Automating Interface Control Documents Management To Determine And Report The Changes Of A Hardware And Software Interface Specification

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Abstract

Computer software development project is the key to success, is a high-quality software developers. In order to successfully complete the software development tasks, all members of the project team must interact and communicate in a meaningful and effective manner. For a large-scale software product development process, each stage requires a number of developers to work together, computer software engineering management organization of many types, such as the democratic system of programmers, the main programmer group organization, democratic decentralized Organization, control of decentralized organizations, control of centralized organizations and so on. In the actual project development, select the appropriate software development organization to ensure the harmonization of the whole group, is conducive to creating a strong academic atmosphere, give full play to each member of the project team's enthusiasm and initiative, brainstorming technical difficulties, improve development efficiency. Because the software development is a collective behaviour, it is the crystallization of collective wisdom, alone the strength of the individual cannot be completed, so the software development process, there will be a variety of functions of the staff involved in the project leader, the program Designers, training staff and management personnel, etc., in the actual development, because there is no clear different positions of specific responsibilities, a staff may have a few different work, but because of their limited capacity, cannot be better completed Responsible work

Keywords: Software engineering, management and application problems, data collection platform, electronic communication interface, design.

I Introduction

Computer technology is a more comprehensive and systematic technology, computer software engineering includes software development, management and maintenance and application of many aspects [1]. Computer software has been widely used in people's work and life, but with the continuous development of computer software, some problems also appeared, a very important issue is the level of computer software management did not meet the development of information technology standards. In the computer software development process appeared re-research and development of light management phenomenon, this phenomenon seriously affected the quality of the product [2-3]. In order to make his practical value fully play out, its management and application of the many problems in the existence of the inquiry is extremely necessary. So for software engineering, the specific work of what is it? Let's take a brief look at the following. Computer Software Development Process is shown in figure 1.
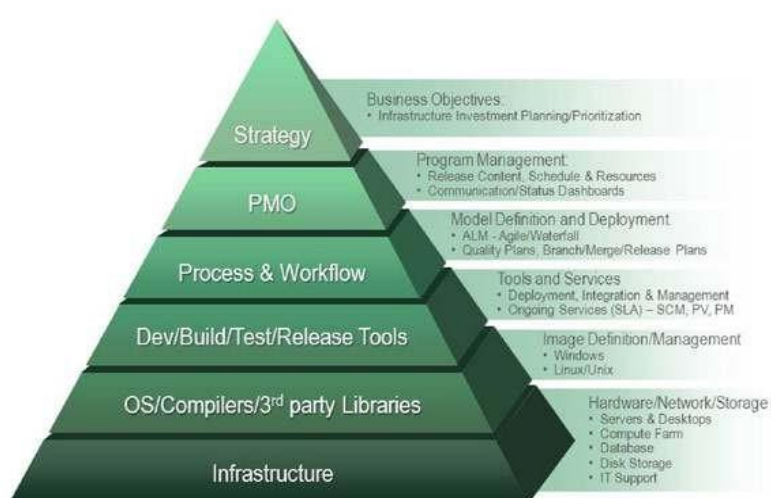
Figure 1 Computer software development process

II Related Works

Management is a systematic science. In the process of production, logistics and sales of modern economic society, scientific management is generally carried out by using computer network engineering. In order to achieve high efficiency and high yield goals, enterprises will accelerate the development and application of computer software engineering. Various state organs and institutions are also using computer software engineering to carry out business work. Therefore, it is very important to strengthen the scientific management of computer software engineering. Computer software engineering management is a systematic project, especially the computer software development project management, mainly in the following aspects. Figure 2 shows the computer software engineering management system.
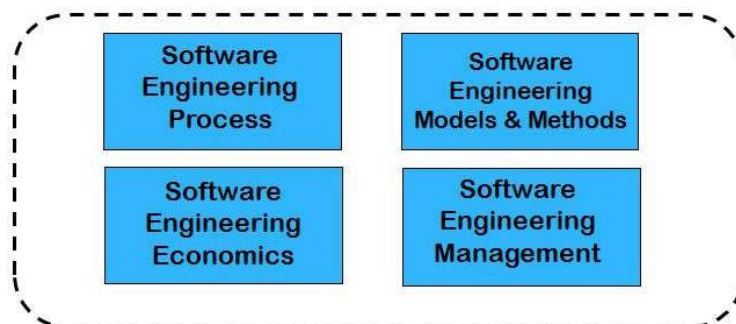
Figure 2 Computer software engineering management

2.1 Organizational Management

The management of computer software engineering organization is not a centralized management of software R & D personnel, but the importance of organizational structure integrity, division of labor clarity, so as to ensure the smoothness of information transmission.
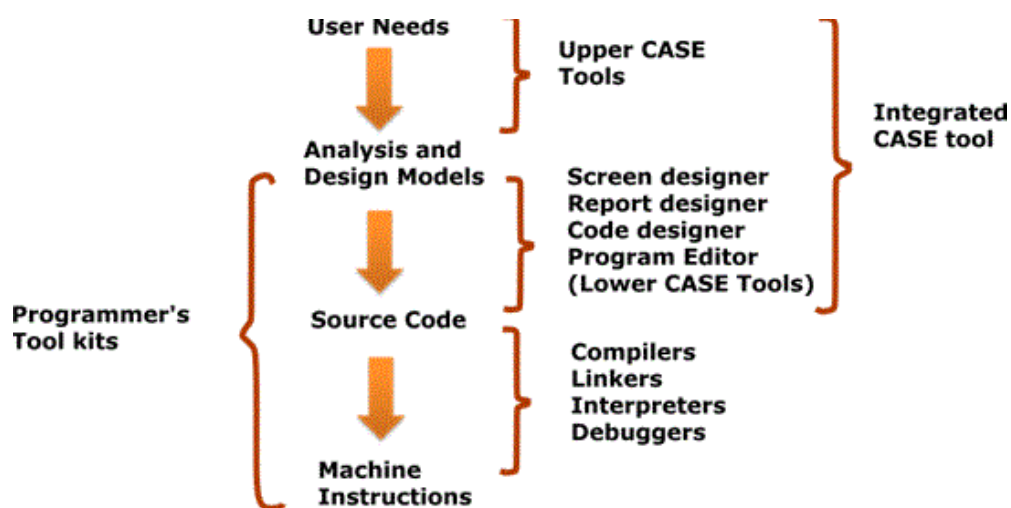
2.2 Software Developer Management

Software development can be said to be a highly demanding technology, the requirements of the staff is not just simply hit the code, but to engage in more advanced work. The staffs is the main body of software development, its own comprehensive literacy and professional skills can directly affect the development and application of computer software, so the overall quality of the staff is necessary to pay special attention to the content [4]. It not only requires staff to have a high level of professional knowledge and innovative thinking, but also need to have professional professionalism, it can be said that sometimes professionalism is far greater than the professional knowledge of the reserves. And what is the specific professional literacy? The most common and important thing is the spirit of cooperation [4-5]. In order to avoid this phenomenon, managers can be based on the order of software development, the staff according to the type of work into different groups, if a team lack of cooperation, then the team's work efficiency and innovation is limited , In such circumstances is not able to create a better programmer. Therefore, in the process of software engineering management, we must strengthen the team spirit to nurture, to play its greatest potential and vitality.

2.3 Software User Management

The ultimate goal of computer software development is to customer service, especially for customers to solve the problems in the use of work for software users to provide a comfortable and applicable experience. Software developers in the development process must attach great importance to user management, and users to maintain a good communication relationship, understand the needs of users to help users clear the project needs points, so that users willingly with their trust and support, the user's needs Change the timely feedback to the technical R & D personnel. At the same time try to avoid external interference factors on the development of software engineering adverse effects, to ensure that the final development

of the product will not deviate from the initial implementation goals [5]. The So enterprises in the software development time to consider this software project can bring what kind of user experience, you can solve the needs of users, any research and development point should rely on the user. So it requires companies to carry out a software project before the development of a market demand for the best research, through the collected data for demand analysis, so as to win the market opportunities, and this is only the first step in the software development process , And sometimes some enterprises in the completion of a software development will be anxious, directly listed, and often ineffective, the reason is not carried out user experience evaluation, did not collect the user's feelings and suggestions, no final modification and Perfect, so it will cause the effect of software after the general listing, did not achieve the desired results and goals. The goal of software engineering development is to help individuals achieve good job performance [6]. The management of the user is reflected in the subjective needs of customers, the positive factors into the software engineering development process. Software user needs is shown in figure 3.

Figure 3 Software user needs

2.4 Development Project Management

Software development is not a simple project, but a costly, energy and human, material and financial resources of a huge project. It requires the staff to devote themselves to the input. This requires the project management properly, for a word that is scientific management, reasonable arrangements. The main purpose of the project is to ensure the quality of software development and enhance customer satisfaction. Time to complete the software development tasks, the implementation of the software R & D implementation of management measures to ensure that software development projects on schedule to complete the required management measures [6-7]; Third, the cost of management, software development costs are accounted for, control and take a series of management Measures, is to achieve the economic protection of software R & D important guarantee. Cost management is to ensure that the actual cost of software development projects do not exceed the project budget, so that the project in the

budget on time, according to quality, cost-effective to complete the established objectives of the project management activities, the project can get the key to good economic benefits The Therefore, it is necessary to adjust the quality management and schedule management of the project in order to realize the cost control in the project. The series of measures of quality management will make the software project meet the needs of the users.

2.5 Collection of Relevant Archives and Confidentiality Management

Computer software contains too many information, involving a very wide, so the first to do a good job of data collection and analysis and file entry work. Do a good job in the management of archives cannot only timely look for the missing places, but also to facilitate the future development of the project. Second need to pay attention to is the confidentiality of relevant information. Whether it is business or national government departments, should do a good job of confidentiality. Computer systems, passwords and information systems are the most important work of confidentiality. People must pay attention to prevent the occurrence of secret leaks. Especially the national security, military research and production departments must develop strict confidentiality system, for the management and security personnel to conduct a rigorous assessment, in order to ensure the safety of computer software.

2.6 The Application of Computer Software Engineering

Computer software is rich in features, high efficiency, has been widely recognized by the community, the development of various industries on the computer software more and more dependent; game software, database software, e-mail and other traditional software has changed people's leisure mode, work Way and communication. Software development and application, has affected people's work, learning, shopping, travel and even diet. Such as the practicality of distance education software, to facilitate communication and communication between teachers and students in different places, to further optimize the teaching resources, reflecting the fairness of education; in addition to teaching, student files, student information can use computer software for storage and Records, not only the liberation of a large number of manual operation, improve the management efficiency, but also for information access, information mining provides a reference for the improvement of school teaching plan to provide the basis. Computer software in public places more and more obvious role, hospitals, banks, railways can be computer software for network booking, registration or payment, saving time and cost [7].

2.7 Application in Modern Enterprise Engineering Project Management

On the platform of great development of economic construction, the development of modern enterprises is based on the continuous updating of information technology, because with this development trend, information systems can inject new vitality into the development of enterprises, especially in the face of Information technology to produce a new business environment, enterprises should be timely and effective to develop a strong competitive strategy, so as to maintain a sustainable development of competitive advantage. Information system is used in the development of enterprises, whether it is enterprise development strategy or competitive process are combined with the advantages of information systems, it

compared to other technologies with unparalleled advantages, can be said to actively promote the development of enterprises The Information system coverage, making the application of science and technology more applicable and strong penetration capacity, combined with the general information system, so that the current layout of the development of science and technology in the process of science and technology to promote the economy and society The efficiency is relatively obvious, especially the rapid development of its speed, especially the shortening of the business execution cycle, reflecting the information system of high speed timeliness, reflecting the current stage of information systems on the development of enterprise economy has a positive role in promoting. The computer is used in the project management to show the actual use value, the combination of a variety of software to reduce the management of the cost, but also improve the efficiency of management, promote the project management system of human characteristics [8]. The use of two-dimensional three-dimensional mapping tool in the process, but also reflects the value of software engineering is used, the drawing of engineering drawings and engineering design and construction of the various processes through the computer software integrated screening, the fastest way to complete the work process, Scientific management project. Figure 4 shows the software engineer application.
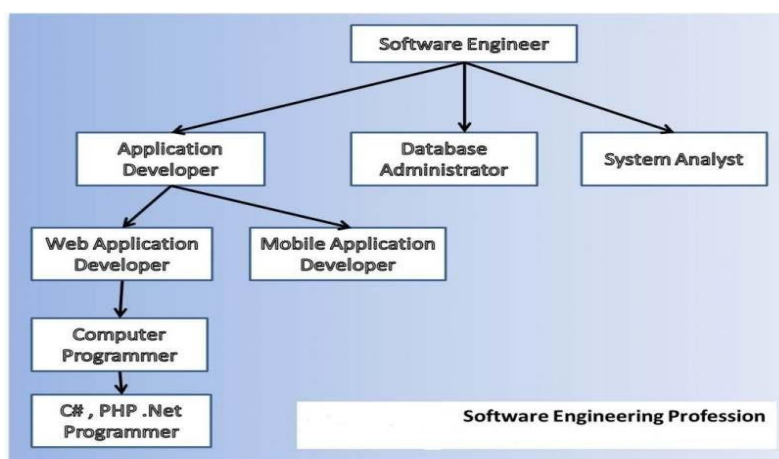
Figure 4 Software engineer application

2.8 Application in Communication Equipment

With the increasing living standards, mobile phones and other communication tools to become one of the essential necessities of life, the popularity of science and technology makes computer software technology into modern electronic products, such as WeChat, QQ, mobile phone APP popular, But also greatly facilitate and enrich the people's daily life, improve the communication efficiency, but also greatly facilitate the communication between people, become an indispensable part of life. In the rapid development of modern technology at the same time, a new era of communication tools are numerous, through the network information dissemination speed and scope of a significant increase in the modern marketing methods to quickly and quickly focus on information audiences, through the smart phone

APP application or tablet computer Communication tools can be fast communication and full communication, businesses can display multimedia products through multimedia such as video and video information. The use of a variety of information technology to show, such as the video let people feel, 3D technology people into the virtual world, human-computer interaction makes people feel a variety of comprehensive, smart phone scan two-dimensional code can quickly access a comprehensive variety of information, intelligent terminal To maintain further contact and understanding, to improve the probability of completion of the transaction, payment methods diversified and easy to operate, to rely on mobile Internet technology to establish online exchange trading platform. , Daily life. With the extensive application of computer software, people's daily life is almost inseparable from the computer technology. For example, e-mail to send e-mail, office software, human interaction and game development are inseparable from the computer software engineering [9]. The extensive use of software engineering, not only to improve people's work efficiency for people's daily life to provide convenience.

2.9 The Application of Education

School teaching is also inseparable from the application of computer software engineering. In modern teaching activities, teachers usually teach with modern information technology. PPT class, slides, projectors, high-definition television and micro-class and other new teaching tools appear in the classroom, the new teaching methods greatly improve the students interested in learning, is helpful for working on the nature of study hall instructing. School students in the collection of student information, but also usually with the computer software engineering registration, a comprehensive grasp of the students of the information, campus construction is a very important issue for the state and society [10]. Computer software engineering plays an important role in the operation of the school network. Students can get through the computer network and learning related resources, parents can also be through the campus network to keep abreast of children's learning and security campus network construction greatly narrowed the relationship between the students, creating a good campus atmosphere, to facilitate the school to manage [10-11].

2.10 Definition of Data Collection

Data acquisition, also known as data acquisition, is to collect data from the system outside the system, and to transfer to the internal interface of the system. Data acquisition technology is widely used in various fields. For example, the camera and the microphone are data acquisition tools. For a variety of physical quantities, as the collected data, they have been transformed into a variety of electrical signals, and they including temperature, water level, and wind speed will be converted into analog or digital. Sampling is used to collect the data, each over a period of time on the same part of the data collection. In the collected data, most are the instantaneous values, and there may be the characteristic values during a period of time. The basis of the collection is the accuracy of the data. The way of data measurement is generally divided into two types, namely, contact type and non-contact type. The detection components are divided into many types. Regardless of the measurement methods and components, the most important is not to affect the status of the measurement object, and

does not interfere with the measurement environment. Only in this way can we ensure that the data can be accurate and true, and the data collection has a wide range of meanings.

III Methodology

At present, with the rapid development of the Internet industry, data collection has been fully applied in all walks of life, and the field has changed a lot. On the one hand, for distributed control, its application has been more mature, especially in foreign countries, and its intelligent data acquisition system has achieved good development. On the other hand, bus compatible data acquisition card is also increasing. At present, many kinds of data acquisition devices have been developed in many places, which has promoted the further development of data collection. In the application, its application scope is also more and more broad, and the function is also more and more important, and it has the quite mature application in the laboratory, the logistics supply chain, the marine survey and so on.

### 3.1 Development and Application of Electronic Communication Interface

The data transmission between computers, or the computer and the terminal can be realized through two ways, namely, serial communication and parallel communication. The serial communication is widely used at present. Serial communication using fewer lines, the cost is relatively low. In the process of remote transmission, the characteristics of the multi-line is not consistent, which is easy to identify and can bring great convenience to the design of the system. The accounting subsystem is the core of the enterprise financial software system, and the accounting subsystem is also called the accounting processing subsystem, which is an important component of the enterprise financial software. Accounting is based on the original certificate of accounting personnel in the record business registration, accounting basic information to accounting voucher system according to the above, accounting vouchers, general ledger and subsidiary ledger automatically, and generate daybook. It reflects from obtaining and vouchers, the whole process of books and generate. The accounting subsystem function reflects the accounting work of the work is to include nuclear Ton, supply process, production process, sales process, W and inventory management and payroll process, various services can W system and the accounting processing in accounting system. Of course, if enterprises want to give full play to the management function of computer software, they can use other subsystems to do the corresponding business accounting, such as using the sales management subsystem calculates the sales business and uses the salary subsystem to calculate the wages and services, etc. at this point, the function of the accounting system is only realized as the examination and bookkeeping of the vouchers [11].

3.2 Business Analysis

In the process of manual accounting, accounting of registration and modify business vouchers, fill in the business course summary table and prepare financial statements and other business, the enterprise can be W depending on their size and the amount of business to choose appropriate accounting procedures to carry out the accounting work, it's obvious characteristic is: the scale of the enterprise more and more business volume, accounting process is more complex. But in computer accounting, with the support of the powerful

computing function of the computer, the accounting effect the accuracy of the calculation results is greatly improved, so that the accounting process is no longer limited by the size of enterprises. According to the management needs of production operators, the system can provide query vouchers, records and query summary tables and statements, data and other functions, so as to facilitate the development of accounting work as shown in figure 5.
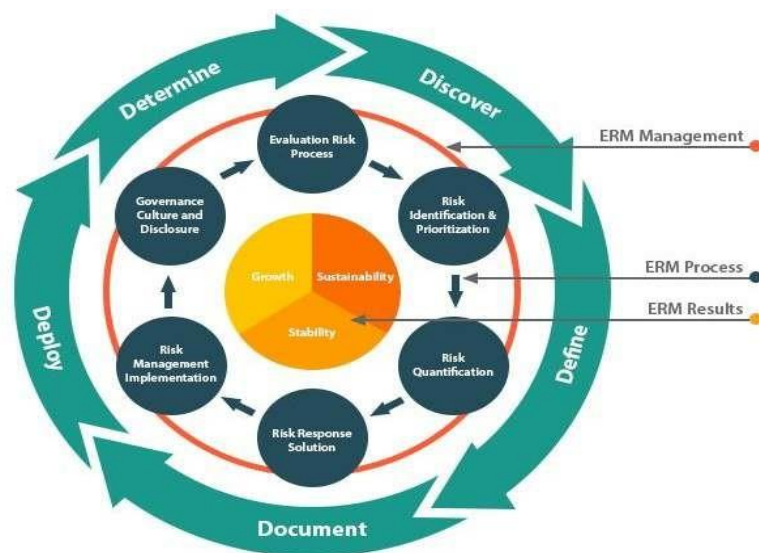
Figure 5 ERM management

As a financial software business, the core also functions; accounting subsystem reflects the enterprise supply and marketing, and other comprehensive information on all economic transactions. It is in the central position of the entire accounting information system, and the data of other subsystems must be transmitted to the accounting system. At the same time, the accounting system should transfer data to other subsystems for their use. The basic data source of accounting subsystem in wages in the subsystem of salary vouchers, fixed assets in the subsystem of fixed assets accounting vouchers, accounts receivable in the subsystem of receivables accounting vouchers, payable in money payable vouchers, inventory subsystem in the inventory accounting vouchers, cost management system the cost management of accounting documents, the audit and accounting treatment, at the same time, but also to the financial analysis system, UFO report system, decision support system to provide financial data to generate accounting statements and other financial analysis; financial analysis system [12].

The difference between the different organizational processes is that there is a difference between the ledger records. In the various organizational processes, the subject summary table is the most applicable and suitable for different forms of business accounting. Because the accounting information system today is composed of many subsystems together, in order to ensure the consistency of data between the various subsystems and realize data sharing between systems, and a variety of public information (subject, Department of export, customers and individuals) is defined and arranged in a special port system, i.e. the initial

setup subsystem. Before all subsystems are used, information system is completely and comprehensively defined and set up so that the initialization content can be reduced when the subsystems are used [13].

Accounting subsystem is a very versatile system; we can meet the application needs of all walks of life. However, the higher the degree of generalization of software, the greater the initial work. Therefore, before the accounting subsystem is officially started, the initialization of the accounting system should be carried out according to the business attributes of the unit [14-16]. Initialization setting is the basis for accounting system usage. Therefore, in the accounting subsystem, an initial setting module should be specially provided to facilitate the accounting people through the module for the operation of the accounting subsystem, the necessary environment.

Initial setting of enterprise account set. A complete book system is established in a computer
Figure 6 PDS management

application system. Account set. In the financial software system, W for a number of enterprises (or internal multiple independent accounting department of export) respectively account, and each account set of data independent of each other, mutual influence, to maximize the use of resources. Each independent accounting enterprise has a complete

accounting system, and the accounting set is a data file which forms the interrelated data between the accounting data [17]. Every accounting unit with independent accounting function (whether it is a legal person) needs to set up a set of accounts.

This module is the accounting voucher registration and audit process daily accounting items, accounting work to realize the computerization, the real work is mainly manual work

certificate, is the enterprise business of making accounting vouchers, vouchers and accurate input to the computer. Financial workers can enter the content of documents according to the occurrence of business [18]. They can also query and print vouchers according to the management requirements, and the contents of the vouchers entered by W can automatically generate transfer vouchers according to the instructions. Financial workers will be happened in the economic business amount; accounting related to the occurrence date, document number and other information input to the system, the operation by way of man-machine conversation, operation can check the information from the computer screen is accurate enough, after check, saved to the document database, or to modify the certificate information. The accuracy of entry, determines the accuracy of accounting work, and certificate records business must comply with the regulations will juice, preparation of audit certificate and certificate must be completed by different people, the objective for the audit evidence, audit certificate cannot be modified, also cannot be deleted, only to cancel the original approval the audit was able to modify or delete documents [19].

3.3 System Detail Design

Eight function modules it this accounting subsystem in between, can maintain their independence function, each module between a combination of japan. This part discusses several main function modules, including initial setting, cashier management, document processing and account management. At the same time, database design is discussed.

3.4 Initial Setup Module Detail Design

The accounting subsystem provides the initial setting module for the secondary school, and the accounting personnel can prepare the necessary environment for the operation of the accounting subsystem through these modules [20]. Before the accounting subsystem is officially started, the initialization of the accounting system should be carried out according to the business attributes of the unit. Initialization setting is the basis for accounting system usage. The class diagram realizes the function of its module through the function module, the composition of each module class, the connection relation of each sub module, the interface command, the calling relation, etc., is the static constitution description diagram of the system.

Among them, the establishment of a complete set of accounts for the amendment of the books system for enterprise computer system and new; a set of basic information encoding scheme used for setting, customer classification and customer profile setting, Department of export files and personnel files, supplier classification and supplier file set in various way increase, modify, delete, add, print settings, preview, output and other operations; accounting settings to add, insert, modify, delete, query, print and other accounting subjects. The system administrator login system first initial settings page, open the establishment of account function module, input increase accounts, modify and delete the account order, establish account control after receiving the instruction, invoke business logic in the class increase, modify command, through the establishment of account entity class save operation results. At the same time to establish account operation result feedback.

The function of the exchange rate management module is to assist the foreign currency accounting service [21]. With this function, the user can increase, modify or delete the foreign currencies at any time. Especially the use of the user account exchange rate at the beginning of the month, every month at the beginning of the input this month using the accounting rate, at the end of each month and then enter the exchange rate at the end of the function, to provide the necessary information for automatic treatment of exchange gains and losses. The output of cash and bank deposit account R for the output of cash and bank deposit yen accounting module is the cashier input cash or bank deposit accounts and date, the computer according to the given subject and the yen will be cash or bank deposit account is displayed on the screen or from the printer output. The output of funds for output funds reported yen module is the amount and balance of cash or bank deposit accounts of an output R. The development of computer has brought the development of the computer era enterprise application, and corporate finance in business decision making is not only a reference tool, and has gradually become an important tool for the decision of enterprise management, is a necessary part of enterprise management, especially large enterprise groups, to solve the group enterprise management plan and data analysis and decision making, financial management more and more on information technology, the application of financial software, or even directly related to the effectiveness of the quality management of enterprise group. Enterprise financial management software, computer software by combining the fast data processing function and financial function of data management, realize financial management procedures, fast and efficient, and can greatly reduce the errors in data statistics. In modern enterprise management, how can optimize the financial management flow, optimize the financial management method, realize the ultimate goal of financial management, and finally realize the improvement of enterprise benefit.

3.5 Document Processing Module Detail Design

The certificate processing module is mainly used to complete the daily processing work of the voucher, make the enterprise's business into the accounting voucher, and input the voucher accurately to the computer [22]. The vouchers for the input and check the accounting voucher information; voucher modification is used to modify the accounting voucher for information; validity, legality and validity of accounting voucher audit entry; the journal and financial statements for the query, and print journals and financial statements; check management for registration check receive; bank reconciliation for entry and modification of bank deposit account information; prepare balance sheet preparation, query and print bank balance sheet adjustment, check whether the correct W reconciliation.

The cashier login system, open the cashier management function module, in the preparation of the balance sheet adjustment module, the system sends to the preparation of the balance sheet adjustment instruction, system balance sheet adjustment control, call the preparation of the balance sheet adjustment compilation method of business logic in the class of 0, the preparation of the balance adjustment table, and through making reconciliation entity class in the database, while compiling feedback results. This system involves entities including user

entity, entity, entity institutions business personnel and accounting personnel, such personnel entity, personnel review entity, general ledger accounting entity, system administrator entity, master table entity, daily cash report entity, by detailed list of entities, initial set of entities and entities such as verification of balance sheet as shown in figure 7.
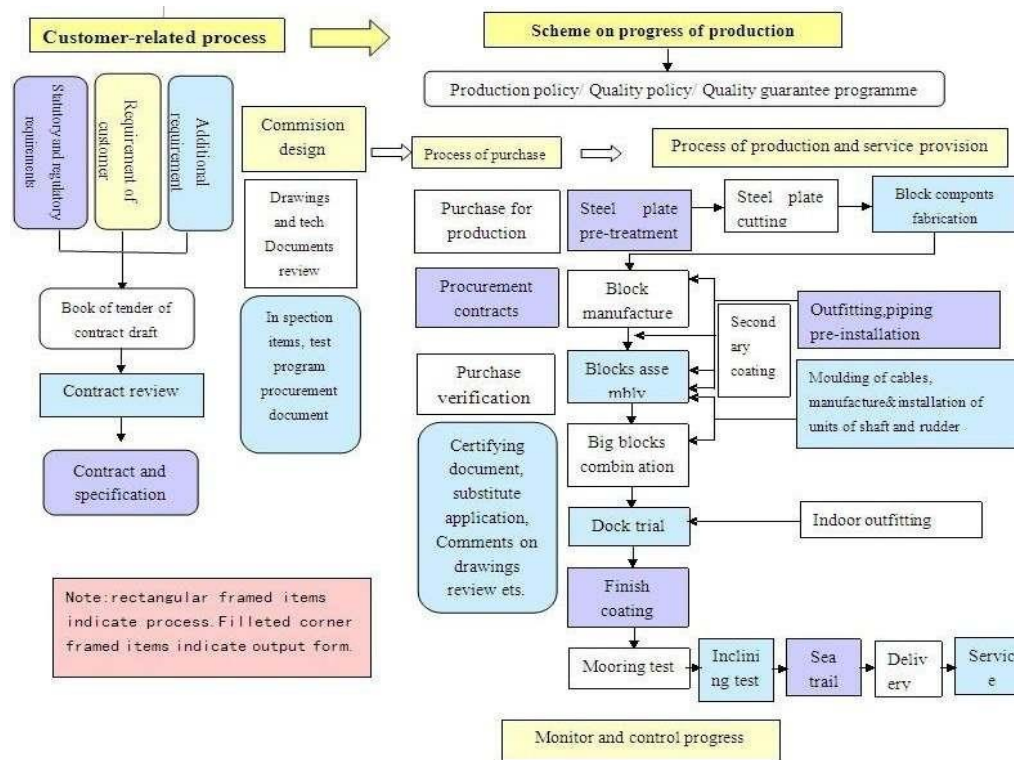

Figure 7 Flow chart of enterprise financial management system

After the system E - R diagram is completed, the E - R model is needed to change to the relational model, that is, in the need to form a database design. Here, the relational database is chosen. Because of the two-dimensional table in a relational database, we can clearly describe the relationships between data. The definition in the system table is strictly consistent with the requirements of the paradigm, and all tables in the database meet the requirements of the paradigm [23]. According to the system E-R chart according to the characteristics of the system, the data collected for pressure after standardization, the system database is designed to store all kinds of information and data forms.

IV Result Analysis and Discussion

In the last chapter, the application of data acquisition and electronic communication interface is analyzed. This chapter takes the greenhouse data acquisition system as an example, and explains the design of the organization electronic correspondence interface of the natural information assortment stage. First of all, the overall design framework of the system is summarized, and then the key technology-chip selection, hardware circuit software design are analyzed, finally it summarizes the existing problems and puts forward the further improvement measures.
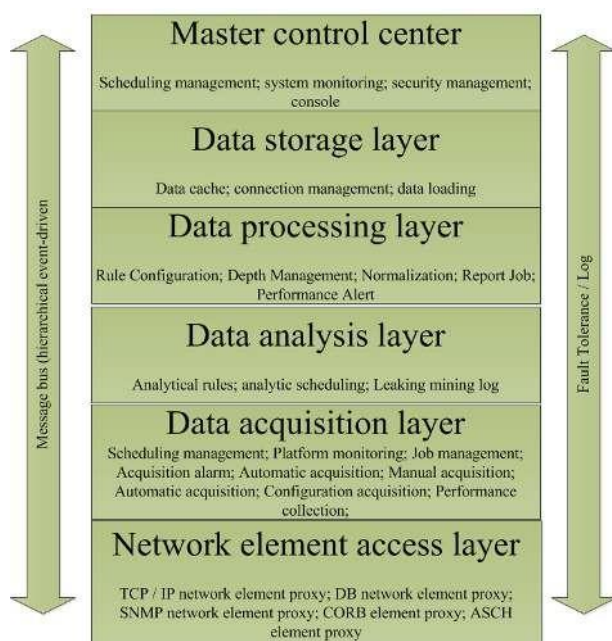
Figure 8 Data acquisition and processing platform

4.1 System Overall Design Framework

The overall framework of the data acquisition system is composed of control center, data storage layer, data processing layer, data acquisition layer, and network access layer. In the aspect of system design, the whole system design uses AT89C52 as the main processing chip and combines it with REALTEK company's 10M Ethernet control chip RTLSO19AS, to make AT89C52 drive RTL8019AS work, and achieve the purpose of the interconnection of greenhouse data mining system and external network. RTLSO19AS is the Ethernet chip of ISA (Industry Standard Architecture) bus interface, compatible with NEZO00, and the software has good portability. In addition, the system also extends a block of 32K bytes of RAM76C256 and ZK (256 bytes) of EZPROM lights 24eo2. Eight T24eoZ and sges Z make data transmission according to IZ e bus protocol for, only taking two signal lines, which is mainly used to store IP address, gateway address and other configuration information; Expansion of large capacity RAM is because Ethernet data packet transceiver and serial communication data need to receive sufficient buffer, while the complex TCP River P processing also needs to take up a lot of memory space.

4.2 Software design of serial communication module

Serial programming is mainly to set up two buffers: accept buffer and send buffer. The essence of buffer operation process is the all data access process, and according to the need the size of the buffer can be adjusted. The following describes the format of the data frame: The first is the starting position, followed by eight bits of data, and the ninth bit can be programmed. At the same time, the ninth is also a data flag bit, which is able to send and receive address. Then the last is a stop bit, no parity, baud rate serial communication can make its own debugging according to the needs. The following table describes the serial

communication function prototype and its use function, and the design of this paper will call functions in the table.

Table 1 function prototype and function description

Function prototype	Function description
Chargehtyte (void)	Take a byte from the receive buffer, if you don't want to wait, before the call to check whether the inbufsign is 1
Getline (charidata*line, unsignedcharn)	To get a row of data to enter the end, you must define the maximum Number of input characters
Pubtyte (hcarc)	Put in a byte to the send buffer
Pubtytes (unsignedehar*outPlace, unsignedeharj)	Put a string of data to send buffer, custom length
Putsitrgn (unisgnedhcarcode*puts)	Send a string that is defined in the program storage area to the serial port
Putchar (unisgnedhcarc, unisg nedhcarj)	The decimal representation of a number of unsigned characters must be marked to indicate the location of the decimal point.
putiin(unisgndeinlt, unisgndehcar)	The output of an unsigned integer number of decimal representation, must be marked with the decimal point position, automatically remove the front useless zero
delay(unsignedeharn)	Delay function
Piutnbuf (unisgndehcarc)	Manually enter a character into the input buffer

4.3 Further Improvement Measures of the System

In the system designed in this paper, the single-chip system is not to transmit large capacity data, and the system can only be used to control the single chip in the use of the process. This reduces the resource consumption of the single chip microcomputer system [24]. From the header of IP protocol, the IP segment can be avoided in the transmission as long as the control in the length of 68 bytes of data. So there are 40 bytes of free to transfer control instructions, and this design is relatively simple, it is a more appropriate design method. But when the header of IP is expanded to 60 bytes (The selective fields are occupied), LP header 60 bytes plus UDP header 8 bytes, it has reached 68 bytes, in the premise of the non-packaged control command. If the length of the instruction data is controlled, it will be more than 68 bytes. Although this kind of packet is generally not more than MTU and lead to IP segmentation in the local area network operation, and it can be a good run, but when the LAN connected, this approach may fail.

In order to improve this system, the system can modify the UDP protocol in order to adapt to the application. Within the UDP header, there are two bit fields of 16, source port and destination port, which are generally used for multivariate data between destination and source applications. We assume that the destination port field contains the control command, so that when the write operation is performed, it is the target address of 1A 2-A. The source port is used to save the control command value D15-D. (optional).

And, in order to ensure that ensure that a reserved port is not used, the most important bits (most significant bit, Ms B) of the source port and the fifteenth bit of the destination port must be set to 1. The lowest part of the destination contains the address bits (called A, 2, A). F is the distinction between read and write operations, and MSB specifies the most important data bits (D15). Source port contains the remaining data bits (D14- D0). This leads to a very simple and effective, with 8192 word address space of 16 bit read and write protocol. Exchanging the purpose and source port by coding information can provide more effective function.

V. Conclusion

This paper mainly introduces the definition of acquisition platform and communication interface. Combining with the scholars in different fields of environmental data collecting platform of electronic communication interface point of view, this paper analyzes the overall framework of the system structure and the main chip selected in the system. The software of hardware circuit is designed, and the problems in the system are found. Finally, the solution is pointed out. If this design is applied to further research, the embedded system can be used to extend the TCP/IP protocol set to the maximum extent, and it can give full play to the functions of the network. In short, at the present stage of computer network synthesis problem analysis process, because of its relatively wide range of design, hence, to optimize the system structure in the process of achieving reasonable protection of computer users, you need to work through computer security Design, computer encryption technology to build, to enhance people's important understanding of the safe operation of computer systems for the operation of the network environment to create a good condition. Computer software engineering research and development and construction has gone through a long course of development, but to be as mature as other engineering disciplines, there is still a long way to go. In the development of computer software, we must study similar to other engineering disciplines project development, learn from its advanced project management experience, software development projects for the unique problems encountered in the development strategy, the use of technology and development tools.

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