



## Getting Started

The first step to successful use of the program is an understanding of basic hardware requirements, installation process and program structure. These topics and related issues are the basis of discussions in this section.

### Hardware

Hardware consists of a computer and printer only.

#### Computer

This is an IBM PC or clone that is 100% compatible and has the following configurations:

- Pentium -500 MHz or higher processor
- 64 megabyte - RAM memory
- MS-DOS® and AMI BIOS or compatible
- Windows™ 98/2000/XP or compatible
- SVGA colour graphics adapter and 17" monitor
- 1 internal hard disk with 10 gigabytes storage capacity
- 1 CD and floppy disk drive
- Parallel printer port
- Serial asynchronous communication port/USB port
- Microsoft® compatible mouse

The hard disk serves as location of survey data base and the above size would be adequate for basic needs. There should also be *regular* backups of the data base. This can be in two forms, involving either a specific job or the entire data base. On average, it is useful to backup current jobs after the session. In this regard, the use of floppy disks for such storage will be adequate.

The floppy drive also provides the means to transfer raw data file of digital observations to survey data base.

While the software would run in a range of hardware, a high processor such as Intel® Pentium operating at 500 MHz is preferable because of the advantage of speed and use of math-co processor.

The use of 17 inch colour VGA monitor and mouse allows greater convenience during operations and is recommended in any Windows™ environment. The video settings should be 16-bit or true colours and 1024x768 pixels in screen resolution.

## Printer

Printing is through Windows™ Print Manager and printer set-up is available from program menu, to allow selection of any one printer for output. If only one printer is available then set-up is not required. Note that page orientation is portrait and should not be altered. Output is based on A4 print size.

## Installation

The program is one executable file, SMS.EXE, supplied in two 3<sup>1/2</sup> inch floppy diskettes. To install, place program disk in drive A or B and run SetUp.Exe from Windows™ Program Manager/Start Menu. This process also extracts and installs supporting files such as BWCC.DLL and SMSHELP.HLP. Preferences such as Program Group and directory are provided during installation, fig 2.1. There should also be another directory to serve as survey data base.

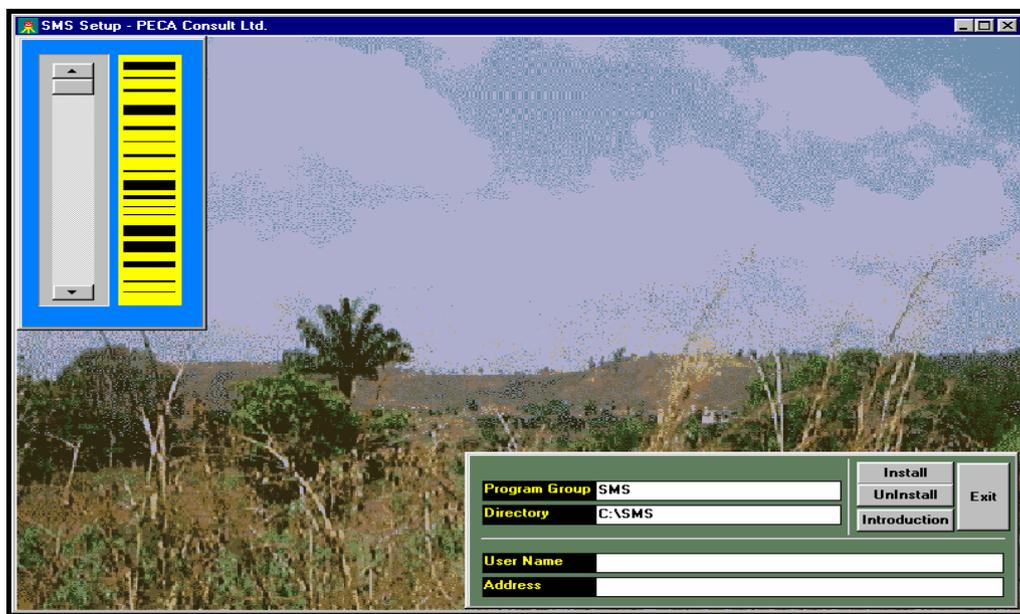


fig 2.1

To run the program click SMS icon, fig 2.2.

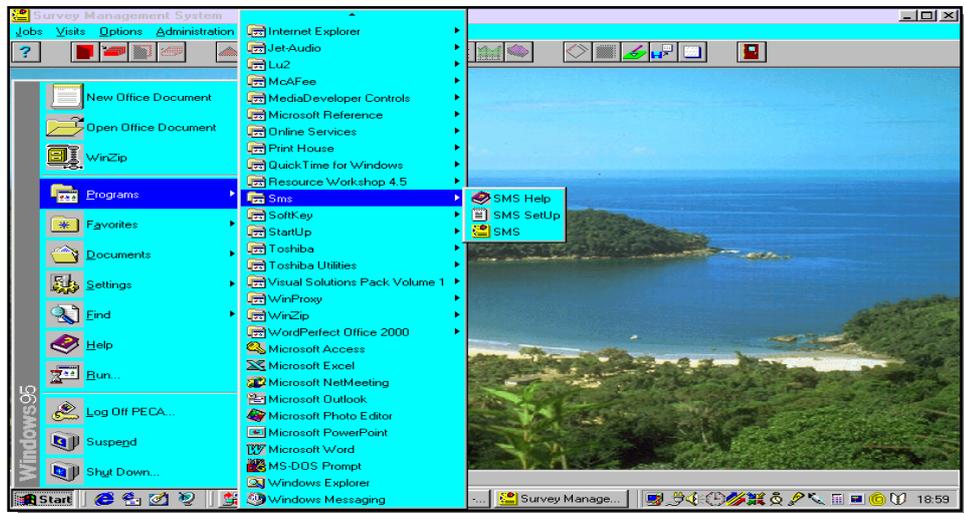


fig 2.2

## Memory

The size of the executable file is about 2.6 megabytes of code and resource data. There is efficient management of heap memory through dynamic allocation and disposal of objects and memory blocks. It could fail if a file is corrupt, and lead to termination of program. In such a rare situation, the solution is to overwrite the job data base with a copy of the back-up file.

The program provides recovery and alert mechanism where memory is not enough for a particular operation.

## Program Structure

The interface describes the structure of the program. It consists of three components, the menu bar at the top of screen, desktop and status line at the bottom, Fig 2.3.

## Menu Bar

This contains the main menu of the application. Each element in the bar has a set of sub menus that drop down on command. In some instances, an element in the sub menu may have a further set of menu options.

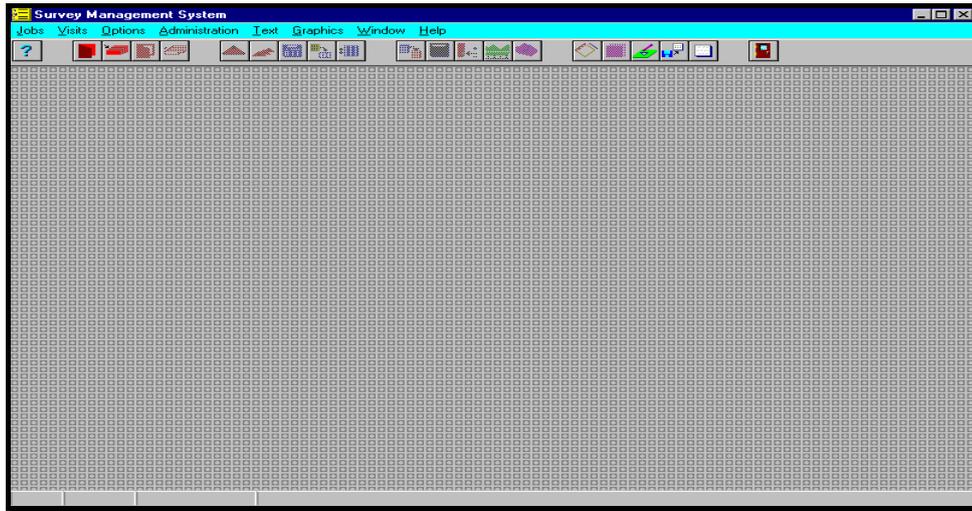


fig 2.3

Below the menu bar is the tool bar which offers instant access to main program commands. The program is event-driven and has a menu structure such as in Fig 2.4.

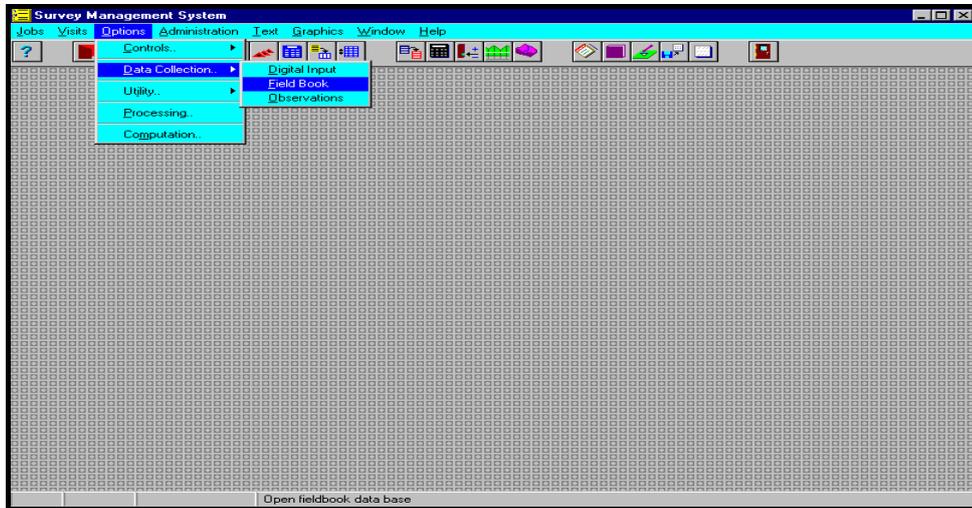


fig 2.4

Certain commands may not be accessible at some stages in program execution. This is because they require a set of information that will become available by executing relevant menu commands or it is simply to avoid conflicts between menu selections. The process of selecting a menu can be by mouse clicks, arrow keys or short-cut of key combinations.

## Desktop

The desktop provides a background for the execution of commands. The software is a window-based application and the processes of executing most commands involve installation of window objects into the desktop. When the desktop is clear, the program is idle and maximum heap memory is available. At the recommended video and colour settings the background should consist of a dithered and brown image or the picture in *smsdesk.bmp*.

### Status Line

This is a data base of help information linked to menu commands. Whenever a menu is selected, the relevant information guide appears in the status line. It allows users to follow program execution.

### On Line Help

Comprehensive on line help is available, on command from the tool bar,  or program menu. The help file, 'SMSHELP.HLP', is structured after the program manual, Fig 2.5, with full search and browse facilities.

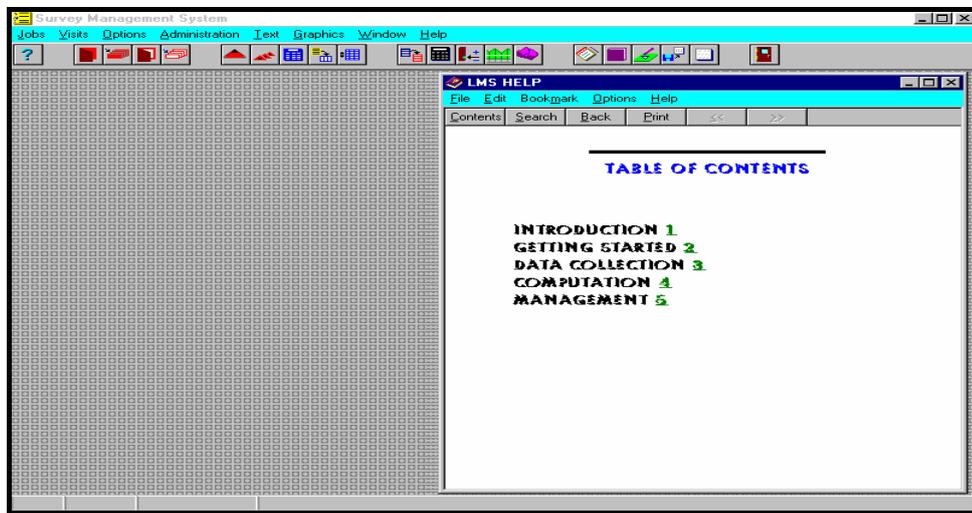


fig 2.5

### Conclusion

The above discussions conclude this section on preliminary requirements. It will now be possible to start using the software. The discussions in the next sections provide examples and guidelines.