What is Software Project Management (SPM)?

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Software Project Management

Abstract

This report aims to give a short definition of Software Project Management, and what is it, who does it, why is Important? What are the steps? What is the work product? How do I ensure that I have done it right?

Keyword: Software Engineering, Software Project Management.

Introduction

Software project management is an essential part of software engineering. Good management cannot guarantee project success. However, bad management usually results in project failure: The software is delivered late, costs more than originally estimated and fails to meet its requirements.
Software managers are responsible for planning and scheduling project development. They supervise the work to ensure that it is carried out to the required standards and monitor progress to check that the development is on time and within budget. We need software project management because professional software engineering is always subject to organizational budget and schedule constraints. The software project manager's job is to ensure that the software project meets these constraints and delivers software that contributes to the goals of the company developing the software.
Software managers do the same kind of job as other engineering project managers. However, software engineering is different from other types of engineering in a number of ways.

1. **What is it?** Although many of us (in our darker moments) take Dilbert's view of "management," it remains a very necessary activity when computer-based systems and products are built. Project management involves the planning, monitoring, and control of the people, process, and events that occur as software evolves from a preliminary concept to full operational deployment.

2. **Who does it?** Everyone "manages" to some extent, but the scope of management activities varies among people involved in a software project. A software engineer manages her day-to-day activities, planning, monitoring, and controlling technical tasks. Project managers plan, monitor, and control the work of a team of software engineers. Senior managers coordinate the interface between the business and software professionals.

3. **Why is it important?** Building computer software is a complex undertaking, particularly if it involves many people working over a relatively long time. That's why software projects need to be managed.

4. **What are the steps?** Understand the four P's— people, product, process, and project. People must be organized to perform software work effectively. Communication with the customer and other stakeholders must occur so that product scope and requirements are understood. A process that is appropriate for the people and the product should be selected. The project must be planned by estimating effort and calendar time to accomplish work tasks: defining work products, establishing quality checkpoints, and identifying mechanisms to monitor and control work defined by the plan.

5. **What is the work product?** A project plan is produced as management activities commence. The plan defines the process and tasks to be conducted, the people who will do the work, and the mechanisms for assessing risks, controlling change, and evaluating quality.

6. **How do I ensure that I've done it right?** You're never completely sure that the project plan is right until you've delivered a high-quality product on time and within budget. However, a project manager does it right when he encourages software people to work together as an effective team, focusing their attention on customer needs and product quality.

References

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