Network Management of Food Additives Quality Analysis and Inspection

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Abstract: In this paper, on the basis of the implementation of the national chemical industry standard analytical test methods and analysis of test items, a food additive quality analysis and inspection of network management applications are developed using the development technology of Visual Basic language and computer system operating environment, to achieve a network management software for users on food additives of quality analytical testing. The software sets up an information sharing network platform for enterprise and quality management departments, which is a major innovation in the food additive quality analysis on test management methods and tools.

Key words: Food additives, quality analysis, Visual Basic language, network management, software development.

1. Significance of the Research

In today's social development, the computer has brought great convenience and efficiency to people's work and life. Information technology, network technology has become the important choice of cost savings, increase efficiency [1]. If traditional methods are used to complete analysis of current data processing and inspection reports analyzing in food additive quality inspection with inconvenience on experiment inspectors and managers, which not only result in data no registration and data loss, but also inefficient and careless management flaws. Therefore, in order to meet the chemical manufacturers of food additives quality analysis of network management needs tests, the development of food additive quality of the results of calculation test, data processing, product specifications automatic evaluation and preservation of computer print management software are significant [2].

2. Purpose of the Research

More and more attention has been paid to develop a

food additive quality analysis test network management software with development of the computer, to achieve the quality of analytical testing of food additives automatic data analysis, computing, processing, evaluation levels, auto-save quality analysis of inspection reports and automatically print books, network management [3]. The software includes rich research projects and capacity, including preservatives, antioxidants, acidity regulators, anti-caking agents, defoamers, bleaching agents, leavening agents, coloring agents, color agents, enzymes, flavor enhancers, nutritional supplements, sweeteners, thickeners, perfumes and so on. The ultimate aim is to strengthen the quality of analytical testing of food additives network management, to prevent loss and any modification of the data.

3. Research Object and Content

3.1 Research Object

The paper reveals the network management method of quality analysis testing of food additives, for chemical companies to perform the national standard analytical test methods and analysis of test items as the basis, food additives as the object, the contents of

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each analytical testing and analysis principles and methods depend on the People's Republic of Chinese national standards [4], with a capacity of analytical methods and instrumental analysis methods as the main line, using Visual Basic language of food additives quality analysis test project to program [5], to analyze test data processing automation and network. Achieving food additive quality management of intelligence, improving management, enhancing the transparency of product quality, improving the economic and social benefits, the software has the originality, practicality and advancement. The ultimate realization target of the software is to analyze and generate automatically test report books, access to basic information about the product online, including: product name, manufacturer name, production date, production batch, product specifications (or grade), analytical inspectors, the person in charge and so on. People can learn more about the desired product in order to decide whether to buy the product through a computer network platform. If you purchase a product, but the product has quality problems, it can directly negotiate through the network and production units processing or claims. It is not happening that production unit does not exist and users trek to find the case with the manufacturer's, the companies also sell their products to users through the network platform and information sharing, and achieve to ultimately the production units and users win-win. After analyzing the implementation of network test report books and intelligent management, companies can track not only the quality of products anytime, anywhere, and users, authorities and quality inspection departments can understand the product's quality and level of anytime, anywhere, to provide users with the choice of products. Networking platform. avoiding inconsistent quality inspection departments of product quality inspection findings and analysis of test results of enterprises and other sectors phenomenon. Eliminating the product quality falsifications. While avoiding inaccuracies

authenticity and calculation processing laboratory technician at the time of inspection reports data processing and analysis, eliminating the phenomenon of false analysis of test data, reducing the computational analysis laboratory technicians test data of the heavy work to improve the analysis of test objectivity and impartiality of the data. Software can also be in accordance with national standards, industry standards and corporate standards of grade range, and the products are divided into qualified and unqualified. The computer can automatically judge the product, automatically sign analytical testing date, as long as laboratory technicians and the person write analyzing the comments and endorsement signature on the inspection report.

3.2 Research Content

(1) Firstly, according to national standards testing the quality of the food additive, a mathematical model should be set up through the application of computer Visual Basic language programming mathematical model;

(2) Analysis of test data directly into the computer, writing good computer program automatically processing and analyzing test data, analyze test results to calculate the deviation, average deviation, relative to the average deviation and the confidence interval for the mean;

(3) According to the calculation results of the computer analysis of test data and other relevant physical properties, chemical properties and national standard control, computer products, such as auto-evaluation once or grade, and displayed in the analysis of inspection reports;

(4) Computer analysis and printing the inspection reports automatically;

(5) Computer analysis of the batch of product test results and analysis of inspection reports volumes automatically saved and uploaded to the network for users, enterprises and quality inspection department on the network at any time;

(6) Write a computer program to establish and a mathematical model for preservatives, antioxidants, acidity regulators, anti-caking agents, defoamers, bleaching agents, leavening agents, coloring agents, color agents, enzymes, flavor enhancers agents, nutritional supplements, sweeteners, thickeners, perfumes and the like were 15 categories;

(7) Content of analysis and inspection reports include: analysis of the national standard test of analytical testing methods, the instruments and chemical reagents, data processing results with the deviation, average deviation, relative to the average deviation, etc. Mean confidence interval, products times or grade, analytical testing personnel and the persons responsible;

(8) The computer analysis is also signed automatically inspection date.

3.3 Development Environment and Select of Technology

The key scientific problems are the normal operation of the software system classification of food additives and implementation, software source code written, software, networking platform to create, implement intelligent management.

3.3.1 Development Environment and Framework

In the development environment of choice, considering a stable, efficient, stand-alone operation and operating environment network operations mainly to the most widely used Windows system support platform, the system uses C/S (client/server, client/server) mode architecture, not only ensures the system's safety and reliability, but also takes into account the convenience and connection stand-alone operation and network operation fluency.

3.3.2 Development Language: Visual Basic Language

Visual Basic language was originally developed from Basic language, but from Basic to Visual Basic change is a qualitative leap. This change not only increases the language features greatly, but also

changes the program design, reform program interface type and the programming mechanism, as well as reform of the programming mechanism. The authors use Visual Basic 6.0 as a development tool.

3.3.3 Database: Access

Visual Basic 6.0 directly supports Access database. Microsoft Office Access is released by Microsoft database management system, which combines the Microsoft Jet Database Engine and two graphical user interface features, is one of the system components of Microsoft Office. Since the Access database system is mature, stable, reliable and simple, small development system preferred database system.

4. Conclusions

(1) The user can learn more about the desired product through a computer network platform, and chemical companies also sell through the network platform to the user's own product, and share information ultimately to the production units and users win-win.

(2) Through analysis of the implementation of network test reports, intelligent management, not only companies can keep track of product quality, but also users, authorities and quality inspection departments can keep abreast of product quality and grades, to provide users with the choice of products. Network of the information platform, avoids the inaccuracies laboratory technicians without authenticity and calculation results of data processing and analysis of inspection reports from time to time in the process, and eliminats the phenomenon of false analysis of test data.

(3) Food additive quality analysis test report volumes of network management is a major innovation in the intelligent network to provide scientific and effective management tool for the chemical industry, users, authorities and quality inspection departments. Enterprises can save a lot of production costs.

(4) To avoid the inaccuracies authenticity and calculation processing laboratory technician at the

time of inspection reports data processing and analysis, to eliminate the phenomenon of false analysis of test data, reducing the computational analysis laboratory technicians test experimental data arduous work to improve the objectivity and impartiality of the analysis of test data.

(5) The software for the computer analysis of the food additive quality inspection and management application opens up a new perspective, creating a modern, fast, convenient and accurate processing method, a computer made in the application of chemical products in terms of quality a major breakthrough. It has broad applicability in various types of chemical companies at all levels, not only produces objective economic benefits, but also produces significant social benefits, for which promotion prospects are very extensive.

References

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Food analysis is a very important branch of analytical chemistry, able to provide information about chemical composition, processing, quality control (QC) and contamination of foodstuffs, ensuring compliance with food and trade laws. From: TrAC Trends in Analytical Chemistry, 2013. Related terms The latest methodology for the analysis of food additives is reviewed. View chapter Purchase book. Read full chapter. Food additives can be derived from plants, animals, or minerals, or they can be synthetic. They are added intentionally to food to perform certain technological purposes which consumers often take for granted. There are several thousand food additives used, all of which are designed to do a specific job in making food safer or more appealing. WHO, together with FAO, groups food additives into 3 broad categories based on their function. Only food additives that have been evaluated and deemed safe by JECFA, on the basis of which maximum use levels have been established by the Codex Alimentarius Commission, can be used in foods that are traded internationally. What are food additives? In this paper, on the basis of the implementation of the national chemical industry standard analytical test methods and analysis of test items, a food additive quality analysis and inspection of network management applications are developed using the development technology of Visual Basic language and computer system operating environment, to achieve a network management software for users on food additives of quality analytical. testing. The software sets up an information sharing network platform for enterprise and quality management departments, which is a major innovation in the food addi...