Research on Computer Automatic Control Platform Based on Data Mining Technology

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Abstract. With the popularity of the Internet, a large number of data and information are generated every day in the society, which makes it difficult for us to directly screen out useful data and information. Therefore, we must apply Data Mining Technology (hereinafter referred to as DMT), which is a combination of artificial intelligence and database technology. Through DMT, we can better combine with automatic control platform (hereinafter referred to as ACP), which will be used to realize automatic identification, control and management of various industries. Through DMT, we can process a large number of data information, which can meet people's demand for knowledge. At the same time, through DMT, we can realize the accurate collection and collation of the data of ACP, which will form a broad application space and practical significance. Firstly, this paper analyzes the DMT and classification. Then, this paper analyzes the application of DMT in ACP. Finally, some suggestions are put forward.

Keywords: Data Mining Technology, Computer, Automatic Control Platform

1. Introduction

In the Internet age, many aspects of our country have been integrated with the computer, such as digital technology, network technology, computer technology, which can effectively improve people's work efficiency [1]. At the same time, the ACP is generating a lot of data every day, which requires us to constantly mine data information. Through DMT, we can realize the recognition, judgment and decision of data information [2]. Therefore, DMT has become the most basic tool, which will improve the productivity of the platform. Through the establishment of intelligent and automatic control system, we can improve the quality of goods management. Under the background of big data, we must increase the DMT ability of modern automatic control management system, which will complete the design of automatic control management system [3-6]. Therefore, DMT has become an essential technology, which will improve the effect of automatic control management.

2. Related concepts of DMT

2.1. Overview of DMT
With the continuous development of the scientific level, the capacity of the database has reached an unimaginable level, which requires us to find accurate information in the huge amount of data information [7]. Through DMT, we can get the relationship between data and model in the massive database, which will provide a better basis for enterprise decision-making. At present, DMT directly leads to the formation of many classifications of information mining technology, such as discovery driven and verification driven [8].

2.2. Principles of data mining process
Data mining is knowledge discovery in database, which is a process of extracting some useful information from database or data warehouse. Data mining can extract hidden unknown information and useful potential information and knowledge from a large number of complex and fuzzy data [9]. Data mining is the product of the combination of database and artificial intelligence technology, which can achieve data extraction, transformation and so on. The process of data mining is shown in Figure 1.

2.3. Classification of DMT
With the development of information mining technology, different types of DMT will be produced one after another, which will cause a wide range of types. Therefore, the classification of DMT leads to the confusion of information mining, which requires us to mine data information [10]. This paper classifies DMT, as shown in Figure 2.
3. Application of DMT in ACP

3.1. Wide application of industrial mechanization
Industrial mechanization is the introduction of ACP in the main function of the mechanism, which can combine the mechanical device with the ACP of electronic design. Through DMT, we can apply mechanical technology, automation technology in the operation process, which can better supervise and practice. Through the corresponding ACP, the accuracy can be improved in the actual operation process of industry. Through DMT, we can improve the ability of numerical control, which can also improve the efficiency of production. Flexible manufacturing system is the most important application of ACP in mechanical control, which is an automatic manufacturing system [11]. In industry, flexible manufacturing system can improve its own production capacity, which can make parts more mass production. Industrial mechanization can be applied to many production scales. It is a process of mutual operation. With the development of automation and control platform mechanization, the cross flow technology will make the difficult technology can be produced safely. With the continuous development of programmable control technology, we can collect different data, which will compile different algorithms. By collecting different data stored, we can also monitor our own software. By programming a variety of algorithms, we can complete our own control system, which is widely used in various industries such as metallurgy.

3.2. Demand of DMT for power dispatching automation
At present, China's DMT is developing rapidly, which can process, summarize and organize the data. Through big DMT, we can provide users or enterprises with complete and accurate information, which will effectively help the control management and decision support of enterprises. Power dispatching automation system collects a large number of power grid information data. However, due to too much data and inconsistent data, it will make data difficult to manage and apply. With the continuous expansion of the scale of China's power grid, the amount of data collection will increase accordingly. Whether it is the production operation or management of enterprises, we need to transform a large number of historical data into effective information and knowledge, which is conducive to the decision support of enterprises. In the power grid dispatching automation system, the functional requirements of DMT are reflected in the following aspects. First, DMT can reduce the time of manual operation, which will automatically extract useful data information from the decentralized sub scheduling
automation system. Second, data mining can ensure the management to grasp real-time information, which will avoid the interference of middleman to data. Third, the platform can grasp data information qualitatively and quantitatively from different aspects, which will help forecast and management. Fourth, we can assist in the analysis and formulation of power grid reports, which will assist the operation of different posts. Fifthly, we can query the data in real time, which will help the work go smoothly. In decision-making issues, power dispatching automation system can help management information communication, which will achieve reasonable allocation and effective use of various resources. The decision-making activities of enterprises for power grid planning mainly focus on the change of power load, which requires the management to grasp the first time data information at any time. Based on the change of electric load, we need to collect new technology and information of electric power, which will determine the planning decision. The decision-making process of power dispatching automation fully embodies the importance of data information mining. Through planning, organization and data analysis, enterprise managers can achieve the purpose of decision-making [12].

4. Measures for the development of computer ACP

4.1. Strengthen the research of data bus
The ACP needs to adjust the instruments, transmitters, communication networks, etc., which can adjust the use of field equipment. Therefore, we must strengthen the research of data bus, which needs effective bus control adjustment. By expanding the distributed test mode, we can improve the development of automation control construction, which will enhance the construction of centralized test system. In the development process of modern module, we need to use effective equipment to cooperate with the construction, which will improve the management of network control platform. Fieldbus technology needs intelligent instruments. Link control center of central control system platform. By adopting all-round digital, two-way transmission and open construction standards, we can improve the multi station data information transmission control platform. In the process of automation system control construction, we can strengthen the application of various technologies in the system construction, which will improve the energy consumption standard of the rapid development of the system. Therefore, we can improve the adaptability of the bus, which will improve the accuracy. Through the rapid production analysis of bus control system, we can realize the accurate expansion and adjustment of measuring instruments, which will ensure the effectiveness of market share.

4.2. Strengthen the construction of network information control platform
Network information control platform is the embedded operation and management of the core software data of the system, which can control the core software and hardware of the operation instrument. Through DMT, we can improve the management level of transmission control between computer network information system and instruments, which can establish a reasonable instrument LAN interface,. Through the use interface and printer interface, we can realize the general control of test instruments. This can be clearly related to the actual operation of the computer. Through the ACP, we can improve the control and regulation process of intelligent equipment, which will clarify the construction of practical openness and effectiveness.

4.3. Strengthen the research of distributed regulation and control system
Distributed regulation and control system is based on intelligent equipment monitoring and control standards. Through the centralized actual control system, we can establish a reasonable modern graphic technology testing standards, which will improve the effective application of modern control technology. By strengthening the distributed regulation and control system, we can improve the rapid development level of communication technology, which will build a complete system of technical display control standards. By relying on the parameters of computer, communication and equipment, we can continuously improve the flexible application and hierarchical management level of equipment
configuration, which will ensure the effective improvement of the superior level of computer distributed control system.

5. Conclusion
At present, automation technology has been widely used in various industries, which requires us to strengthen the combination of DMT and ACP. Through the automatic control management system of data mining, we can provide service guarantee for users, which will improve the management quality of ACP. Through the ACP, we can realize the automatic identification, control and management of various industries, which will better realize the information service.

Acknowledgments
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