# Knowledge Areas, Process Groups, and Processes-Oh, My!

By Cornelius Fichtner, PMP

One of the most discussed tables in the Project Management Institute’s (PMI), *A Guide to the Project Management Body of Knowledge, (PMBOK*® *Guide*) *Fifth Edition* is the “Project Management Process Groups and Knowledge Areas Mapping” matrix, found in Table 3-1 on page 61. This table maps the 47 project management processes to their corresponding Knowledge Area, as well as to their corresponding Process Group.

At first glance, the table seems quite complicated, so let’s break it down and uncover why a solid understanding of the relationships between processes, Process Groups, and Knowledge Areas is important to anyone preparing to take the Project Management Professional (PMP) ®exam. It’s so important, in fact, that we suggest you memorize this matrix and the relationships it calls out. Memorizing the table will prove to be a valuable asset to you during your PMP Exam.

Let’s start with the building blocks of the matrix-***what is a process?*** At its most basic level, a process is simply a way of transforming an input into an output using proven tools and techniques. The *PMBOK*® *Guide* defines a process as “a set of interrelated actions and activities performed to achieve a specified set of products, results, or services.” Good processes-based on sound principles and proven practices-are extremely important for a project’s success. Processes, like a roadmap, keep the project going in the right direction; they can also help minimize confusion and uncertainty among the project manager and the project stakeholders and can help drive progress from start to finish. The *PMBOK*® *Guide* identifies 47 processes that are instrumental to project success.

The overarching piece of our matrix are the **Knowledge Areas**. Each Knowledge Area is made up of a set of processes, each with inputs, tools and techniques, and outputs. These processes, together, accomplish proven project management functions and drive project success. Thus, the Knowledge Areas are formed by grouping the 47 project management processes into specialized and focused areas. Knowledge Areas also assume specific skills and experience in order to accomplish project goals.

The *PMBOK Guide* currently recognizes 10 Knowledge Areas, each of which includes a detailed description of the processes associated with that area. These Knowledge Areas are Project Integration Management, Project Scope Management, Project Time Management, Project Cost Management, Project Quality Management, Project Human Resource Management, Project Communications Management, Project Risk Management, Project Procurement Management, and Project Stakeholders Management *(added in the Fifth Edition)*.

So, ***where do Process Groups fit in?*** The 47 processes are also grouped into five categories: 1) Initiating, 2) Planning, 3) Executing, 4) Monitoring and Controlling, and 5) Closing. These groupings reflect the logical integration and interactions between the individual processes, as well as the common purposes they serve. That is, the Process Groups band together the project management activities that are relevant to each project phase and provide a means for looking at best practices within one Knowledge Area at a time. For example, in the Initiation Process Group, you’ll complete the individual Initiation ***processes*** like defining scope, goals, deliverables, assumptions, limitations, etc., that make up the project charter. Within the Initiation Process Group, you would also complete all activities and processes for identifying project stakeholders. Similarly, processes required to track, review, and regulate the progress and performance of the project are all included in the Monitoring and Controlling Process Group. So, processes with a common goal or theme are grouped together into a Process Group.

It’s important to remember that Process Groups are not the same as project phases-most projects are comprised of multiple subprojects or phases, and you’ll likely repeat each of the Process Group activities within each project phase or subproject.

***Why do we group processes like this?*** One way to think about this is that the Knowledge Areas encompass what the Project Manager needs to *know*, while the Process Groups describe the actions the Project Manager (and team) needs to *do*. Or, put another way, Knowledge Areas are about knowledge on project management topics, while Process Groups seek to apply that knowledge. They provide a logical sequence of steps within the Knowledge Area.

Every one of the 47 processes can be mapped to one Knowledge Area and one Process Group, identifying the proven project management principle(s) behind the process, and at the same time providing the means to accomplish it. As you study the processes within each Knowledge Area, it’s helpful to remember that the processes have a logical connection across the knowledge areas, so try to focus on that, rather than solely trying to memorize which process goes where.

So, ***why do I need to know this for the Project Management Professional (PMP)*® *Exam?*** Recognizing the interdependent nature of the development lifecycle is critical to effective project management. As a project manager, you’ll need to be able to identify ways in which the process groups interact with each other through the life of your project. Execution within some of the Knowledge Areas and processes will accomplish some project objectives directly; delivering on other Knowledge Areas provides a method to achieve other objectives.

Because the project management processes, Process Groups, and Knowledge Areas span the entire project lifecycle, questions discussing their relationships appear frequently in the PMP® Exam. Remember that the Knowledge Areas focus on what the Project Manager needs to *know*, while the Process Groups describe the actions the Project Manager (and team) needs to *do*. Understanding and memorizing the hierarchical and yet interdependent relationships between the Knowledge Areas (strategy), the Process Groups (steps), and the building blocks (processes) will help you during the PMP exam. Most exam takers use the first 5 minutes of their exam time to draw this table onto an empty sheet of paper (from memory!), so that they can use it as a reference in answering their 200 exam questions.

About the author: Cornelius Fichtner, PMP, CSM is a noted PMP expert. He has helped nearly26,000 students prepare for the [PMP exam](http://www.project-management-prepcast.com/) with The Project Management PrepCast and offers what is probably the best [PMP exam simulator](http://www.pm-exam-simulator.com) on the market.

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**Summary:**

This article will help you gain a better understanding of the relationships between the *PMBOK*® *Guide* Processes, Knowledge Areas, and Process Groups. Learn why a solid understanding of these relationships is critical to any project manager.

**Keywords:**

PMP, PMP Exam, Project Management Professional, PMBOK, Process, Process Groups, Knowledge Areas

**About the Author:**

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By Cornelius Fichtner, PMP, CSM - Making the [*PMBOK*](http://www.pm-exam-simulator.com/)*® Guide* fun.

Thank you.

An image of the Author can be found at
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