Risk Management and Quality Control

1. Risk management

It is difficult to measure the progress of the development and the quality of the algorithm, which makes the management of the algorithm difficult to grasp. There is no correct process form in the algorithm production process: it is certain that different algorithm development projects should adopt different or targeted algorithm development processes, while the real algorithm development process can only be understood after the completion of algorithm project development. Therefore, the beginning of project development can only be selected according to the characteristics of the project and development experience, and constantly adjusted in the development process

Large algorithm projects are often "one-time". The experience can be used for reference. The only way to avoid and control the risk of project management is to set up a supervision system. Any major decision in project development must have the main technical links, or even the participation of users. In this project, the project supervision is implemented by the quality supervision group in the project development, that is, members supervise each other.

There are 4 specific approaches for the team members to manage project risk:

1.1 Grasp the overall situation, focus on the business aspect of the project, and act as the interface link of formal communication between the project team and customers

1.2 In the phase of algorithm analysis, it helps analysts to define the boundary and function of the system, audit the algorithm of specific detection points, and put forward suggestions for test strategy and operation interface

1.3 Prepare algorithm quality control plan and be responsible for implementation; control the production of necessary documents, supervise the software quality in the process of project implementation through documents, and generate algorithm quality report for review by project manager and project leader; preside over and hold quality review meeting for problems in the project

1.4 Cooperate with the project leader to analyze and design the algorithm system and write the algorithm requirement analysis and system design related documents. In the algorithm implementation phase, the test strategy is compiled, and the performance test is guided

2. Quality control

2.1 Algorithm scalability

It refers to the ability of the algorithm to adapt to different working environments without stopping modifying. Due to the contradiction between the rapid development of the algorithm and the long development cycle of the algorithm, the need to upgrade the algorithm is very

urgent. If it is very difficult to upgrade and transplant the algorithm, the life of the algorithm must be very short, which makes the algorithm system developed with huge human and material resources useless.

Therefore, for major changes, it is only necessary to inherit the original algorithm, and then use virtual functions to replace the original calling interface, which will reduce the number of changes to the minimum

2.2 Algorithm ease of use

Algorithm ease of use is the key factor affecting whether the algorithm is accepted by users. In the algorithm products, the design is complex, the function is powerful and complete, but it is not uncommon to be shelved because of frequent operation.

The main reason is

(1) The lack of macro grasp ability of algorithm architecture in algorithm development.

(2) On the other hand, there is a lack of effective means to determine the algorithm requirements and mine the potential requirements