

WHAT IS SPM?

Software project management is the art and science of planning and leading software projects. It is a sub-discipline of project management in which software projects are planned, implemented, monitored and controlled.

I would like first to explain what is a project and after a software project.

Project

A project is well-defined task, which is a collection of several operations done in order to achieve a goal (for example, software development and delivery).

A project can be characterized as:

- Every project may has a unique and distinct goal.
- Project is not routine activity or day-to-day operations.
- Project comes with a start time and end time.
- Project ends when its goal is achieved hence it is a temporary phase in the lifetime of an organization.
- Project needs adequate resources in terms of time, manpower, finance, material and knowledge-bank.

Software Project

A Software Project is the complete procedure of software development from requirement gathering to testing and maintenance, carried out according to the execution methodologies, in a specified period of time to achieve intended software product.

Need of software project management

Software is said to be an intangible product. Software development is a kind of all new stream in world business and there's very little experience in building software products. Most software products are tailor made to fit client's requirements. The most important is that the underlying technology changes and advances so frequently and rapidly that experience of one product may not be applied to the other one. All such business and environmental constraints bring risk in software development hence it is essential to manage software projects efficiently.



The image above shows triple constraints for software projects. It is an essential part of software organization to deliver quality product, keeping the cost within client's budget constrain and deliver the project as per scheduled. There are several factors, both internal and external, which may impact this triple constrain triangle. Any of three factor can severely impact the other two.

A software project management is managed by a software project manager (person who undertakes the responsibility of executing the software project). Software project manager is thoroughly aware of all the phases of SDLC that the software would go through. Project manager may never directly involve in producing the end product but he controls and manages the activities involved in production.

A project manager closely monitors the development process, prepares and executes various plans, arranges necessary and adequate resources, maintains communication among all team members in order to address issues of cost, budget, resources, time, quality and customer satisfaction. In brief, the software project manager is in charge of the people who work on the project and the project itself.

Why do we need to manage a software project?

The purpose of project management is to identify the scope of the project, estimate the work involved, and create a project schedule. Project management begins with requirements that define the software to be developed. The project plan is then developed to describe the tasks that will lead to completion.

The purpose of project monitoring and control is to keep the team and management up to date on the project's progress. If the project deviates from the plan, then the project manager can take action to correct the problem. Project monitoring and control involves status meetings to gather status from the team. When changes need to be made, change control is used to keep the products up to date.

References:

http://www.tutorialspoint.com/software_engineering/software_project_management.htm