# SPREADSHEETING ON THE TRS-80® COLOR COMPUTER

# HARRY ANBARLIAN



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# SPREADSHEETING ON THE TRS-80® COLOR COMPUTER





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THIS BOOK IS DEDICATED TO MY VERY LOVELY AND EXTRAORDINARILY TALENTED

wife, MARINA ...

BUT FOR THIS BOOK, WHO NOT ONLY CREATED THE

TYPED IT AND PROVIDED THE TO MAKE IT ALL POSSIBLE ...

#### PREFACE

- This book is designed to help you "plug" into the Computer Age by providing you with hands-on experience in creating your own low cost reusable electronic worksheet matrixes.
- This book is primarily for Radio Shack TRS-80 Color Computer users who by using the Spectaculator (electronic worksheet) Software Program at their own pace will be able to create and display, in simple English, problem-solving matrixes.
- This book is for those of you who know a great deal about what you want a microcomputer to do automatically for you, but know very little about programming or microcomputers.
- This book is for those of you, whether in business, school, government or at home, who want a tool (matrixing) to solve real world problems quickly and easily and want to be able to show results quickly, without programmers and without fuss.

Although this book is primarily for Radio Shack TRS-80 Color Computer users, creating and using the Spectaculator matrixes illustrated in this book will give you experience in using electronic worksheets, also known as electronic spreadsheets and Financial Planning Packages. There are many electronic worksheet programs currently available for microcomputers as well as big computers and minicomputers; and there is little doubt that use of microcomputers has significantly increased because of them.

However, you definitely need the Radio Shack TRS-80 Color Computer and the Spectaculator Software Program to learn electronic worksheet matrixing as explained in this book. Those of you who may be a little afraid of using computers or looking foolish or inadequate in an office environment can learn in your own home and at very little cost, since the Color Computer and the Spectaculator Software Program are modestly priced.

This book will give you the ability to use an electronic worksheet to create matrixes (also known as Templates and Models) for your own needs and specifications. Creating matrixes with the Spectaculator Software Program is 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 home computer 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 stepby-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 electronic worksheet matrixes after completing this book, and some of you may even want to save the matrixes you create on a tape recorder and create a library of matrixes common to varying tasks for others to use.

All of the matrixes in this book are simply presented and the step-by-step process leaves little to your imagination. Further, we are very much aware that a book of this kind requires that the matrixes work and are defect free. To that end, my wife, Marina, who has little 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.

We have offered a wide variety of sample matrixes, such as Electric Bill for home or business use, charts and graphs for school or business presentations and Zero Base Budgets for government, business and home use. We have even included a Three-Dimensional Bar Graph matrix if you really want to get fancy.

We hope this book will help you unleash your creative powers not only in the use of microcomputers but in the use of electronic worksheets where you can proceed to develop matrixes for applications we have not dreamed of.

HARRY ANBARLIAN

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## INTRODUCTION

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SPREADSHEETING WITH

THE SPECTACULATOR

ELECTRONIC WORKSHEET

## WHAT IS SPECTACULATOR ELECTRONIC WORKSHEET

### MATRIXING?

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

An electronic worksheet such as Spectaculator can be defined as a multi-purpose, problem-solving software package that utilizes the microcomputer's powerful memory in performing calculations.

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

# WHY THIS BOOK IS WRITTEN IN THREE SECTIONS

This book is written in three sections, Sections I, II and III. Section I is to

introduce you to Spectaculator (electronic worksheet) matrixing. Section II is written to provide you with the actual steps in creating matrixes by using the Spectaculator software program on the Radio Shack Color Computer. And Section III is devoted to how to create polished matrixes for reports and presentations.

#### HOW TO USE THIS BOOK

The most important chapters in this book contain exercises that will give you handson experience in creating Spectaculator electronic worksheet 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 matrixes can be used, limited only to your own creative imagination. If you follow the simple steps in the handson exercises, you will not only create useful 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 Spectaculator matrixes that will solve specific problems through a systematic step-by-step process.

Each exercise contains the following:

#### a. OBJECTIVE

The objective explains the purpose for creating the matrix. It simply states the problem to be solved. As you read the objective of each exercise, you want to list other similar objectives that occur to you, so that at the end of the exercise you may 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: