Using Lotus 1-2-3,

WordStar,

and dBASE III PLUS

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PREFACE

During the past few years, we've taught a few thousand students--college age and professional business managers alike--how to use programs such as Lotus 1-2-3, WordStar, and dBASE III PLUS. We've taught in one-on-one situations, in classroom settings, and in two- and three-day intensive seminars. Virtually all the training we do involves students' hands-on use of computers. As we observe how others learn to use the computer, we've been able to store up a batch of what we think are successful teaching techniques and to discard others that don't seem to work.

Our objective in writing USING LOTUS 1-2-3, WORDSTAR, AND dBASE III PLUS was to take those successful techniques that work well in a classroom with an instructor present and translate them into media (a workbook and a diskette) that a student can use without an instructor.

Of course, nothing can replace a trained teacher at your side: someone who's there to answer questions that printed matter doesn't cover. However, if structured properly, written and diskette-based materials can serve as excellent complements to classroom or individual instruction.

To make your learning experience as meaningful as we know how, we've translated our classroom and seminar experiences into a three-step, self-teaching approach. We call it READ . . . VIEW . . . DO, or RVD for short.

The RVD approach is built around real-world business applications. So as you learn the commands for Lotus 1-2-3, WordStar, and dBASE III PLUS, you'll be able to practice them right away in meaningful exercises. In fact, in most cases you'll see that each exercise builds upon work you completed in previous lessons. So as you progress through the book, you'll create models and examples just like day-to-day users do in the business world.

For each section we cover, we'll ask that you first READ something in order to get a general feel for the topic at hand.

Second, we'll request that you go to your PC and run a short diskette-based VIEW demonstration that will let you see--in action--what we talked about in the READ portion of the lesson.

Then, through a series of exercises, you get a chance to DO the things you've just learned. For each lesson, you'll find detailed, keystroke-by-keystroke exercises that allow you to build an application as you proceed through the book. And for certain topics you'll also find additional general exercises that allow you to experiment, without reference to a specific application, with the commands just covered.

USING LOTUS 1-2-3, WORDSTAR, AND dBASE III PLUS can be used in the following situations:

o   For colleges and universities:

-   As a primary text in a course such as "Introduction to Microcomputers" where the emphasis is on lab work,

-   As a supplemental lab manual to an "Introduction to Computers" course,

-   As a supplemental lab manual to Management, Accounting, Finance, or General Business courses where the instructor wants to focus on microcomputer applications of business principles.

o   For working managers, analysts, and other professionals:

-   As a self-paced workbook that can serve as the first learning tool or as a supplement to reference manuals or other types of training materials,

-   As course notes and workbook for workshops, seminars, or in-house training programs.

We have designed this book for the first-time Lotus 1-2-3, WordStar, or dBASE III PLUS user. Thus, the emphasis of the book is on these programs. However, there are a few general computer-related concepts you'll need to know first, and we cover these in the INTRODUCTION.

This book is divided into four major PARTS. PART 1 covers Lotus 1-2-3 spreadsheets, PART 2 treats Lotus 1-2-3 data bases and graphs, PART 3 deals with WordStar word processing, and PART 4 focuses on dBASE III PLUS data base management. Within each PART, there are several lessons that deal with the specific program covered.

Each lesson is divided into three components:

1.   A text section (the READ portion of our READ . . . VIEW . . . DO approach) that describes a command or function of the program under discussion. For each lesson, the text is divided into the following groups:

-   A general overview of the topic
-   A section called "Some Preliminary Information"
-   A section called "Preparing for the Exercise"

2.   A demonstration of the topic on diskette (the VIEW portion of READ . . . VIEW . . . DO).

3.   An exercise (the DO portion of READ . . . VIEW . . . DO) and accompanying "Tips" and "Troubleshooting Hints" to help should you get lost.

If you have no prior experience with the topic covered by a given lesson, we recommend you cover all three components in that lesson. In other words, you should READ the lesson's text, VIEW the demonstration on the diskette, and then DO the appropriate exercises.

Or, if you're able to grasp concepts quickly, and do not feel the need for re-enforcement, you may want to proceed directly from the text material to the exercises, bypassing the VIEW demonstration.

On the other hand, if you've used a particular command before, you may find you're able to go straight to the exercises without having to READ or VIEW the related material.

However you approach the work, it is _required_ that you complete the exercises for _every_ lesson since many exercises build on work you create in earlier exercises.

NOTE TO INSTRUCTORS: All lessons in this book have corresponding diskette-based demonstrations stored on two VIEW diskettes that the publisher provides to instructors who adopt this book. These diskettes are labeled DEMO123 (for VIEWs of the Lotus 1-2-3 Lessons 1 through 26) and DEMOWD (for VIEWS of the WordStar and dBASE III PLUS LESSONS 27 through 47). To run the VIEWs, make sure DOS is loaded, insert a VIEW diskette into Drive A, and type in the name of the appropriate DEMO.

Many of the exercises in this book require that the student use work files we have created and stored on one data diskette. The publisher will supply you with a diskette that contains these files. We recommend that you make copies of these files for individual student use.

All the exercises have been tested and work with Lotus 1-2-3 Release 1A, 2.0, or 2.1, any MS-DOS version of WordStar, and any version of dBASE III PLUS. Please keep in mind, however, that you may notice some minor differences in such things as on-screen highlighting depending upon what version you're using.

We're anxious to learn how you use these diskettes and this book in your courses and hope you'll contact us should you like to make any suggestions or comments. We thank you for using our book.

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INTRODUCTION

Welcome to USING LOTUS 1-2-3, WORDSTAR, AND dBASE III PLUS.
We're glad you're here. Before you get started with the first
program, Lotus 1-2-3, there are four things we want to cover:

1. The operating system and what it means to you.

2. DOS and some important housekeeping tools you can use.

3. Your Lotus 1-2-3 program diskette.

4. The PC keyboard and how we'll refer to specific keys.

If you've used a PC before, feel free to jump ahead to Lesson 1.

What the Operating System Means to You

Any time you use a program, be it Lotus 1-2-3, WordStar, dBASE
III PLUS, or any other, you first have to put another program--
the operating system--into your computer.
     The IBM PC uses an operating system called PC-DOS (Personal
Computer Disk Operating System), or DOS for short. DOS is a very
special program that, once inside the PC, functions something
like the brains of your computer. Without DOS, not a whole lot
can happen since it's the program that holds all the pieces of
hardware and software together. For example, DOS tells the
printer when to print, the screen when to write something, and
the keyboard when to send your messages to the internal parts of
the computer.
     For programs such as Lotus 1-2-3, WordStar, and dBASE III
PLUS, the operating system sits between the program you use and
the computer so that everything gets moved around properly and
efficiently. (DOS also serves as a general housekeeper for your
computer, and since it's actually a program it has commands that
let you take advantage of its housekeeping functions. For now,
though, you don't have to know how any of these commands work.)
     At this point the most important thing for you to remember
is that DOS must be placed (loaded) into the computer before you
can use any other program. You will know that DOS is in the
computer whenever you see this on your screen: A> Or this: B>
Or this: C>
     If the message on the screen shows the letter "A" and the
greater-than symbol (>), what you see is called the "A prompt."
(If there's a B or a C, then it's called the "B prompt" or the "C
prompt".) Any of these prompts mean you're at the operating
system and that the computer is waiting for a command. After the
> symbol , whatever you type in is interpreted by the computer as
a command. It will look at the disk drive that is indicated by
the prompt and act upon the command you issue. For example, when
you see the A> prompt, the computer will read any command you
type in and look at the diskette in the left-hand floppy disk
drive (the A drive) for the command. The B drive is the right-

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PART 1:   CREATING LOTUS 1-2-3 SPREADSHEETS

LESSON 1:   GETTING LOTUS 1-2-3 UP AND RUNNING

The process of instructing a microcomputer to run a program is a
little like first learning how to ride a two-wheel bicycle. To
someone who has never turned on a PC, the whole thing can be
difficult to explain. Yet once you've had a program running a
time or two, it becomes second nature.

     To begin with, you put, or load, the operating system--PC
DOS--into the machine. DOS is the program that oversees all the
operations of the computer. It coordinates how your hardware and
software pieces work together and generally handles many of the
things you might take for granted. Specifically, DOS acts as an
intermediary between you, 1-2-3, and the computer.

     For example, say you want to use 1-2-3 to build a sales
forecast. When you're done, you'll use a 1-2-3 command to print
out a portion of your work. It's DOS that manages the
communications between 1-2-3, the computer, and your printer to
give you something on a piece of paper. (There's more
information about DOS in the INTRODUCTION so please refer to that
section if you'd like more specifics.)

Some Preliminary Information

For purposes of this lesson, we assume you're able to get your
computer to the DOS "A>" prompt. At the A> prompt, your computer
is waiting for you to issue a command so that it knows how to
proceed. Since programs such as 1-2-3 are nothing more than a
whole series of commands strung together, you need to issue one
command to the computer--usually in the form of the name of the
program--so that something will happen.

     The most straightforward way to load the 1-2-3 program is to
insert the 1-2-3 System Disk into disk Drive A, type in "123"
(the command--or name of the program--DOS waits for), and press
{ENTER}.

     The command "123" instructs your computer to load a program
called "123" into memory. As it does this, you'll notice that
the computer pauses for 20 to 30 seconds while the program is
read off the System Disk you inserted into Drive A. Once 1-2-3
is loaded, you'll see a screen that looks like Exhibit 1.1.

Exhibit 1.1   An Empty Lotus 1-2-3 Screen

A1:   READY

	A	B	C	D	E	F	G	H
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

What you're looking at is a worksheet, or a spreadsheet as it's often called. Immediately you'll notice that several letters, from A through H, run across the top of the screen, and that several numbers, from 1 through 20, run down the left-hand side of the screen. The letters represent columns and the numbers represent rows. It's in these columns and rows that you'll ultimately enter numbers, textual characters, and mathematical formulas.

You'll also note an "A1:" message in the upper left-hand corner, a highlighted box in the first row of Column A, and a highlighted "READY" indicator in the upper right-hand corner of the screen. True to its word, Lotus 1-2-3 is ready for action.

Preparing for the Exercise

1. Insert a DOS diskette into Drive A.

2. Turn on the machine and monitor.

3. Press {ENTER} twice to bypass the date and time prompts and to get to the A> prompt.

4. Remove the DOS diskette and insert the Lotus 1-2-3 System diskette in Drive A.

5. Type "123" (without quotation marks) and press {ENTER}.

Exercise 1

Complete Exercises 1, 2, and 3 at the same time. Your objective
is to load Lotus 1-2-3 into your computer's memory so you can
begin work on your first worksheet. When you complete this
exercise you should see a screen that looks something like
Exhibit 1.2.

   Exhibit 1.2   Your Worksheet at the End of This Exercise

A1:   READY

        A   B   C   D   E   F   G   H
 1
 2
 3
 4
 5
 6
 7
 8
 9
10
11
12
13
14
15
16
17
18
19
20

WHAT YOU DO OR TYPE   WHAT HAPPENS

  1. Insert DOS diskette   Will cause DOS to be loaded when
      into Drive A   the machine is turned on.

  2. Turn on machine and   Loads DOS into the machine, gives
      monitor   a date, and asks you:

                                   Current date is Tue 1-01-1980
                                   Enter new date:

  3. {ENTER}   Bypasses the optional date entry
                                   and prompts you for a time:

                                   Current time is 0:00:28.94
                                   Enter new time:

4.   {ENTER}   Bypasses the optional time entry,
                                       gives you a notice about your
                                       version of DOS, then brings you
                                       to the A> prompt where you can
                                       issue a command.

##

TROUBLESHOOTING HINT

In Steps 3 and 4 above, we've indicated that you should use press
the enter key by showing this as {ENTER}. If you don't recall
how we're designating the various keys, please return to the
INTRODUCTION and review the section on the keyboard.

##

5.   Remove the DOS diskette
      and insert the Lotus 1-2-3
      System Disk into Drive A

6.   123   The name of the main program
                                       on the 1-2-3 System Disk.

7.   {ENTER}   Causes the 1-2-3 program to be
                                       loaded into computer memory and a
                                       blank worksheet to be shown.

##

TROUBLESHOOTING HINT

If, by the end of Step 7, you don't have a blank worksheet
showing Columns A through H and Rows 1 through 20 on your screen,
then your best bet is to begin the exercise all over again.
      Make sure your diskette is inserted correctly--label up and
notch to the left--and that all machine and monitor cables are
attached properly.
      If you still experience problems after a third or fourth
attempt to load the program, you should call your instructor or
lab assistant for help.

##

```
**************      TIP      **************
*                                         *
*   Software packages fail to load for    *
*   many different reasons.  Sometimes    *
*   it's just a matter of a misaligned    *
*   section on the diskette or disk       *
*   drive.                                 *
*        As un-high tech as it may sound, *
*   you can often get a troubled diskette *
*   to load just by removing it from the  *
*   drive and then blowing on the write-  *
*   protect notch or else by shaking it   *
*   very gently so that the diskette      *
*   moves around slightly within its      *
*   jacket.                                *
*                                         *
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```

LESSON 2:   MOVING AROUND WITHIN A WORKSHEET

Okay, so 1-2-3 is loaded into your PC and there's a blank
worksheet on the screen.   There are columns with alphabetic
indicators and rows with number indicators.   Since you'll be
entering data into these rows and columns, you need to have a way
to refer to the various places on the screen.   An intersection of
any column and any row is called a "cell."   So, where Column A
intersects with Row 1 is a cell; where Column A intersects with
Row 2 is another cell; and so on.   To make it easy to keep track
of what is what, 1-2-3 refers to each cell by its column and row
coordinates.   Thus, the intersection of Column A and Row 1
becomes cell A1.   A worksheet with a few cells is shown in
Exhibit 2.1.

Exhibit 2.1   A Lotus 1-2-3 Screen with Selected Labeled Cells

A1:   READY

	A	B	C	D	E	F	G	H
1								
2	A2							
3		B3						
4								
5								
6								
7					E7			
8								
9	A9							
10								
11								
12			C12					
13								
14							G14	
15								
16								
17		B17						
18								
19								
20						F20		

     1-2-3 has the capacity to store a huge worksheet.   In fact,
there are 256 columns and 8192 rows.   And since there are so many
columns, a special labeling system was devised to keep track of
them.   The first 26 columns are labeled as A through Z.   In the
twenty-seventh column, a new alphabetic sequence begins with AA.
Column 28 is labeled AB.   Column 53 (the beginning of the third
alphabetic sequence) is labeled BA.   So when you get out to the
two hundred and fifty-sixth column, you'll see a label of IV.
When you consider this matrix as a whole you might be surprised
to learn that there are a total of 2,097,152 cells.   If you were

to print a worksheet of that size you would need a sheet of paper
21 feet wide by 168 feet tall. That's over 14 stories high!

Some Preliminary Information

The potential size of these worksheets is one of the things that
initially confuses new 1-2-3 users. What's important to keep in
mind while viewing your screen is that at any given time you're
only looking at a very small part of the total work area. Your
screen is merely a window to your worksheet, a window that
usually displays only eight columns by 20 rows.
     You navigate around your worksheet by moving 1-2-3's "cell
pointer." The cell pointer is a highlighted rectangle that
indicates which cell you're currently in. When you started 1-2-3
in Exercise 1, the cell pointer was in A1 (Column A, Row 1) and
the current cell address (the coordinates, A1) was shown in the
upper left-hand corner of the screen. (Exhibit 2.1 also reflects
this.) As you move your cell pointer, the highlighter on your
screen moves. As the highlighter moves, the cell address
indicator changes to reflect the current position of your cell
pointer. Eventually, if you move the cell pointer far enough,
your window may shift since it can only hold so many rows and
columns on the screen at one time.
     To move the cell pointer, you use the keys on the numeric
keypad on the right side of the keyboard. Referring to this
area, in the case of 1-2-3, as a numeric keypad is a little
misleading because it only functions as a numeric keypad when you
press {NUM LOCK} to make the numbers active. Otherwise, the
other things on the keys are activated. That's why most people
use the number keys across the top of the keyboard for numeric
entry, while the keys on the numeric keypad are best used as cell
pointer movement keys. The keys that move the cell pointer work
like this:

{HOME} : Moves cell pointer to A1

{UP} arrow : Moves cell pointer one cell up

{PGUP} : Moves cell pointer 20 rows up

{LEFT} arrow : Moves cell pointer one cell to the left

{RIGHT} arrow : Moves cell pointer one cell to the right

{END} : Used in conjuction with arrow keys to make large
        cell pointer movements (more on this one later)

{DOWN} arrow : Moves cell pointer one cell down

{PGDN} : Moves cell pointer 20 rows down

     Depending on where your cell pointer is positioned, when you
use the movement keys you may not only change the pointer's
location but you may also cause the window to your worksheet to

shift. For example, say your cell pointer is in cell A20 at the bottom of your screen. If you press {DOWN}, your window into the worksheet shifts down one row as the cell pointer moves to A21. And since there is only enough room on the screen for 20 rows, Row 1 drops off the screen.

By far the best way to get comfortable with the cell pointer movement keys is to spend some time experimenting with them. That is exactly what you'll do in Exercise 2.

Preparing for the Exercise

1. Locate the cell pointer movement keys on the far right-hand side of the keyboard (on the numeric keypad).

2. To move the cell pointer one cell at a time, press {UP}, {RIGHT}, {DOWN}, or {LEFT} depending on which way you want to move.

3. To move the cell pointer 20 rows down, press {PGDN}. {PGUP} moves the cell pointer 20 rows up.

4. From anywhere within the worksheet press {HOME} to take the cell pointer back to A1.

Exercise 2

Complete Exercises 1, 2, and 3 at the same time. Your objective is to move from one place to another in a worksheet and to get a feel for the size of the work area.

WHAT YOU DO OR TYPE   WHAT HAPPENS

1. {RIGHT}   Moves you from A1 to B1.

##

TROUBLESHOOTING HINT

Make sure {NUM LOCK} is turned off. When you are in 1-2-3, you can tell that {NUM LOCK} is off if you do not see a NUM indicator at the bottom right-hand side of the screen. So when you press {RIGHT} (the "6" key) on the numeric keypad, the cell pointer should move one cell to the right. You should not see the number "6" appear on your screen.

If you get numbers instead of cell pointer movement, press {NUM LOCK} and notice that the NUM indicator goes off. Then try the cell pointer movement keys again. By the way, if you get characters, words, or numbers on your worksheet by mistake, don't worry. Later on we'll show you how to clean up your errors.

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