WE SHOULD NOT BE surprised when failure is the fruit of poorly-defined, ill-planned, and arbitrarily executed efforts. In the play “King Lear,” Shakespeare writes, “Nothing will come of nothing.” Projects are not exempt.

Project management methodology provides the best possible framework for project success. Although all project management environments (software development, construction, defense acquisition, etc.) have unique qualities, they share more commonalties than differences. It does not matter whether you are a practitioner, mid- or senior-level manager. If we are not all dancing the same steps, success is difficult — if not impossible — to achieve. We may get the job done. However, it may not be fun, we may not look good, and we may not be able to call it successful.

Definitions
A project is “a temporary endeavor undertaken to create a unique product or service”[1]. Management generally is concerned with producing key or necessary results. Methodology defines how the project is managed without impacting the effort's uniqueness. If we can define a common project management methodology, communicate it to those we work for and with, and implement it consistently, we will be on the way to reducing risk and actualizing success.

Since 1969, the Project Management Institute (PMI), a nonprofit organization consisting of practitioners and academics, has led the way in researching, organizing, and recording project management methodology. The culmination of its efforts is a work-in-progress, the Project Management Body of Knowledge (PM BOK). The PM BOK model is a structured identification of the skills, concepts and techniques common to the project management field. It is a description of the knowledge and practices commonly found in projects and not a formula to be uniformly applied to all projects. PMI also maintains a professional certification for project managers: the Project Management Professional (PMP). The PM BOK model is widely recognized as the commercially proven and accepted standard for project management. You can download a free copy at http://www.pmi.org/publictn/pmboktoc.htm.

This article will present a basic outline of PMI’s model for project management.

The PMBOK model presents three primary dimensions of project management. These are the lifecycle, the process groups, and the knowledge areas. Each dimension is unique, although related and interdependent.

Life Cycle
The project life cycle is the big picture. The life cycle divides the project into a series of phases which provides better project control. The four common phases in a project life cycle are concept, development, implementation, and termination or closeout.

Phases are easy to recognize. The delivery or completion of a major deliverable usually characterizes the end of a phase. For instance, a feasibility study or architectural design might conclude the conceptual phase. The developmental phase might conclude with the project plan. The implementation phase would conclude with the completion of the product or service. Termination might conclude with the customer sign-off, completion of a lessons learned database, and collection of any historical documentation. By treating each phase as a project, we separate complex projects into more manageable pieces.

Process Groups
The five process groups are initiation, planning, executing, controlling, and closing. They are “concerned with describing and organizing the work of the project. ... The process groups are linked by the results they produce — the result or output of one becomes an input to another” [1]. Figure 1 represents how the five processes relate.

The following is an example of what the processes would look like for an actual project. A customer decides he wants to make a change in the product’s requirements and the project’s production/development is 50 percent complete. Initiation begins with the customer’s request. However, the initiating process directs us to document our customer’s requirements and plan for the next phase.
request, perform an impact analysis, and meet with the customer to exchange expectations.

During planning, we revise schedules, budgets, and other related documents (scope, work breakdown structure, and risks) that make the new requirement part of the project. In this example, executing and controlling are not significantly impacted by our requirements change. The product is built based on our new set of requirements, and measures would be used to direct corrective action as needed. Closing ensures that the customer’s request to change requirements was documented to conclusion.

**Project Processes/Knowledge Areas**

At its most detailed level, PM BOK defines nine unique but often overlapping project areas. The four primary knowledge areas are scope, time, cost, and quality. The four facilitating areas are human resources, risk, procurement, and communication. The remaining overarching area is integration. Integration is concerned with properly coordinating the other knowledge areas. Each knowledge area consists of a series of processes.

Each process includes inputs, tools and techniques, and outputs. (Figure 2.)

**About the Author**

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