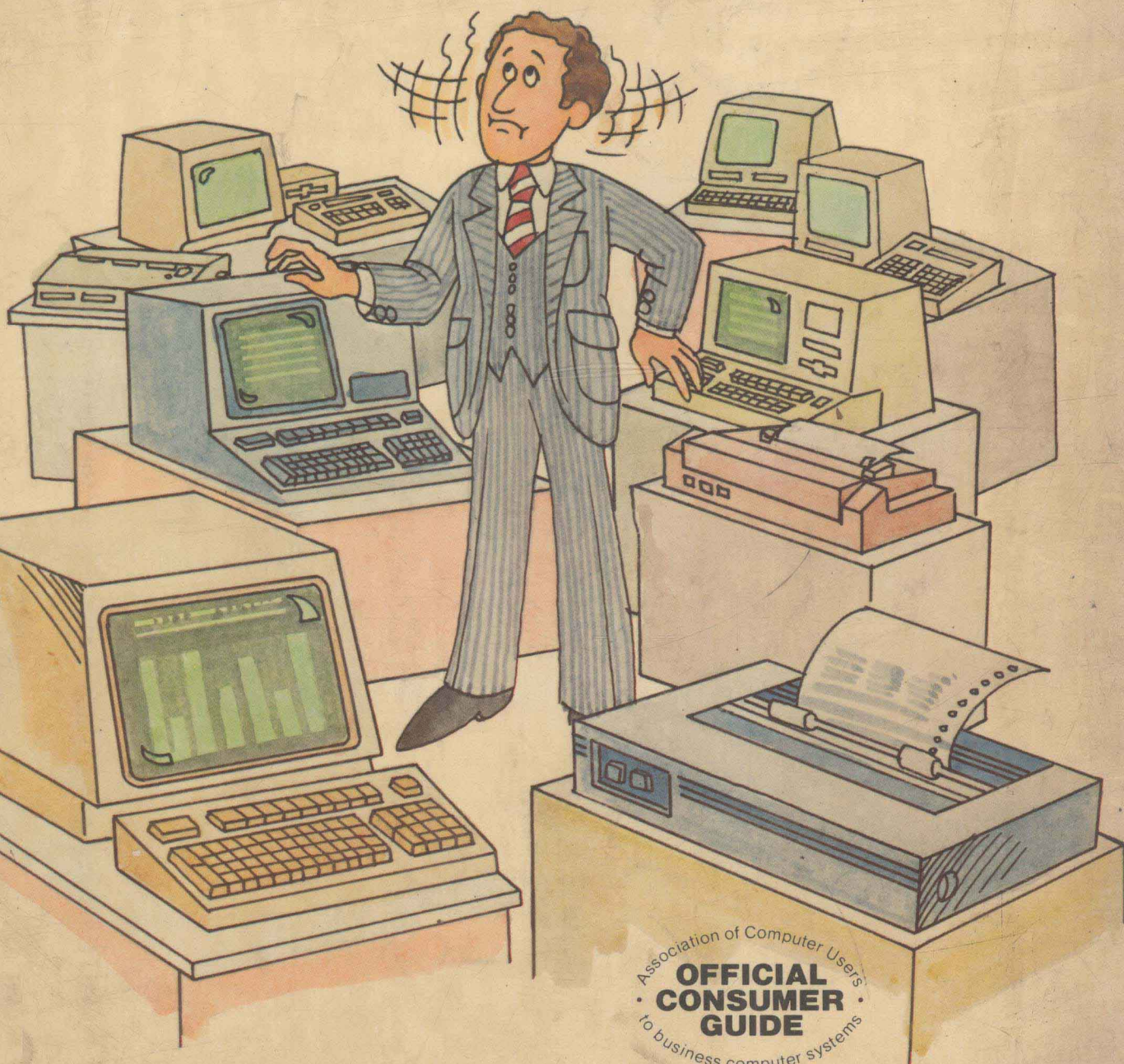


by Hillel Segal and Jesse Berst

How to select your small computer

...without frustration

The Association of Computer Users'
Computer Fitness Series
Volume 1



Association of Computer Users'
**OFFICIAL
CONSUMER
GUIDE**
to business computer systems

by Hillel Segal and Jesse Berst

How to select your small computer

...without frustration

Computer Fitness Series
Volume 1

Association of Computer Users'
OFFICIAL
CONSUMER GUIDE
to business computer systems

Prentice-Hall, Inc., Englewood Cliffs, New Jersey

Copyright ©1983, ACU Research and Education Division, Inc. All rights reserved. No part of this publication may be reproduced without prior written permission.

Printed in the United States of America

10 9 8 7 6 5 4 3 2 1

About ACU . . .

The Association of Computer Users, Inc., is a not-for-profit association with several thousand members in the United States, Canada, and many foreign countries. Further information about membership may be obtained by contacting ACU, P.O. Box 9003, 4800 Riverbend Rd., Boulder, CO 80301, (303) 443-3600.

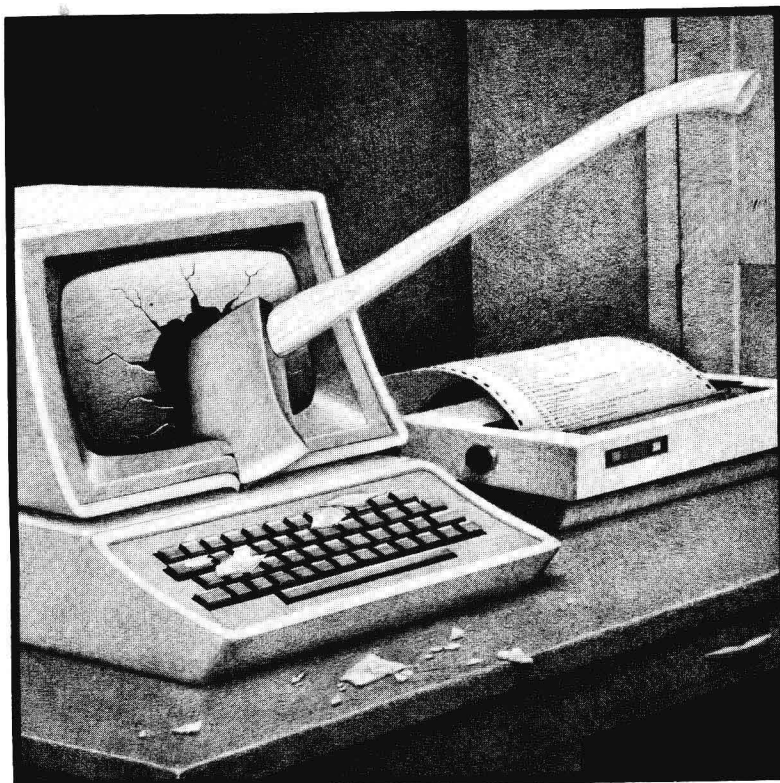
Library of Congress Catalog Card Number: 82-62018

ISBN 0-13-431338-0

ISBN 0-13-431320-8{PBK}

Prentice-Hall International, Inc., *London*
Prentice-Hall of Australia Pty. Limited, *Sydney*
Editora Prentice-Hall do Brasil, Ltda., *Rio de Janeiro*
Prentice-Hall Canada, Inc., *Toronto*
Prentice-Hall of India Private Limited, *New Delhi*
Prentice-Hall of Japan, Inc., *Tokyo*
Prentice-Hall of Southeast Asia Pte. Ltd., *Singapore*
Whitehall Books Limited, *Wellington, New Zealand*

Introduction



*Buy The Easy Way . . .
Without Frustration*

Frustration. Aggravation. Confusion.

These are the words most first-time buyers use to describe the process of selecting a small computer. Unhappily, frustration and confusion often lead to expensive buying mistakes. Whether a new computer will generate **profits** or **problems** depends on how carefully it is selected—as thousands of buyers have learned the hard way.

If you prefer to learn the **easy** way, this consumer guide is designed to help. It

will take you step-by-step through the buying process, answering such questions as:

- Should I buy now or wait?
- How much computer do I need?
- How do I find the right software?
- Where do I locate the best vendor?
- What hardware features do I need?
- What guarantees should I expect from the supplier?

No matter what your question, chances are that one of our members has already found the answer. We are the Association of Computer Users (ACU), the nation's largest computer consumer organization. ACU's motto is: It's **smart** to learn from your mistakes, but it's **even smarter** to learn from the mistakes of others. That's why we created this comprehensive guide, which includes buying tips gleaned from thousands of users who have been through it all before.

We designed this volume as a workbook for small computer purchasers. In contrast to other books on the market, our emphasis is distinctly from the **consumer** point of view. For example, here are some of the tools we have assembled to help you buy your small computer without frustration:

- Simple, fill-in-the-blank worksheets for every phase of the purchase. At the end of the book, you will combine the worksheets into a summary sheet that will point you to the computer system that's best for you.
- Warnings of the sales ploys some vendors use against unwary buyers.
- Descriptions of the most common buying pitfalls so you won't repeat them.
- Glossaries of the most important computer terms you will need to know at each stage in the buying process.

What do we mean when we say **small** computers? For this guide, we have defined a small computer as a system where the hardware—the actual equipment—costs less than \$20,000. In many cases, much less.

One word of explanation before we begin. Throughout this book, we urge you to be cautious and conservative. We don't want you to think, however, that we believe automation is a bad idea. On the contrary, we feel that most businesses could benefit from computerization. But to get the benefits, you must get the right one, at the right time, at the right price.

That's where this consumer guide comes in. By the time you're finished, you should have the answers you're looking for—without frustration.

Hillel Segal
Jesse Berst

ACKNOWLEDGEMENTS

Our thanks to the many ACU members and staff whose combined experiences, support and valuable suggestions have made this publication possible.

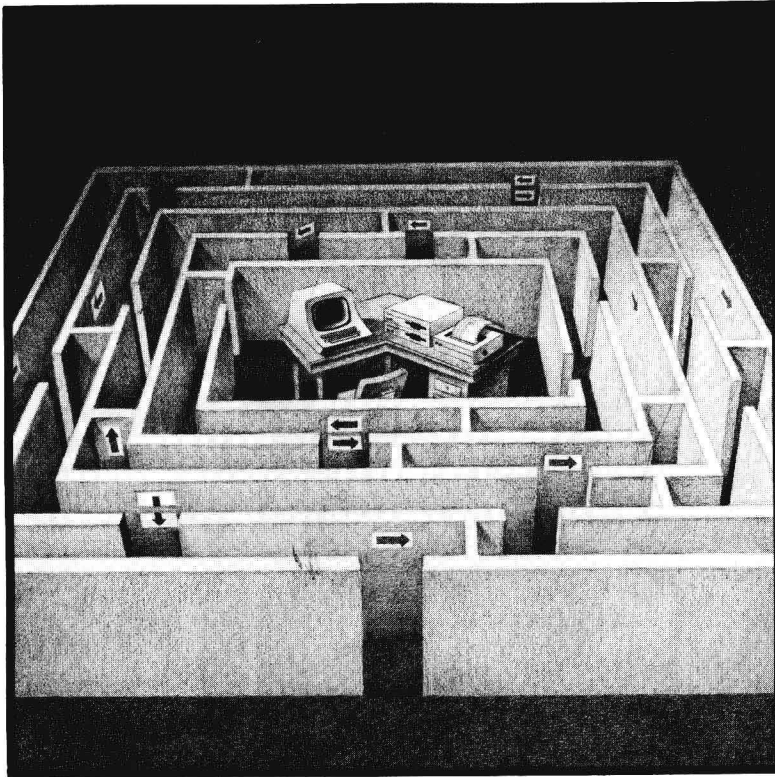
Special thanks to Glen Herbert for cover design, Robert Tinnay for chapter illustrations, Becky Petersen for graphic design and layout, Paula Erez for typesetting, and all of the following individuals for their editorial assistance: Larry Leslie, Nina Segal, Martin Neville, Winston Brooke, Richard Faherty, Chester Frankfeldt, Jack C. Harris, Ed Heath, A.M. Kneitel, Alan H. Nierenberg, Bob Podkaminer, Philip N. Sussman, Paul Thoppli, and Howard Tureff.

CONTENTS

Introduction	iii
1. The Right Way To Buy A Computer	1
Section I: Taking The First Steps	9
2. Do You Really Need A Computer?	11
3. Should You Use An Outside Service Instead?	33
4. How Much Computer Do You Need?	47
5. Computer Consultants	61
Section II: Finding The Right Software	75
6. Which Is Best: Canned, Custom Or Combination?	77
7. Evaluating Software	89
8. Software Shopping Lists	105
Section III: Finding The Right Vendor	131
9. Make Computer Vendors Pass This Test	133
10. Decent Proposals	147
11. Write A Better Contract	159
Section IV: Finding The Right Hardware	169
12. Evaluating Computer Hardware	171
13. Making The Final Decision	181
Afterword	197
Index	199

WORKSHEETS

Worksheet #1:	Cost-Benefit Analysis	29
Worksheet #2:	Measuring Your Needs/Records	56
Worksheet #3:	Measuring Your Needs/Volume	58
Worksheet #4:	Evaluating Software	102
Worksheet #5:	Accounts Receivable	112
Worksheet #6:	Accounts Payable	115
Worksheet #7:	General Ledger	117
Worksheet #8:	Inventory Control	120
Worksheet #9:	Payroll	124
Worksheet #10:	Word Processing	126
Worksheet #11:	Vendor Questionnaire	142
Worksheet #12:	Request For Proposal	154
Worksheet #13:	Contract Provisions	164
Worksheet #14:	Hardware Standards	176
Worksheet #15:	Software Ratings	190
Worksheet #16:	Hardware Ratings	192
Worksheet #17:	Service/Support Ratings	193
Worksheet #18:	Summary Sheet	194



Chapter One

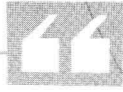
The Right Way To Buy A Computer

How To Find Your Way Through The Computer Maze

You **can** buy a computer without frustration.

Despite the confusion you are probably feeling if you've been shopping around, and despite the horror stories you've heard, thousands of people have successfully negotiated the computer marketplace. They have found the right computers at the right prices and put them to work improving profits for their firms.

As an independent consumer organization, we set out to determine the characteristics that separate the successful computer purchases from the bad ones. After significant research, we discovered that most success stories have something in common: the buyers took a few relatively simple steps **before** the purchase.



Out of ignorance, you can easily pay **ten times** as much as you should to computerize your business.



There is, in other words, a right way to buy a computer. Unfortunately, many first-time shoppers go about it the wrong way. Typically, they don't determine if they should buy now or wait; or how much computer they need; or what features they should shop for. Nor do they talk to other users. Instead, they call in a sales rep or two right away. The sales representative hands them some slick brochures and runs through a polished presentation, typically laying heavy emphasis on a demonstration of the hardware's bells and whistles. Most unknowledgable buyers, suitably impressed, decide to buy. Our studies have revealed that most first-time buyers give only two or three systems serious consideration before they buy.

Buying a computer this way can lead to big problems. Although automation usually changes a business for the better, some begin to suffer from the day they acquire the wrong system. Even if a poor buying decision isn't catastrophic, its potential for financial mischief is enormous. Out of ignorance, for instance, you can easily pay **ten times** as much as you should to computerize your business.

We urge you, therefore, to buy your small computer the right way. The four-part process outlined in this book will put you in the driver's seat when you shop.

- SECTION I: Taking The First Steps.** Decide if you need a computer, how much you need and if you should hire a consultant.
- SECTION II: Finding The Right Software.** Decide what you need done and find the programs to do it.
- SECTION III: Finding The Right Vendor.** Locate reputable vendors who sell and service the type of system you want.
- SECTION IV: Finding The Right Hardware.** Select the best possible hardware to run the software.

Computer systems often come as one big package, but we have broken them down into their components for separate consideration. We urge you to “ease into” automation with a cautious, phased approach that allows you to back out at any stage.



CONSUMER ALERT

Pitfall #1: Buying Backwards

An independent computer consultant recently received a letter from a doctor. The physician had just purchased an IBM computer system. His question: “How can I apply it to my practice?”

This doctor bought his computer system backwards. Not only did he put the cart before the horse . . . he didn't even know if he needed a cart in the first place! We wish we could say this a rare occurrence, but far too many buyers load up a room with equipment before they know what they are going to do with it. Buying a computer

backwards is like buying a car before you know how to drive and before you've decided where you're headed. You may shell out a lot of money to go nowhere.

The smart strategy: Experienced computer users say there is a definite order in which you should buy your system. Begin with the important first steps of deciding if you should computerize and how much computer you need. Next, find the right software and the right vendor. Then, and only then, should you start looking for hardware to run the software you want.

The Moral: If you buy backwards, you'll end up with an expensive solution looking for a problem.

How To Use This Guide

We suggest that you begin by quickly reviewing this entire guide to get the big picture. We have included a small dose of computer jargon at the end of each chapter, so you will know enough to understand most sales representatives. In addition, we've prepared a series of "Tipoffs" to alert you to strategies some vendors use against unwary buyers.

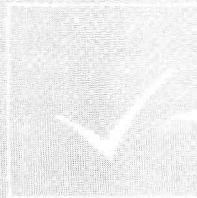
In addition, in each chapter you'll find a series of "Consumer Alerts" to help you avoid common mistakes, and real-life case histories to show how theory translates into practice.

When you've finished your first review, we suggest you then start again from the

beginning to read more carefully and fill in the worksheets. As you work through the chapters, we suggest that you create a special file to store the worksheets and the other sales information you'll collect.

Toward the end of the book, you will discover that the worksheets fit together to become a summary. This important document you'll create is called a **request for proposal (RFP)**, a summary of your needs you can give to vendors to allow them to bid for your business.

Preparing this consumer guide was difficult—it took us months of research and writing—but we won't try to kid you. Our job was easier than yours will be. We had to dig up the best possible advice. You have to follow it, and that involves lots of elbow grease. Our method is not the fastest way to computerize, nor the easiest. But we do believe our method is the wisest and most prudent way to select a small computer. Any major purchase involves risk, but this step-by-step system should steer you clear of many disasters that have tripped up previous buyers—and save you thousands of dollars as well.



TIPOFFS



Promises, Promises

The Tipoff: During a presentation, the sales representative makes all sorts of verbal promises—delivery by a certain date; program modifications at no extra charge; that the hardware has the power to handle all your needs; that you can upgrade to a bigger machine without any software changes; in fact, he or she

promises you almost anything you want—until you ask for it in writing.

The Ripoff: Several recent court cases have awarded damages to computer buyers because the vendor's sales representatives deliberately lied about the capabilities. Although there aren't too many companies who will attempt actual fraud, you will run into far too many sales representatives who "bend" the truth. Unfortunately, when you read through the purchase contract, you'll discover that their glib promises are notably absent.

The Solution: Rely on written promises only—demand a sales agreement that lists all of the vendor's responsibilities.

From Computerese To Computer-ease In Simple Installments

You can't hold your own with a fast-talking computer sales representative unless you can speak a little computerese. Without a basic grounding in technical jargon, you're likely to be snowed under. By placing helpful definitions in each chapter, we're going to review the words you need to know in short installments. We hope that you'll learn as you go along.

Methods Of Acquiring Computer Power

In the most general sense, you have two ways to get computer power for your business: an **outside service** or an **in-house computer**.

There are two basic types of outside services (also called remote computing services). **Service bureaus** have their own large computers. You mail or deliver source documents—checks, sales slips, journal entries—to the bureau on a regular basis. They put the information into their machine, process it, and return the results to you. Some businesses use a service bureau only for one function—payroll, for instance.

Time-sharing is the second type of outside service. It offers you computer power much as an electrical utility offers electrical power—you pay for what you use. A terminal in your place of business is connected by phone lines to a large central computer. Using the terminal, your employees enter information into the central computer, which processes it and returns the results to your video screen or to a printer in your office (some services print the reports in their facility and mail them to you). Every time you dial the main computer, you are charged a fee.

In the last few years, many firms that started with an outside service have switched to in-house computer systems. Sometimes they buy the hardware and software separately. Other times they opt for a **turnkey** system. Supposedly, turnkey systems are so complete that all you need to do is plug them in and “turn the key.” Although it's not a bad idea to buy a complete package—hardware, software, service and training—from one vendor, you'll be lucky, indeed, if you find the perfect system for your unique business just sitting in a showroom. Usually, it isn't that simple, as you'll see in our section on software.

2
**Do You
Really
Need A
Computer?**

3
**Should You
Use An
Outside
Service
Instead?**

4
**How Much
Computer
Do You
Need?**

5
**Computer
Consultants**

SECTION I:

Taking The First Steps

Most first-time computer buyers fail to take the necessary preliminary steps before they start shopping. We'll be honest—these steps will take some effort. But they are worth your time and trouble, because they lay the foundation for a successful computer system.

In Chapter 2 you will make a preliminary decision about computerization. You aren't bound by this decision; you can back out at any stage along the way. But this chapter should let you know if it's worth your while to pursue computerization.

In Chapter 3 you will get an overview of the computer services industry. We've set forth the pros and cons of outside services so you can decide whether you should pick this alternative over an in-house machine.

Chapter 4 is intended for those who have decided to go with in-house equipment. Over- and under-buying are serious problems. The worksheet in this chapter will help you figure out how much computer is enough. The worksheet will eventually become part of your "request for proposal" to tell vendors exactly what you want.

Chapter 5 will explain how consultants work, what they do, when to use them, where to find them and how to get the most for your money.