Universal Statistical Annual Report Process Software

Yu Xubao
No.75 Yuetannanjie Sanlihe Beijing,100826 P.R.C.
yuxubao@stats.gov.cn

SARP 2000 is a universal statistical annual report process software kit, which is mainly applied to the statistical report forms process made up of statistical indexes in the social and economic phenomena, adapting to all level statistical departments and departmental statistics. The users are persons undertaken computer and statistic al work in the statistical data process. SARP2000 is run in personal computer, and operating system is Windows.

The designing of software SARP2000 integrates statistical work' s flow with distinguishing quality of computer data process on the basic of the statistical system of China, and it aims to be universal and applicable. So it is simple, easy to study, convenient and functional. What' s more, it absorbs the idea of manual report forms process in the process of computer. Therefore, it is easy to understand and accept it for users. The paper is to introduce emphatically the characteristics of designing of system SARP2000.

SARP2000 is designed by Visual c++ 6.0, and it is efficient, powerful, structurally and easily to be expanded and transplanted. Some of the features of the software kit of designing and data processing are as followings:

1. SARP2000 manages reports by levels and disciplines. It is convenient for users to choose proper level according to their disciplines required. Especially it adapts to four levels statistical bureau of China, which are National Bureau of Statistics, province' s statistical bureau, prefecture' s statistical bureau and county' s statistical bureau. In the software kit these different levels and variant disciplines are marked by codes of statistical units. It' s well known that there are few computers in Chinese many counties' statistical bureau. To our comfort, more than one discipline' s statistical data processing can be carried out in one computer because the data of different discipline is stored in different directorie s. Therefore, it is very clear to organize different discipline' s data processing.
2. SARP2000 has it' s own format of data files. Most of them are binary. The basic information of every statistical unit is stored in a data file called unit dictionary sorted b y unit code. Based on this unit dictionary and original data many kinds of sum can be made.
3. SARP2000' s format of data file can be converted into text file. So the data and results can be used by other software.
4. In SARP2000 users can describe the decimal p oint on every unit, every column and every row. The system records the information and transfers it into required format before data processing and results output.
5. SARP2000 allows to deal with many tables simultaneously, which greatly supplies convenience to logical relational checking and integral grouped process among tables.
6. By SARP2000 users can mainly realize the data loading, data logical error checking, calculating, totaling, and tabulating etc. Correspondently, SARP2000 gives friendly interfaces by which users can simply give the description to meet their own need. From this point SARP2000 is both universal and flexible.
7. In SARP2000 data and indexes are separated in form. All indexes of a discipline are in a dictionary called index dictionary, but i ndexes of a table are brought up by index pointers to forge relation to data. It both saves space of computer and benefits users for it is adaptive to indexes' change

in the future.

8. SARP2000 applies a virtual table called memory table which all middle indexes are placed in. The middle indexes are generally from other existent indexes and data by some algorithm. For some total data these middle indexes are indispensable, but it is unnecessary to memory them in the computer after data processing. Therefore, virtual table is a good choice to place them.

Above, I introduced roughly the distinguishing qualities of designing of SARP2000. Now, I will introduce its functions and characteristics.

SARP2000 software is made up of seven components of process management, file management, data input, data processing, data output, dictionary management and additional functions. In each component, there are some choice functions. For instance of data processing, therearesixassistancechoicephasesofreportchecking,datacomputing,accumulativetotal,grouped total, checking, computing among disciplines. Report checking is an important way to control quality of data by checking the report data according to some peculiar balance relation. There are automatic or appointed c heck in table and among table. What' s more, system supplies three methods to deal with errors of checking which are random modification on the screen, printing the error lists and automatic mating.

In a word, SARP2000 has whole and convenient functions which makes it into possible that all the processing of statistics is realized in the computer, especially for all levels statistical department of China under different circumstance. From definition of table, description, data input, checking, computing, totaling, tabulating to formula editing, SARP2000 comes into being an integrated data process system.