This module briefly describes software available for quantitative analysis at the SAO. Of the software listed, Quattro Pro, Dbase IV, Access, and Quick Statistica are the ones most likely to be used by audit staff. SAS is frequently used by SAO programmers as a means of data retrieval. Return to Table of Contents

Your choice of program will depend on what it is you are trying to do. Typically, a spreadsheet program is best for aggregating and graphing data. However, if you need to manage large or multiple files having many records, or if you want to build queries according to specific criteria, you will probably want to use a database program. If you want to plot data, test hypotheses, and look for relationships among data elements, you should use a statistics/data analysis program.

# SPREADSHEET PROGRAMS

#### **Quattro Pro**

Quattro Pro for Windows is a full-featured spreadsheet program available to all staff. It has

- Extensive financial, data analysis, and graphing tools
- Data modeling
- Help and expert guidance

For statistical analysis and manipulation of large data files, Quattro has limitations inherent to spreadsheet programs. Some of its commands are not intuitive, and it does not permit easy visualization of statistical data.

# Other Spreadsheet Programs

Many SAO staff still have DOS versions of Lotus 1-2-3, and several copies of Excel are available for Windows or the Macintosh.

#### DATABASE PROGRAMS

MS-Access

Microsoft Access is an easy to use, Windows-based, fully functional relational database program. It can handle large files from multiple formats and has various "wizards" to guide you through the building of queries, input screens, and reports. The data from the SAO CAFE system (described in the Data Retrieval module) is stored in Access tables.

**Dbase IV** 

Dbase IV is a comprehensive DOS-based system for collecting, manipulating, and analyzing information. It is available from the SAO LAN, can be used through custom applications, menus, or via a dot prompt. Among database programs, Dbase excels with sorts and calculations.

Mapmaker

Mapmaker is a database, graphics, and analysis package programs that shows results by geographical location. It is relatively easy to use, allows you to create maps and graphs of your data, and contains 1990 census data for all 50 states.

# **STATISTICS**

# Quick Statistica/Statistica

Statistica is a complete statistical data analysis system that includes a wide array of descriptive and inferential statistics. It provides excellent graphing capabilities and good online help, including a "statistics advisor." One copy of the full-featured version will available for check-out. Quick Statistica is a subset of Statistica that offers basic statistics and graphing. Three copies of Quick Statistica will be available on the LAN.

# OTHER PROGRAMS SAS PC

SAS PC is a system for data analysis and report writing. It allows you to store, retrieve, modify data, and compute statistics. Add-on modules allow complex statistical and data base functions. It accommodates access and use of non-standard file structures. However, it requires specialized programming knowledge.

### **Easyflow**

Easyflow is a program for creating flowcharts, data flow diagrams, and organization charts. It has a library of symbols and allows you to create new symbols. However, the current licensed version is dated. The program is not easy to use, and laser printing is slow and cumbersome.

### The Survey

The Survey is software for tabulating survey results. It allows you to set up a survey template, perform data entry, and create reports. It produces an array of statistics, has help and tutorial functions, is menu-driven and fairly easy to learn.

#### **QA/DUS**

QA provides various statistical capabilities, including determination of sample size and random number generation. DUS is a dollar-unit sampling program. Both are DOS-based, easy to use, and portable. File length is limited to 240 characters, and output is limited to 80 characters per line. QA/DUS is available from the SAO LAN and on diskette.