### **Software Project Management**

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### **Abstract**

Current backward situation of software industry in China, in fact is not the technology itself, it's a matter of scientific management. In this project more concurrent, high technical content, change speed, limited resources, environment, how to implement scientific management for enterprise, projects, resources, strengthen the team ability, realize the software enterprise's production scale, standardization and internationalization, is one of the biggest challenges facing the current our country software industry

### 1.Introduction

Software project management is based on the theory of management science, combines the actual conditions of the software product development, ensure the smooth implementation of the engineering system development method of management practice, in order to make the software project can according to the predetermined cost, schedule and quality successfully completed, and the cost, personnel, progress, quality, risk, such as document analysis, management and control of a series of activities. In fact, the meaning of the software project management not only so, software project management makes the developers ability of personal development into development of the enterprise,

enterprise software development ability is higher, indicated that the enterprise software production is tend to mature.

## 2.The purpose of project management

The purpose of software project management is to make the software project can according to the scheduled cost, schedule and quality successfully completed. Decided to a software project implementation success, software project management plays a decisive role, software project management has been recognized as one of the core competitiveness of the software development enterprise

# 3.The essence of software project management

- (1) the reasonable organization of human resources. Man is the most critical in determining the quality of software development, and the most active and the most difficult factors to control. Attention should be paid to the following principles: reasonably equipped, each of them; To carry out the responsibility, equilibrium; communication; Timely Cultivate team spirit; Promote moral level and regulate professional behavior.
- (2) the development of standardization. Software development needs to be implemented in strict accordance with the

software specifications, from the project of the user requirement analysis, system analysis, coding, debugging, testing, and release all needs to be done step by step, the project start, the more attention should be paid to be carried out in accordance with the specification.

- (3) careful planning. All the resources and distribution of work was carried out in accordance with the project plan and implementation, management personnel according to project plan to track and monitor the progress of the project, so reasonable, accurate, detailed project plan is the basis of project management. Effective planning is beneficial to enhance the team members sense of urgency, reduce the waiting time for each other.
- (4) effective control. Project including the schedule control, cost control, quality control, risk control, etc., the specific control measures include: weeks milestone, weekly report, report, submit audit, process audit, audit, risk tracking, etc.
- (5) rigorous testing. Software testing is an important link in software development, is also the important method and means to ensure software quality. Through the test, confirm the quality of software product has obtained and can meet the demand of users in all kinds of quality; Find errors, correct mistakes, to prevent mistakes in delivery of the user operation exposed, losses to users and the development organization; Accumulate experience, perfect design, improve the skills of software developers.
- (6) good information communication. Communication is the foundation of supervision, control, and is the basis of the project execution, but also reduce conflict. Project manager periodically report to

management and agency customer project technology, progress, cost, quality status; Fully representative organization in front of customers, with customers to establish and maintain а friendly relationship with open, directly to the customer's project manager is the most key point of contact customer and organization; The driver of a project communication, avoid project in the stem communication; Actively conditions for the project communication, including concentrated work; Ensure that all high efficiency of the meeting.

### 4.A Software Project Plan

Software project plan the main work includes: determine the scope of the detailed project implementation, define work submitted, assessment in the process of the implementation of the main risk, project implementation plan to time, cost and budget plan, human resource planning, etc.

Software project management process from the beginning of the project planning activities, and the first project activity is to estimate: how long will it take, how much workload, and how many developers need. In addition, you must estimate the required software and hardware resources and may involve risk.

For a software project manager, his goal is to define all project tasks, identify key tasks, tracking the progress of the key tasks, to ensure timely find schedule delays. Therefore, project managers must make a detailed enough

Schedule, in order to monitor project progress and to control the whole project. Schedule is the priority of software project plan, the project plan is the first part of the software project management. Project plan is an important output software project plan, the plan should be described in the software development schedule, resource requirements, project management, their content, and are issued to the developer of each related personnel, make them understand the basic situation of software project. For each content of plan, should have the corresponding implementation manual, the manual is the operation of the project team members to complete their related work guide.

#### 5.Conclusion

In recent years, project management has been developing, refined into a universal law science theory model, how the appropriate use of this theory to the actual activity, suitable for а software development project management standards, procedures, processes, templates, and with the help of the appropriate management tools to manage, to the success of a software project is very effective.

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