	10.4 Administra tive Closure
11. Risk Management	11.1 Risk Management Planning 11.2 Risk Identification 11.3 Qualitative Risk Analysis 11.4 Quantitative Risk Analysis 11.5 Risk Response Planning		11.6 Risk Monitoring & Control	
12. Procurement Management	12.1 Procurement Planning 12.2 Solicitation Planning	12.3 Solicitation 12.4 Source Selection 12.5 Contract Administration		12.6 Contract Closeout

You can download an older version of PMBOK (1996 Edition) and a set of presentation slides from Nutek site: <u>http://Nutek-us.com/PMBOK_1996.pdf</u> and <u>http://Nutek-us.com/PMBOK_Slides.pdf</u>



Ref. Page N/A Project Management Process Group Activities



Project Management Processes Groups and Knowledge Areps (39 Activities)

Process Groups => Knowledge Areas	INITIAT ING	PLANNING	EXECUTING	CONTROLLING	CLOSI NG
4. Integration		4.1	4.2	4.3	
5. Scope	5.1	5.2 5.3		5.4 5.5	
6. Time		6.1 6.2 6.3 6.4		6.5	
7. Cost		7.1 7.2 7.3		7.4	
8. Quality		8.1	8.2	8.3	
9. HR		9.1 9.3	9.2		
10. Communication		10.1	10.2	10.3	10.4
11. Risk		11.1 11.2 11.3 11.4 11.5		11.6	
12. Procurement		12.1 12.2	12.3 12.4 12.5		12.6



End of another Good Learning Day *Ref. Page N/A*



