Computer Spreadsheet Applications in Building and Surveying

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Computer Spreadsheet Applications in Building and Surveying

B. Cooke and S.V. Balakrishnan

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MACMILLAN

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Preface

The book is intended to encourage both building managers and students to develop spreadsheet applications as an aid in the utilisation of microcomputers in building.

A range of applications are outlined which relate to office and accounting routines through to cash flow predictions. A number of procedures are indicated relating to the standardisation of monthly valuations and payments to subcontractors. Further applications relate to site surveying procedures including the reduction of levels, traverse calculations and the presentation of data for setting out circular curves. The spreadsheet format can be readily adapted to estimating procedures as well as to preparing development budgets at the contract feasibility stage.

Within each application area, the basic principles are first outlined together with the development of a blank master screen display which lays out the various headings for the spreadsheet. A worked example and full cell listings are included where possible. Full instructions are outlined to enable the user to develop his own screen display from the listings. A disk copy is also available (see appendix III).

The spreadsheet applications are based on using the VisiCalc[®] program diskette (VisiCalc is a registered trademark of VisiCorp Inc., San Jose, California, U.S.A.). This is suitable for use on the Apple II and III, Atari 800, Commodore PET 2001 and 8032, DEC, Hewlett-Packard 125, IBM Personal Computer and TRS 80 Model 1.

The program listings may be directly input on to the UltraCalc spreadsheet available for the BBC Model B computer, developed by BBC Software. Instructions are included for adapting the program listings to the BBC Model B computer.

PROGRAM DISK AVAILABILITY

The spreadsheet programs contained in chapters 2 to 5 are available on a 5¼ inch disk for the Apple II + C, 48K microcomputer and the BBC Model B microcomputer. Refer to appendix III for details of how to obtain the disk. The user must obtain the appropriate VisiCalc diskette or UltraCalc ROM in order to run the program disk available.

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The work undertaken in editing the script was ably carried out by Mr W. Perry, without whose expertise and advice we would not have been able to produce a readable text.

Finally we hope that building and surveying students and lecturers will gain from our experiences in developing the spreadsheet applications outlined.

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