Computer Technology in the Application and Research of Office Automation

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Abstract—The comprehensive application of computer technology establish man-machine interactive contact through the computer network system, computer and the computer, realizing office's automation management, improving the office's efficiency effectively, and bringing information communication revolution. Office automation is developing in the direction of the better educated, network, intelligence. Computer technology as the center of the system is developing on the way of graphic processing, intelligent direction. Office activities for the application of computer technology is the most extensive, and the most obvious is in the form of office automation. In this paper, from the perspective that computer technology is office automation supporting technology, computer technology go through every link of office automation and elements as well as the significance of the application of computer technology in office automation. Analyze the application of computer technology in office automation from these three aspects.

Keywords—Computer technology; Office automation; Computer science and technology; The full text retrieval

I. INTRODUCTION

Computer technology develop gradually from the traditional technology to intelligent and high speed, the overall lighter weight, at the same time, the computer also smaller now so regulations for computer software have to be more detailed and accurate,In the future, we will also make further progress on computer intelligence and humanize. Computer technology except for using the keyboard and the handwriting input, With the progress of the important skills, we have this feeling that we are born in the network world. Computer virtual reality skill is the best performance, with computer skills progress, a lot of latest computer system come out, international computer skills research scholars of every country provide all aspects of support, it will also provide the vigorous development of the computer in the future. at present our country is further studied those creatures which make a certain achievements. Nano computers are the latest science and technology derivatives. Along with the continuous development of scientific, these computers will appear in our daily life and bring more convenient to our life, industrial production, economic progress.

With the popularization and application of science and technology revolution, the computer technology also play an important role in many fields and also merge with other technologies gradually. Office activities in the application of computer technology is more extensive, and the most obvious is in the form of office automation. In this paper, I writing it from the following three aspects: computer technology is the supporting office automation technology, computer technology go through every link of office automation and elements, as well as the significance of the application of computer technology in office automation of the three aspects to analyze the application of computer technology in office automation.

II. THE CHARACTERISTICS OF THE DEVELOPMENT OF COMPUTER TECHNOLOGY

1. The multipolar. At present, common personal computer has a very wide range, but the industry requirements for computer just on small personal computer, a lot of large and giant computer also has a pivotal role. Now, therefore, many giant, large, small and micro ones have their own field situation, also is the situation of the multipolar "as in the field of cutting-edge science and technology and national defense, the necessity of the existence of the giant computer is very big, in these fields, the maturity degree of using these giant computer technology marks the degree of the application of computer technology in the overall country.

2. Intelligent. Computer intelligent means let computers by simulating human feeling and thinking process, enables the computer to process information more accurately and rapidly. This is the goal of the fifth
generation computer strive to achieve. Computer intelligent research field is very wide, one of the most representative is computer robotics. On computer robot technology and one of the most famous example is: In 1997, deep blue computer which speed is about one billion times per second beat the world chess champion Garry Kasparov.

3. Network. Network is another important trend in the process of computer development. Computer network refers to the use of modern communication technology and computer technology to connect the different parts of the computer, build a large scale, many function and can pass information’s network together. The realization of the computer network, making sharing network resources true. It can improve the integration of information resources greatly, it also made positive contribution for the realization of the globalization, at present, the network has spread rapidly in the global scope, almost all of the family or in the office is equipped with computer to connect to the Internet.

Computer technology is used in the field of computer equipment, technical methods and technical means, it has the obvious comprehensive properties, it links with electronic engineering, applied physics, mechanical engineering, mathematics and modern communication technology closely, it is developing rapidly. Computer technology as the core of the information management, data processing system has gradually become the most important means of various kinds of modern management.

The application of computer technology in office automation, embodied in the following aspects:

1. Computer technology provides the necessary office automation hardware and software resources, the main business of modern office, such as text editing, information processing, information transmission, information retrieval and so on is inseparable from the computer, the computer is essential to the core of the office automation equipment. Office automation hardware refers to the plant and office automation system in the actual equipment, software means the computer program that use for running, management, maintenance and application of computer editing.

2. The automated computer technology achieve the document management

To send and receive file management: to read and reply fully completed on the computer network, all of the workflow can be defined by the user, all traces to reviews, corrections, operation time, operation were retained in detail. When receive a copy of the document, register first, then sent to document agent, after told the approval person and promoter, specified in the proposed one official document will be automatically sent to the approval and the promoter, finally someone will let document archive.

3. Computer technology can make workflow automation, network, intelligence, popular, humanize and functions integration, this is the trend of the development of computer technology, a new type of superconducting computers, nano computer, light, DNA and quantum computers will appear in the near future, across all the fields. Computer network will also present a fully connected, open, the characteristics of multimedia transmission.

SQL Server full text retrieval process

SQL Server 2000 provides an enhanced full-text retrieval service, it is to build a full-text index full-text retrieval. SQL Server allows update the index, in the background can be used in the background a full-text index wizard, SQL Server agent job scheduler to scheduling a full-text index update. According to the data and resources, in complete reconstruction, incremental reconstruction based on timestamp and change tracking these three methods in choosing a method to maintain the full-text index. Using full text retrieval, Image can be stored in a column certain types of data indexing and query. Full text search using one of several support screening to explain these data and extract the text data, for indexing and searching.

SQL Server2000 full-text retrieval process is shown in figure 1. Application to the SQL Server sends the full text retrieval statements; When receiving full text search statement, using the full provider by Microsoft search service module search engine to retrieve the required information; Query support components use search engine components from full text search to extract the requested data, in the form of a row set passed back to the provider in full; Full set back to the relationship between engine provider will visit, relationship between engine and full-text provider received a set of all the lines are
combined, to generate the sent back to the client the final result.

![Diagram of full text retrieval process]

**III. CONCLUSION**

Network technology has become the core of the computer technology in the 21st century, the computer technology form the modern office way that every country can use it as an important task of the future social development. Office knowledgeablization and intelligent is the direction for the future of the world. Full-text retrieval technology is one of the key technologies in development of full-text database, abstract database, search engine and office automation system. This paper introduces how to use SQL Server2000 for full-text search implementation of office automation system and official document full-text search, provides Web based user interface, achieving various types of document full-text retrieval functions quickly and efficiently. Further problem is how to design good full-text index update scheme and how to do the full-text index for multimedia information retrieval.

**REFERENCES**


