

Software Development Processes

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Abstract

The advanced manufacturing mode requires that information integration and function integration run through every stage of the product life cycle, and the integration of the function needs the support of the software system, so as to promote the realization of advanced manufacturing mode. Software development process is the key element to build a software solution. In this paper, we discuss two main methods of process development, object oriented method and structured method.

Keywords: Object-oriented methods
Structured approach
Software development process

1 Software development process and system

The software can be divided into intelligent software, system software and application software in two areas. from

Used in different software development knowledge, so as to form the respective force method.

Although, intelligent software and application software belong to different fields, but the smart software and Application

Software is computer software. The basic elements of the construction of software system composed of a solution to two key interrelated:

- 1 software engineering process
- 2 software engineering process support environment
- 3 training, guidance and counseling services.

Watts Humphrey once said, "the software engineering process is the customer demand. All activities must be set for the transformation of software products". In the case when the first solution, the impact factors and is also the most important is the process.

2 The current mainstream software development methods

2.1 Structured force method

1960s, around whether to cancel the goto statement, the people started

A fierce debate. In the end, people realize that the solution to the problem of software development is not only simply cancel the goto statement, but should change the traditional thinking of software development

Read, create a new program design force method based on this. The result of the debate over the goto statement has formed a new concept of thinking: Writing, Procedures, in the correct realization of the premise of the software function, we must take into account the importance of maintainability, readability, clarity and intelligibility of the program, but not your heart want to go too far to the pursuit of programming skills. Due to the use of two kinds of basic program structure (sequence, selection and circulation) composed of history. Order has a good readability, clarity and intelligibility, easy to maintain, so gradually. A program structure flow standard benson. In accordance with such a new concept of thinking. The new program design force one method one method, the structural program design force

one method, the structural program design. According to the principle of structural programming, the function of each module is controlled by the corresponding standard. Structure table does not come out, so as to realize the detailed design.

2.2 Object-oriented method

Object oriented software development method including a force to force an object analysis method. It is generally believed that the software is composed of programs and documents, and the program is composed of data structure and method, in the traditional programming force method, data and application. Data on the operation is separated into two separate parts, and the program is seen as a set of processes or functions that work on a series of data, but the reality of the objective world. Body both static attributes, and dynamic behavior (that is, the operation of the data), so this two forces one and the content is closely related, because the traditional program design force one method will be the two force -And the contents of the separation, the problem of deepening the problem space and the solution space between the cracks, increase The difficulty of software development.

Instead, the following points are the following: the objective world is composed of a variety of objects. (Object) the composition of complex objects can be composed of simple objects. Have common attributes. A group of objects that are a method of force one is abstracted to a class CClass. A class (Zi Lei) can Inherited another class (parent) of the law and the property, which is called inheritance. Communicate by passing messages between images.

2.3 Formal method

With the development of technology, more and more computer software is being used to

implement those. Can lead to serious consequences and even life-threatening tasks, such as the launch of the spacecraft, iron Road safety monitoring and nuclear reactor monitoring and other tasks, the software complexity of these systems is far. More than the general software, how to increase the complexity of the software can still ensure that the software. The result is safe and reliable, and a way to achieve this is to use the. Formula one method. The formal method in software engineering is to describe and calculate by mathematical model and calculation. Verify the behavior and characteristics of a target software system, including requirements specification, design and practice. Now, the characteristics of formal method is based on the fundamental mathematical basis of strict, if a force method has a good mathematical basis (the basis for providing a series of precise definitions.

Concepts, such as consistency and completeness, as well as the realization and correctness of the specification, Then it is formal, and is given in the formal specification language. Formal force method can solve the question of the two meanings which often appear in the software development. If a problem, because the law Bian symbol system form, this system has a certain symbol

Mathematical property. The formal force method has its disadvantages, the first is the mathematical tools and modules that are used in the specification. Type specification does not guarantee absolute correctness and security; second is for any species. The standard, in its basic mathematical significance under the different engineering background, and is not. There is only one explanation. Of course, these are not two of the problem, but in different areas of the rules. Fan's explanation and compatibility problems.

3 The key technology points

Technology, the use of Microsoft's latest database 8QI, 20080 first set up. Code of the middle and small class library (headquarters has provided the corresponding Excel file, you can directly import the number. According to the library system, the small class of encoding for the first management, that is, for each of the categories, in the class or subclass distribution of the corresponding management and procurement Bian chamber and the planner to implement -Management; the use of units in the middle of the report, the only choice of large and small libraries in the code of the code to carry out the. Mid year report to the formation of the newspaper business and the first time to check the management. The second step, the establishment of commonly used encoding library. The entire encoding library data is very large, but the corresponding to the different areas of the enterprise, its commonly used encoding data level is not very large (for wood enterprises, about 200 thousand); therefore, the establishment of a common encoding library is available. The use of units in the report code, by purchasing planner of Bian canal encoding please, Planners can be artificial in the enterprise commonly used in encoding search (the system can also automatically. If the new encoding in the commonly used encoding library, it is not allowed to please. In addition, if the formal completion of the new encoding.

4 System implementation effect

Through the implementation of encoding management system, the most advanced management concept can be implemented to the whole enterprise to get rid of the manual to raise the random nature of encoding and non-standard, and truly realize the enterprise Encoding modern management. The encoding management system is based on the

headquarters of encoding and FRP.

To carry out the encoding report, the core, query, maintenance of the work platform, to all the material.

5 Conclusion

The development of computer and network technology and its application in manufacturing industry have a lot of new manufacturing models, such as concurrent engineering, agile manufacturing and global manufacturing. These new modes. The design and management of the life cycle of the product are put forward. The force of a method and object oriented method is a software development process today to force a Bian law. To carry out the idea of "functional decomposition", which is a progressive refinement of the top-down method, which is based on functional decomposition. The characteristics that make it less obvious. The law of the object force is an objective existence from the problem domain. Set out to construct the system, using objects as abstract tables for these things, and as the basic unit of the system, and to force a structured method and a method of force.

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