

Statistical Information Management System on Web

Li Qing, Computer Center, National Bureau of Statistics, P.R. China
75, Yuetannanjie, Beijing, China
Email: liqing@stats.gov.cn

I. Background

According to national statistical information network construction plan, NBS will realize the goal that is construction of database and combination of network through different levels. To reach this goal, Computer Center of NBS and Hebei Kaihua Science and Technology co., Ltd have jointly developed the software package— “Webstat Statistical Information Management System”, to be used widely in statistical system through Intranet/Internet. As a Web-based software, it has changed the traditional ways for organization and implementation of statistics. Test report and experiments have proved that the software is efficient, accruable, realizable and economical.

II. System Structure

Two kinds of modes, the C/S mode and B/S mode, serve in the development of large-scale database at present. In C/S modes, all of the clients link with database server, and the client-side is responsible for mutual communication with customer, collecting user information, and sending the query to database server and sever process, and the results back to client to finish the task. In this structure, both running environment and managements of the client are complicated, so the system openness and systematic expansionability are limited. The advantage of C/S mode is the union and simplicity of client-side software, which is suitable for accessing sever online at any distant places, and the flexibility of the system has been improved as well. These are the reasons for the adoption of Webstat system.

III. System Functions

The system is made up of two major parts: Data processing and Information Publication. The first part has been used to data processing work, such as data collection, checking, calculation, query, making table, and print. etc.

The second part has been used for information publication on web after finishing data processing. This part will be finished automatically by system, so it is very convenient for user to get rid of heavy processing work.

1. Data Processing

Data processing includes following modules: system management, specialties management, data input and edit, data check, data total, data Inquire, data print, etc.

2. Information Publication

As the second part of the system, it aims to data publication after data processing. In China, some data are confidential. During secure period, the data administrator must protect the data securities, and the user who has been authorized in any way should see the confidential data. In this system, we resolved it in good ways.

This part has main functions as following:

- Definition making for the fields of the data publication, hiding the data that is not suitable to be put on public medias.
- Definitions making for all users have different authorities with different data fields to browse and query, because users are in different class, so they have different fields. This way can be satisfactory for different demand by users, and securities of data can be assumed.
- The data which needs to be put on website will use flexible types and form automatically that the system provides.
- Providing statistical charts functions, such as color Pie chart, X-Y chart, Column diagram chart ,

etc.

- Providing functions including single indicator query, basic information query, time series of information query, historical information query, data sort in index, calculate proportion and growth rate, etc.
- Providing the function that user can input historical data saved in other data types or other medium, such as paper, tape and disk, etc.

IV. System Features

- By adopting B/S mode in processing procedures, it can realize the purpose of “zero management of customers”. Because it is based on large-scale Oracle database, the data storage is much more safe and reliable than ways used in the past, meanwhile, it can satisfy the storage demands of huge quantities of the data.
- Having flexible secondary development function systematically, user defines and turns into his own process system according to his own request to satisfy the need for complicated change and development of the statistics business.
- Having stronger safe protection function, it manages users in authority classification. In this way, data securities are assumed and easy users to use.
- Having their own grammars and regulations for check, total, calculation formulas, all of them are suitable for the thinking of user and the formulas are easy to understand and descript. Practically, it will satisfy the need of huge quantities of the data, such as total, check, modification, query, etc, being efficient and reliable.
- Organizing the working task in specifies, it allows user calculate across tables, specifies and years. The scale of data use is enlarged, and it shares by much more users.

V. Conclusion

Webstats system, through the adaptation of advanced technologies, has set up an efficient workflow, resolved the problem of separated data processing, data analysis, data application and publication. This system relies on network environment and gives user the advantage of full resource-sharing, and makes statistical departments able to offer more accurate, prompt, safe, effective service for macro economics adjustments and controls, and micro economics decision making. It provides a package of reliable solutions for internal information management of enterprises and helps E-commerce construction and implementation by enterprises.