Project Management Method of Computer Software Engineering

陈涛 2020330301004

Abstract: With the rapid development of society, people use computers more and more widely, and there are more and more computer software engineering projects, but the development of computer software is more complex, involving a wide range of risks, in view of these problems, people put forward the computer software engineering project management. This paper discusses the importance of computer software engineering project management, this paper analyzes the problems existing in the process of computer software project management, the management method of computer software engineering project is put forward, for reference.

Key words: Computer; Software engineering; Project management

1. Introduction

The rapid development of science and technology has brought a lot of convenience to people's life, and the application of computer software has pushed this convenience to a climax. With the advent of the information age, such as remote office, online learning and scanning code payment, people are more and more interested in computer software projects. Although computer software projects are convenient for people's lives, the difficulty and hidden risks of software development are also increasing. In the process of development, many unexpected problems are encountered. In order for the computer software to better serve the people and coexist with the society in a more stable way, we put forward the computer software project management.

2. The elaboration of computer software engineering project management

In the case of computer software, it is done by compiling a program document on the computer, and then entering the computer program into the designed machine. When the machine recognizes the computer program, it will start to work. The computer document is usually an interpretation of the code, mainly for the operator to read. Computer software can be divided into three parts, namely, the overall narrative, the internal software of the system and the external display application software. The internal software of the system is to meet the basic conditions of computer work, and the application software is a form of expression in which the user sets different functions for the machine through the computer and shows them. Computer software engineering project management is to entrust computer software engineering to a company specialized in project management, and sign a corresponding contract with it, allowing the entrusted project management company to represent the owner to carry out reasonable intervention in computer software engineering. For general engineering project management companies will not directly with computer software projects

Most of the contracts signed by the contractor company are signed by the intermediate owner with the contractor company, design unit, survey unit and other units. Then the project management company has the right to supervise the contractor company according to the contract to ensure the completion of the computer software project on time and in quality and quantity.

3. The importance of computer software project management process

The process of computer software project management is mainly divided into two aspects :(1) according to the predetermined plan to ensure the saturation of project cost, the normalization of project progress, the pass rate of project quality, and the controllability of project risk. (2) Eliminate the interference factors in time. Reasonable arrangement of computer software development project The stages need the number of professionals, prevent the stages in the development process of development cost budget and ensure project progress as planned, achieving the optimal quality, the item in a timely manner to eliminate existed in the development of project risk and the potential risk of the application process, Address these risks in a timely manner and strengthen software defenses. The main management factors of computer software project are the application scope of computer software, the prediction of the frequency of software use and the existing risks, and the related problems of resource allocation of computer software project. Computer software project management and other project management need the combination of many aspects and personnel management.

4. Problems existing in the process of computer software project management

4.1 Requirements for computer software projects before they are developed

At the beginning of the development of computer software projects, we should actively communicate with customers to clarify the basic requirements, functional Settings and scope of use of computer software projects, so as to ensure that the designed computer software projects are consistent with the requirements of customers, and then carry out the development of computer software projects. Before the development of computer software projects, we often ignore the investigation and research on the market of software projects. In addition, there are many kinds of computer software in real life, and the public needs are complicated. Customers themselves cannot accurately demand the functions of computer software. It is also difficult for developers to know what customers really think about computer software projects, so there are two understandings of software development between developers and customers. The developed software cannot satisfy customers, which leads to communication conflicts between customers and entrusted development companies. In order to solve such problems, contracting and development companies should realize accurate positioning according to customers' demand for software before project development and send professionals to conduct in-depth investigation, so as to develop software that meets customers' needs while ensuring the quality of computer software development. Therefore, it can be seen that the project management of computer software has very important significance for the development and application of computer software.

4.2 Requirements for computer software projects before they are developed

The rapid development of information technology in today's era, so the difficulty and complexity of computer software development are relatively high, involving a wide range, the corresponding amount of work is very large. Nowadays, the development of computer software projects requires the coordination and cooperation of many people, so in order to complete the task of computer software development, the management of personnel is very important. To ensure that

computer software projects are on schedule and completed at a high level and with high quality, reduce the turnover of staff in the computer software development team by providing an enthusiastic and positive working environment for staff. To promote the harmonious coexistence of computer software development staff, software project management staff and other working departments, with the goal of software engineering development progress and comprehensive quality. In order to better manage the staff related to the project, it is necessary to establish the corresponding reward and punishment system and promotion system, formulate the corresponding system and evaluation system, and improve the enthusiasm of the staff at various levels. Not only can exercise the software development project related staff, but also improve the company's management system, improve the comprehensive quality of computer software project development, to a certain extent, reduce the comprehensive cost of software development, improve the comprehensive benefits of computer software project.

4.3   Requirements for computer software projects before they are developed

In a computer software project development in the process of the need to strengthen the comprehensive control of computer software project, increase the communication between the company and customers, and according to customer demand for software, slight adjustment in the process of development, strict control in the process of the computer software development need time and cost, risk and quality requirements. Timely complete the relevant development of computer software projects according to the original plan, eliminate large mistakes in any development link, timely report and deal with problems and risks found, ensure the perfect completion of computer software development related work, and reduce the degree of defects and risks in the development of computer software. Update and maintain the software regularly, monitor in time, troubleshoot and solve problems.

4.4   Risk in the process of computer software project development

There are many uncertain risk factors in the process of computer software project development, and some risks may directly lead to the overall paralysis of computer software. So it is very important to reduce the risk of computer software project development. In order to solve the above problems, the corresponding software risk warning system should be established during the development of computer software projects to prevent the occurrence of destructive risks. Hold regular project meetings, timely report the project development and the current operation of the project, implement real-time control, real-time transfer and real-time solution of the discovered risks, and ensure the highest quality of the project under the condition of ensuring the overall economy of the computer software project.

4.5   Risk in the process of computer software project development

In the process of computer software development, project management has a very important role for the development of the software, but because of different professional, working personnel of different levels, resulting in a computer software project management team personnel ratio imbalance, and therefore there will be a series of factors, which affect the work, For example, in the process of development, the division of labor among staff is more difficult than before, and the abnormal state of "alternating drought and flood" appears, which reduces the enthusiasm of

employees in the company, increases the contradiction between staff, and is very easy to rise to the contradiction of the development team, which greatly affects the overall work efficiency and the enthusiasm of employees. It reduces the process and overall quality of computer software project development [5]. In order to solve the above problems: first, in the early stage of the computer software project, different staff should be assigned according to the specific situation of the project to form a team, as far as possible to ensure that each member of the team can play their strengths; Secondly, the company should have a special coordination team department, to maximize the realization of uniform distribution, and formulate a reasonable working mode, ability and salary linked mode, the able to work more, those who can earn more, to maximize the overall harmony of the development team, so as to ensure the smooth progress of computer software projects.