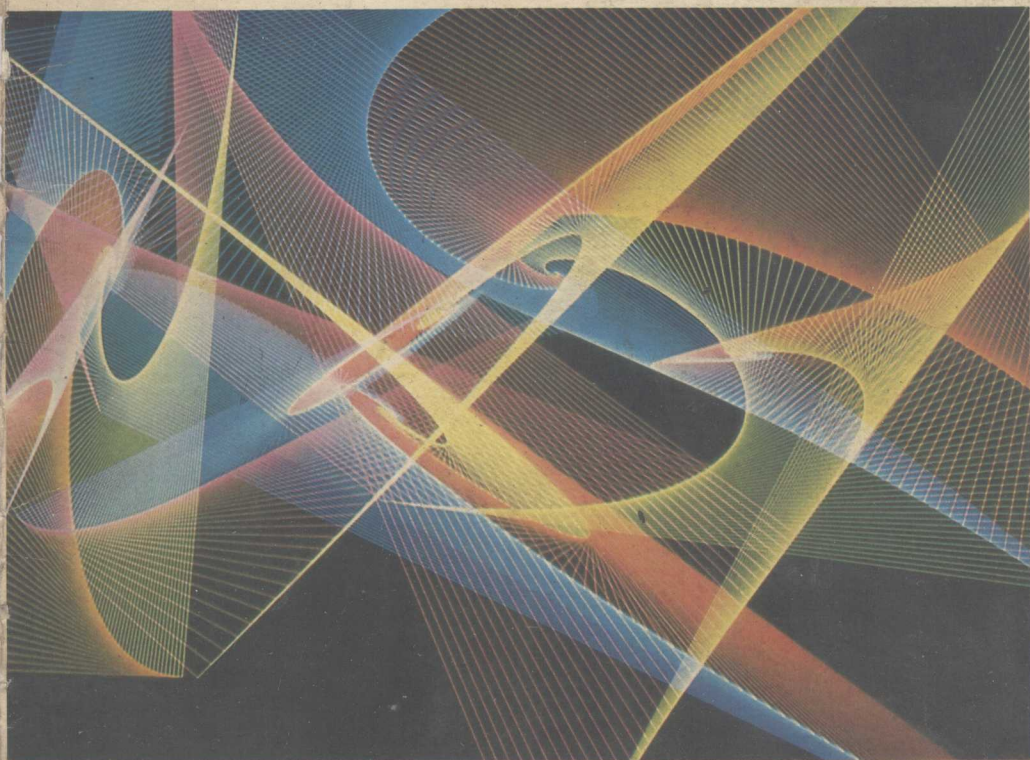


AN INTRODUCTION TO
VISICALC[®]
MATRIXING FOR APPLE[®]
AND IBM[®]

HARRY ANBARLIAN



A BYTE BODY

AN INTRODUCTION TO
VISICALC®
MATRIXING FOR APPLE®
AND IBM®

HARRY ANBARLIAN

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AN INTRODUCTION TO VISICALC® MATRIXING FOR APPLE® AND IBM®

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THIS BOOK IS DEDICATED TO
MY VERY LOVELY AND
EXTRAORDINARILY TALENTED
WIFE, MARINA,
WHO NOT ONLY CREATED THE
FORMAT FOR THIS BOOK, BUT
TYPED IT AND PROVIDED THE
ENTHUSIASTIC LOVE AND SUPPORT
TO MAKE IT ALL POSSIBLE!

P R E F A C E

- This book is designed to give you, the micro-computer user, hands-on experience in creating your own VisiCalc reusable matrixes.
- This book is primarily, but not exclusively, for Apple and IBM Personal Computer users who know nothing about programming and very little about microcomputers but know a great deal about what they want their microcomputer to do automatically for them through the creation of reusable VisiCalc matrixes.
- This book is for impatient microcomputer users who want to show results quickly, without programming knowledge, without programmers and without fuss. It is for those of you who perhaps have read the VisiCalc manual but do not initially have the time to digest and use all the many and varied outstanding features of VisiCalc.
- This book is for you, whether you are in business, government, school or at home, who want a tool that you can use (matrixing) to create and display, in simple English, problem-solving uses for your microcomputers.
- Finally, this book is for those of you who may not have bought a microcomputer at all, had it not been for VisiCalc.

PREFACE

Although this book is primarily for Apple and IBM Personal Computer users, much of the information is not specific to any particular microcomputer and can be helpful to all users of the VisiCalc program. However, it is most important to keep in mind that the only way to learn matrixing is to do it. Therefore, you definitely need a microcomputer that can use VisiCalc software to learn VisiCalc matrixing as explained in this book.

This book will give you the ability to use VisiCalc to create matrixes (also known as Templates and Models) for your own needs and specifications. It's almost like having a phonograph record with an orchestra on it that you can direct to create your own music. This book will give you, through hands-on experience, the ability to direct your microcomputer to productive use almost immediately, without having to learn any complex programming languages. You will learn to create automated programs (matrixes) at your own pace and control.

We intend that after you complete the step-by-step matrixes, which are designed to increase in complexity, you will be able to create matrixes tailored to fit your own individual business, government, home or educational needs. You certainly will have a better understanding of the wide range of uses for VisiCalc matrixes after completing this book, and some of you may even want to create a library of matrixes common to varying tasks for others to use. Those of you who use the Apple microcomputer can, after finishing the matrix exercises designed for Apple applications, go on and, with a little imagination, convert the matrixes applicable to the IBM Personal Computer to Apple's use and vice versa. Chapter 1 contains a listing of comparable VisiCalc commands for both

PREFACE

the Apple and the IBM Personal Computer which should help you convert the step-by-step exercises applicable to each.

All of the matrixes in this book are simply presented and the step-by-step process leaves little to your imagination. Furthermore, we are very much aware that a book of this kind requires that the VisiCalc matrixes work and are defect free. To that end, my wife, Marina, who has absolutely no knowledge of computers or programming, tested each matrix, and her acute observations ensured that this book was simple and free of any explanations or matrixes that a layperson would not understand. It is also interesting to note that all of the step-by-step instructions for this book were created on VisiCalc, saved on diskette and printed on a Qume Printer.

We have offered a wide variety of sample matrixes, such as Electric Bill for home or business use, Charts for business or school presentations, and even Zero Base Budgets and Calendars for government, business and home use.

We hope this book will help you unleash your creative powers so you can proceed to develop VisiCalc matrixes in areas we have not dreamed of.

Harry Anbarlian

C O N T E N T S

● <u>PREFACE ...</u>	xi

SECTION 1 ... AN INTRODUCTION TO VISICALC MATRIXING	

● <u>INTRODUCTION ...</u>	3
WHAT IS VISICALC MATRIXING?	3
WHY THIS BOOK IS WRITTEN IN FOUR SECTIONS	3
HOW TO USE THIS BOOK	4
HOW TO USE THE EXERCISES	4
BEFORE YOU START	9
READY TO BOOT UP VISICALC	10
● <u>CHAPTER 1 ... THE VISICALC BLACKBOARD ...</u>	12
BOXES ON THE VISICALC BLACKBOARD	15
THE BLACKBOARD	16
HOW THE BOXES WORK	18
VALUE BOXES AND LABEL BOXES	21
MOST USED APPLE/IBM KEYS	25
HOW TO USE THE COMMANDS	34

CONTENTS

SECTION 11 ... FOR APPLE

●	<u>CHAPTER 2 ... THREE SIMPLE APPLE MATRIXES ...</u>	42
	PETTY CASH VOUCHER MATRIX	44
	APPOINTMENT CALENDAR MATRIX	52
	CREDIT CARD RECORD MATRIX	65
●	<u>CHAPTER 3 ... THREE MODERATELY COMPLEX APPLE MATRIXES ...</u>	72
	TREASURY BILL INVESTMENT YIELD MATRIX	74
	PAYROLL MATRIX	82
	CONSTRUCTION TRADES EEO MATRIX	92
●	<u>CHAPTER 4 ... THREE COMPLEX APPLE MATRIXES ...</u>	100
	BAR GRAPH MATRIX	102
	ELECTRIC BILL MATRIX	110
	ZERO BASE BUDGET MATRIX	122

SECTION 111 ... FOR IBM

●	<u>CHAPTER 5 ... THREE SIMPLE IBM MATRIXES ...</u>	135
	PRICE EARNINGS RATIO MATRIX	137
	ORGANIZATION CHART MATRIX	145
	INVENTORY COST MATRIX	153

CONTENTS

●	<u>CHAPTER 6 ... THREE MODERATELY COMPLEX IBM</u> <u>MATRIXES ...</u>	160
	STUDENT'S BUDGET MATRIX	162
	EDUCATION/SELECTION IMPACT RATIO MATRIX	173
	TRAVEL EXPENSE VOUCHER MATRIX	183
●	<u>CHAPTER 7 ... THREE COMPLEX IBM MATRIXES...</u>	194
	DEPARTMENTAL AGE ANALYSIS MATRIX	196
	COST/SALES COMPARATIVE BAR GRAPH MATRIX	206
	STOCK PORTFOLIO MATRIX	215
<hr/>		
SECTION IV ... THE POLISHED MATRIX		
<hr/>		
●	<u>CHAPTER 8 ... HOW TO CREATE POLISHED</u> <u>MATRIXES ...</u>	225
	INSERTING LINES - SPACES	228
	MATRIXES WITH TITLES, NAMES AND DATES	233
	CONSOLIDATING EXISTING MATRIXES	236
	PRINTING MATRIXES	240
●	<u>INDEX ...</u>	243

S E C T I O N 1 ...

AN INTRODUCTION TO VISICALC MATRIXING

● INTRODUCTION ...

● CHAPTER 1 ...

THE VISICALC BLACKBOARD

AN INTRODUCTION TO

VISICALC MATRIXING

I N T R O D U C T I O N

- WHAT IS VISICALC3
MATRIXING?
- WHY THIS BOOK IS3
WRITTEN IN FOUR
SECTIONS
- HOW TO USE THIS4
BOOK
- HOW TO USE THE4
EXERCISES
- BEFORE YOU START9
- READY TO BOOT UP10
VISICALC
- BEFORE YOU READ11
THE NEXT CHAPTER

I N T R O D U C T I O N

● WHAT IS VISICALC MATRIXING? ...

The dictionary defines matrix as "that which forms or determines".

VisiCalc can be defined as a multi-purpose, problem-solving software package that by way of an electronic worksheet, utilizes the microcomputer's powerful memory in performing calculations.

Combine the two definitions and VisiCalc matrixing is creating reusable, saveable electronic worksheet forms, which through VisiCalc, utilize the microcomputer's powerful memory in performing calculations designed for your own specific applications.

● WHY THIS BOOK IS WRITTEN IN FOUR SECTIONS ...

This book is written in four sections, Sections I, II, III and IV. Section I is to introduce you to VisiCalc matrixing. Section II is written for VisiCalc matrixing on the Apple and Apple II Plus. Section III is written for VisiCalc matrixing on the IBM Personal Computer. And Section IV is devoted to how to create polished matrixes. Although much of this book is not specific to any particular microcomputer, we felt that it is much simpler and quicker to

I N T R O D U C T I O N

learn VisiCalc matrixing by initially using exercises that are written for specific micro-computers.

● HOW TO USE THIS BOOK ...

The most important chapters in this book contain exercises that will give you hands-on experience in creating VisiCalc matrixes. The exercises are Simple, Moderately Complex and Complex. Although some of the matrixes can be very useful to your own specific applications, they are designed to cover a wide spectrum of uses. You will see the countless ways VisiCalc matrixes can be used, limited only to your own creative imagination. If you follow the simple steps in the hands-on exercises, you will not only create useful VisiCalc matrixes, but you will also learn, step-by-step, how each matrix is created, so you can create original matrixes of your own.

● HOW TO USE THE EXERCISES ...

Each exercise is designed to help you to gain the hands-on experience to create VisiCalc matrixes that will solve specific problems through a systematic step-by-step process.

Each exercise contains the following:

a. OBJECTIVE

The objective will explain the purpose for creating the matrix. It simply states the problem to be solved. As you read the ob-

I N T R O D U C T I O N

jective of each exercise, you may want to list other specific objectives that occur to you, so that at the end of the exercise you may want to tailor the matrix to meet your own individual applications.

b. DOING IT BY HAND

The purpose of this part in each exercise is to simply state how you would solve the problem if you did not have a microcomputer. Just keep in mind that the steps as described generally compute one item at a time, whereas the microcomputer will calculate all of the items in a fraction of the time - with no errors. This part also contains all formulas that are required to solve the problems the matrixes are created to automatically calculate.

c. ACTUAL STEP-BY-STEP INSTRUCTIONS FOR CREATING

A BLANK MATRIX

This part contains the actual steps you will type to create the matrixes. Each exercise will be in the following format:

BOX

LOCATION	TYPE THE FOLLOWING	EXPLANATION
----------	--------------------	-------------

START WITH THE CURSOR SET ... ()

Each item in the above format is explained below:

I N T R O D U C T I O N

BOX LOCATION

Identifies where on the screen (electronic worksheet) the information will be typed in. Box Location is also known as the cursor location.

TYPE THE FOLLOWING

The typing steps are designed to be followed with no deviations. We have indicated use of the Space Bar for separations between words and the use of the Shift Key to activate the upper part of a key, on the key board, when required. In all cases, follow the steps exactly as indicated, until you become experienced enough to make matrix modifications to suit your own applications.

START WITH THE CURSOR SET ... ()

On The Apple II and Apple II Plus the Space Bar not only controls the space between words or numbers, but sets the direction of the cursor UP/DOWN (!) and SIDEWAYS (-). Therefore, it is most important to start typing with the cursor moving in the right direction. Before you start typing, check the direction the cursor is set to move in by looking at the upper right corner of the control panel next to the letter C on your VisiCalc screen. Make sure the marker (!), (-), is pointing in the same direction as shown in the book. If it is not, press the Space Bar; that should change the marker to the correct beginning position.

I N T R O D U C T I O N

Since the IBM Personal Computer has four directional keys, the Space Bar is not used to control direction of the cursor, but more on this topic in the next Chapter.

EXPLANATION

The explanations for each of the steps that are typed will help you to understand those few steps that are not in plain English. Unfortunately, there are some steps that will only become clear after you read the explanation. Most, however, are there to make your format tailored to look better or line up labels to numbers, set numbers in dollars, repeat formulas and so on. These items will also be explained in more detail in the next Chapter.

The Explanation Column is also helpful to you in identifying and understanding the working formulas in your matrix. As you become more experienced, the formula locations and steps to execute them will become more apparent.

d. ILLUSTRATION OF COMPLETED BLANK MATRIX

If the actual step-by-step instructions are followed exactly then your blank matrix shown on the screen should look like the one in the book, ready to be used. At that point in the exercise you can also identify any future changes you may want to make to tailor the matrix to your own needs or you may be inspired to create some original matrixes for special applications.