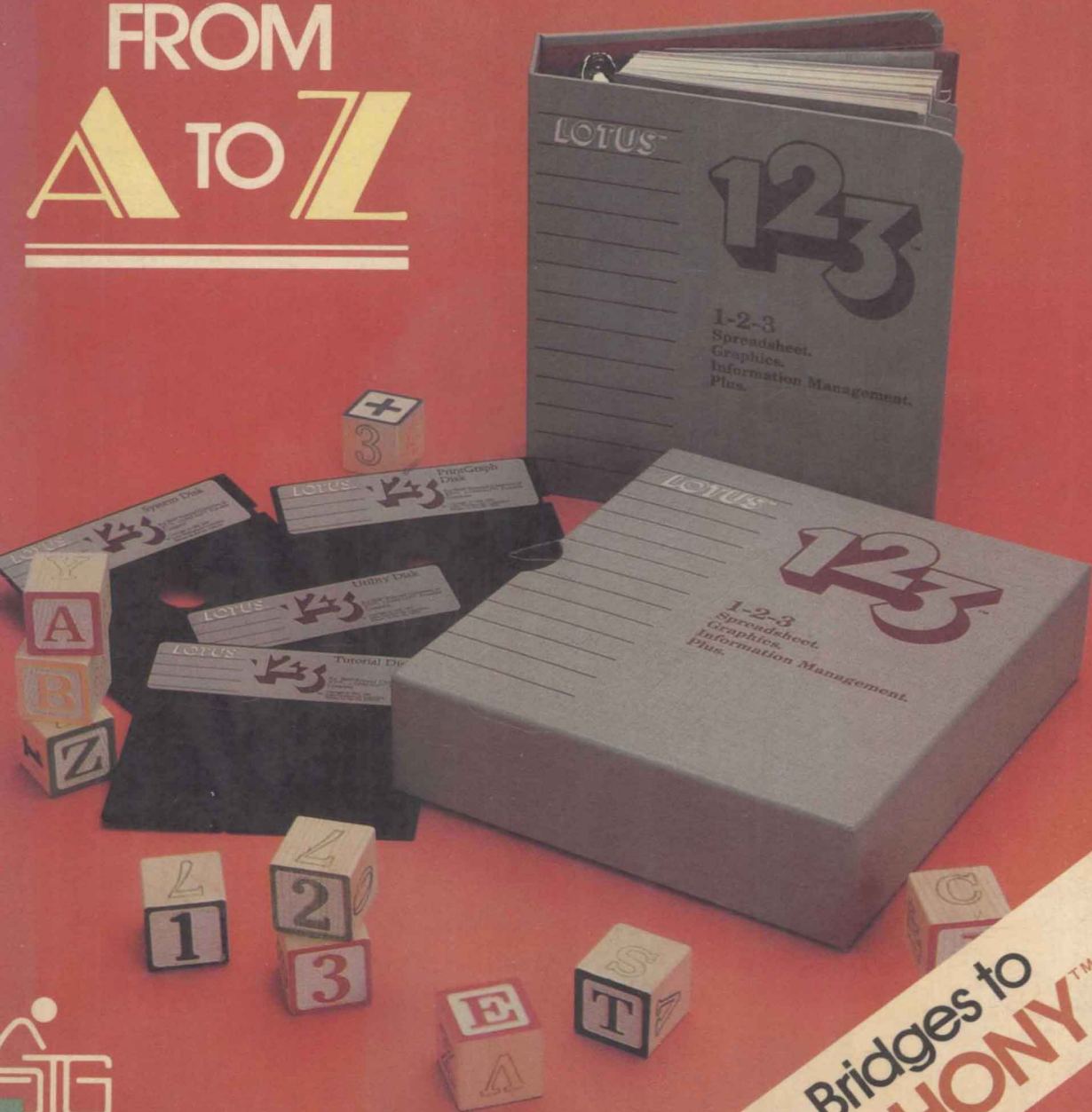


# LOTUS<sup>TM</sup> 123<sup>TM</sup> FROM A TO Z



Andrew T. Williams

With Bridges to  
**SYMPHONY<sup>TM</sup>**

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# **LOTUS<sup>TM</sup> 1-2-3<sup>TM</sup> FROM A TO Z**

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**Andrew T. Williams**

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## Dedication

To the memory of my parents.

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Many people contributed directly or indirectly to the making of this book. It is a better book for their help. In particular, Linda Williams helped turn half formed ideas into concrete prose by her willingness to listen, to make suggestions (tactfully), and, when called upon, to read parts of the manuscript. One could not have a better partner in this enterprise.

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# PREFACE

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Lotus 1-2-3 started a revolution in microcomputer software. It was introduced in the Spring of 1983, and it quickly became the best selling program of any type for the IBM Personal Computer. In a market where IBM PC “compatible” has become a buzz word, the real compatibility people seek is 1-2-3 compatibility. Both *InfoWorld*, a microcomputer trade publication, and *Fortune*, the widely read business magazine, named Lotus 1-2-3 software Product Of The Year for 1983.

Lotus 1-2-3 does two things to deserve this praise. The first is to successfully integrate an electronic spreadsheet, database functions, and graphics in one package. Users like the ability to move back and forth between these modes—to analyze information both numerically and graphically, and to use the database functions to sort the rows of a worksheet into a new order or to search for entries that meet a particular criterion. But integration isn’t enough. There are other integrated products on the market, and they haven’t met with Lotus’ phenomenal success.

The real key is that 1-2-3 is an elegantly designed program. It provides all of the features found on any other electronic spreadsheet program (and more). But what sets Lotus apart from a Multiplan or a SuperCalc is that—in spite of its power—Lotus is easy to learn and easy to use.

There are three major areas in which Lotus surpasses the competition. First, Lotus introduced an “expanding cursor.” Many spreadsheet functions—copying, moving, printing, etc.,—require you to designate a range of cells for action. Lotus displays the selected cells in reverse video (dark characters on a light background). The expanding cursor makes the task of selecting ranges particularly easy.

Next, Lotus makes extensive use of full English word command names and long, informative prompt messages. By reading the screen, you always know what choices are available and what response 1-2-3 expects.

Finally, 1-2-3 introduced a tremendous library of help screens. These screens display help that is keyed to your particular need at a particular point in the program.

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Any one of these innovations by itself would not have made for a great program. But when augmented with dozens of other less sweeping features, the combination adds up to a level of ease of use that has simply not existed before.

## How To Use This Book

*Lotus™1-2-3™ From A To Z* is a complete guide to Lotus 1-2-3. The structure of the book mirrors the structure of the commands and modes of 1-2-3. Part A covers the basics of getting started with 1-2-3. Part B is about the worksheet mode, the 1 of 1-2-3. The major commands—Worksheet, Range, etc.—are discussed in separate chapters. Part C is on the Database command, the 2 of 1-2-3, and Part D is on the Graph command, the 3 of 1-2-3. Appendices A and B cover key assignments on particular machines and an advanced feature of 1-2-3 called the Typing Alternative. Appendix D explains how to use Symphony's Telecommunications environment.

Each 1-2-3 command is discussed, and examples are given to illustrate the major points. Each command and each major subcommand are outlined in command trees. These diagrams show exactly what will appear on the screen at each point in a command. The command trees give you a quick, overview of a command and the choices it presents.

To get a step-by-step treatment, you can read straight through *Lotus™1-2-3™ From A to Z*. You may, however, want to skip ahead and read those parts of Chapter Six (The File Command) and Chapter Seven (The Print Command) that describe the basic techniques of saving and printing electronic spreadsheets. You can also turn directly to the chapters on the Data command and the Graph command should you need those features before you complete your study of the Worksheet commands.

Most chapters contains a Hands On section. Be sure to take the time to do these exercises. By actually using a command, you gain a mastery that cannot be achieved by reading the text alone. Each chapter concludes with a Self Test. The questions in the Self Test highlight the major concepts covered in the chapter. Use them to review your understanding.

Finally, in Chapter Eight there is a list of ten tips for constructing 1-2-3 worksheets. You will want to consult that list as soon as you begin constructing worksheets. The tips bring together in one place the most important principles of spreadsheet construction.

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# Symphony

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## The Bridge To Symphony

In 1984 Lotus 1-2-3 acquired a big brother, Symphony, an even larger integrated spreadsheet program from Lotus Development Corporation. In many ways Symphony is an advanced version of 1-2-3, and thus many people who buy 1-2-3 will want to know how it compares with Symphony. Throughout *Lotus™1-2-3™ From A To Z* you will find boxes like this one containing text about the similarities and differences between the two programs. Taken together these boxes form **The Bridge To Symphony**. Should you need to, you can use The Bridge To Symphony to make the trip from 1-2-3 to Symphony quickly and with a minimum of effort.

The Bridge To Symphony begins in Chapter 1 with a detailed overview of Symphony as it compares to 1-2-3. Readers who use databases will find the detailed instructions in Chapter 9 for using the Forms Generate command of particular interest. And everyone should read the Epilogue which poses the question “Do you really need a Symphony when you can make such beautiful music with a Trio?” This is an important issue so if you are considering buying Symphony in place of 1-2-3 or considering trading in your 1-2-3 package for Symphony be sure to read the Epilogue. Finally, Appendix C gives step-by-step instructions for using Symphony’s Telecommunications environment to send and received spreadsheet information.

As you work your way through *Lotus™1-2-3™ From A To Z*, you can read the Symphony material as you go along or you can skip over it. The material is self-contained and neither your understanding of Lotus nor your understanding of Symphony will suffer if you leave the Symphony material until later.

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# PART A

# GETTING STARTED

# WITH LOTUS 1-2-3

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Before you begin to construct electronic spreadsheets with Lotus 1-2-3, you must do and learn a number of things. Part A covers that “preconstruction” material.

Chapter one, “The ABC’s of Lotus 1-2-3,” is an overview of the worksheet, graphics, and database features of 1-2-3. The chapter shows how information can be organized into a worksheet and how that worksheet can be sorted with 1-2-3’s Database commands. The Graph command is then used to display numerical information pictorially so important relationships can be quickly understood.

Chapter two, “Getting Ready to Use 1-2-3,” explains what you must do to prepare the magnetic diskettes that come in the Lotus package for use on your microcomputer. This chapter also gives you a tour of the Lotus Access System, your computer’s keyboard, and the 1-2-3 screen as it appears on your computer’s monitor. A very important part of chapter two is an explanation of how the Lotus menus work and how to position the cursors (the active parts of the screen) where you want them. The chapter concludes with a “Hands On” session in which you create your first Lotus 1-2-3 electronic spreadsheet.

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# CHAPTER ONE

# THE ABC'S OF LOTUS

## 1-2-3

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### OBJECTIVES

- To become acquainted with electronic spreadsheets.
- To become familiar with the three elements of Lotus 1-2-3; the worksheet, the database, and the graphics function.
- To preview the things to come in *Lotus<sup>TM</sup>1-2-3<sup>TM</sup> From A to Z*.

### INTRODUCTION

#### What is an Electronic Spreadsheet?

An *electronic spreadsheet* is a microcomputer program that allows you to solve problems involving numbers. It is organized into columns and rows like an accountant's spreadsheet, except that it is much larger. From top to bottom, 1-2-3 has 2,048 rows and from side to side, 256 columns. In addition to its great size, it places the lightning fast, error-free calculating ability of a microcomputer at your finger tips.

Electronic spreadsheets allow you to do your job faster, and more efficiently. Because they obviously improve productivity, electronic spreadsheets are largely responsible for the explosive popularity of microcomputers. They give everyone who uses them—executives, managers, owners of small businesses, investors, consultants, researchers, and home owners—an electronic blackboard, a piece of electronic chalk, and an elec-



tronic tool kit with which to solve virtually any problem involving numbers.

The great power of an electronic spreadsheet lies in the fact that it provides you with a *generalized* problem-solving tool. One that lets you find solutions to your problems in your own way, using your knowledge of the situation, and your creativity.

### What is Lotus 1-2-3?

Lotus 1-2-3 is an *integrated electronic spreadsheet* that has set the microcomputer software market on its ear. According to *Softalk For The IBM PC*, it took only 32 days for 1-2-3 to vault into first place on the sales charts. Since then, 1-2-3 has become available on many microcomputers in addition to the IBM PC. But in those first few weeks, demand was so strong that *Softalk* reported: “Buyer acceptance of the program borders on the mania produced in the Apple or Atari markets by a breakthrough in arcade-game programming.”

All the fuss centers on the elegant way 1-2-3 integrates the three most popular analytical programs—the electronic spreadsheet, a database, and graphics—into a single, powerful, easy-to-use package. It makes analyzing any financial or numeric problem as easy as...well...1, 2, 3.

The best way to get a feeling for what 1-2-3 is all about is to see it in action. In the following pages, you will examine a worksheet, a database, and some graphs. You don’t need to know how 1-2-3 works yet. That’s what you will learn in the rest of the book. For now, try to get the flavor of the program, and try to imagine the many ways you can put its features to work for you.

## THE WORKSHEET: THE 1 OF 1-2-3

Lotus 1-2-3 is a powerful, sophisticated electronic worksheet. As a pure worksheet program, 1-2-3 has more features and functions than such popular programs as VisiCalc, Multiplan, or SuperCalc2.

Table 1-1 shows a simple 1-2-3 worksheet. It gives some information about two of life’s great constants: death and taxes. The information in the table is arranged into rows and columns, and you can easily read off interesting facts, such as the per capita income in Switzerland (\$15,455) or the female suicide rate in the United Kingdom (7.9 per 100,000 population). The averages and the standard deviations for each column are shown across the top of the table.

### Commands

The 1-2-3 software includes many commands for constructing, modifying, and analyzing electronic spreadsheets. The commands make the construc-