

InfoWorld's ESSENTIAL GUIDE

— TO —

apple[®]

*Thom Hogan & The Editors of InfoWorld
show you how to get the most out of Hardware,
Software & Peripherals.*

InfoWorld's **ESSENTIAL GUIDE** TO THE **APPLE**

Thom Hogan *and*
the Editors of InfoWorld



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INFOWORLD'S ESSENTIAL GUIDE TO THE APPLE

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Preface

Welcome to *InfoWorld's Essential Guide to the Apple*. This book will help you get the most out of your Apple II-family computer. Whether you already own an Apple or are trying to decide which computer to buy, we think you'll find this guide essential.

As a buying guide, it will help you get the most for your money. For example, it uncovers some of the hidden costs that you might overlook. After reading this book, you should have a good framework on which to base buying decisions.

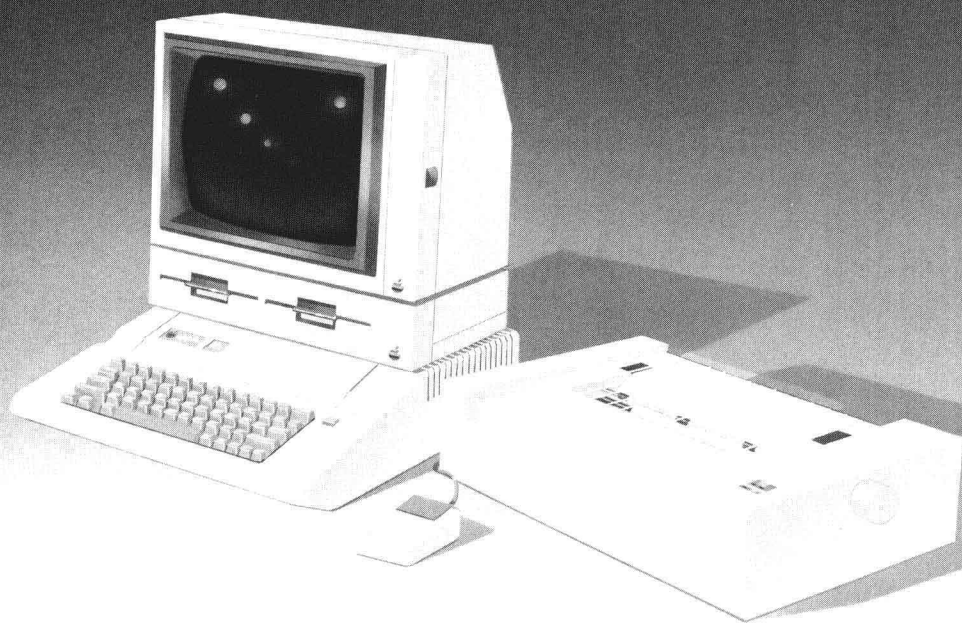
If you already own an Apple, you'll want to keep this book next to it as a resource of additional information.

To make this guide easy to use, we've divided it into two major parts: an overview of the Apple and reviews — a representative sampling of hardware and software products. Part 1, the overview, is divided into sections, with an explanation of what's in each section. In Part 2, the reviews — which follow the well-known, well-respected *InfoWorld* format — are arranged by applications, such as Words and Numbers.

With this arrangement, you can read the whole book straight through or skip around to various areas that especially interest you.

In the back of the book, you'll find a glossary and several useful appendices.

Prepared by the editors of *InfoWorld*, noted author Thom Hogan and the *InfoWorld* product-evaluation team, this guide to the Apple II family of computers will be a valuable addition to every Apple user's bookshelf.



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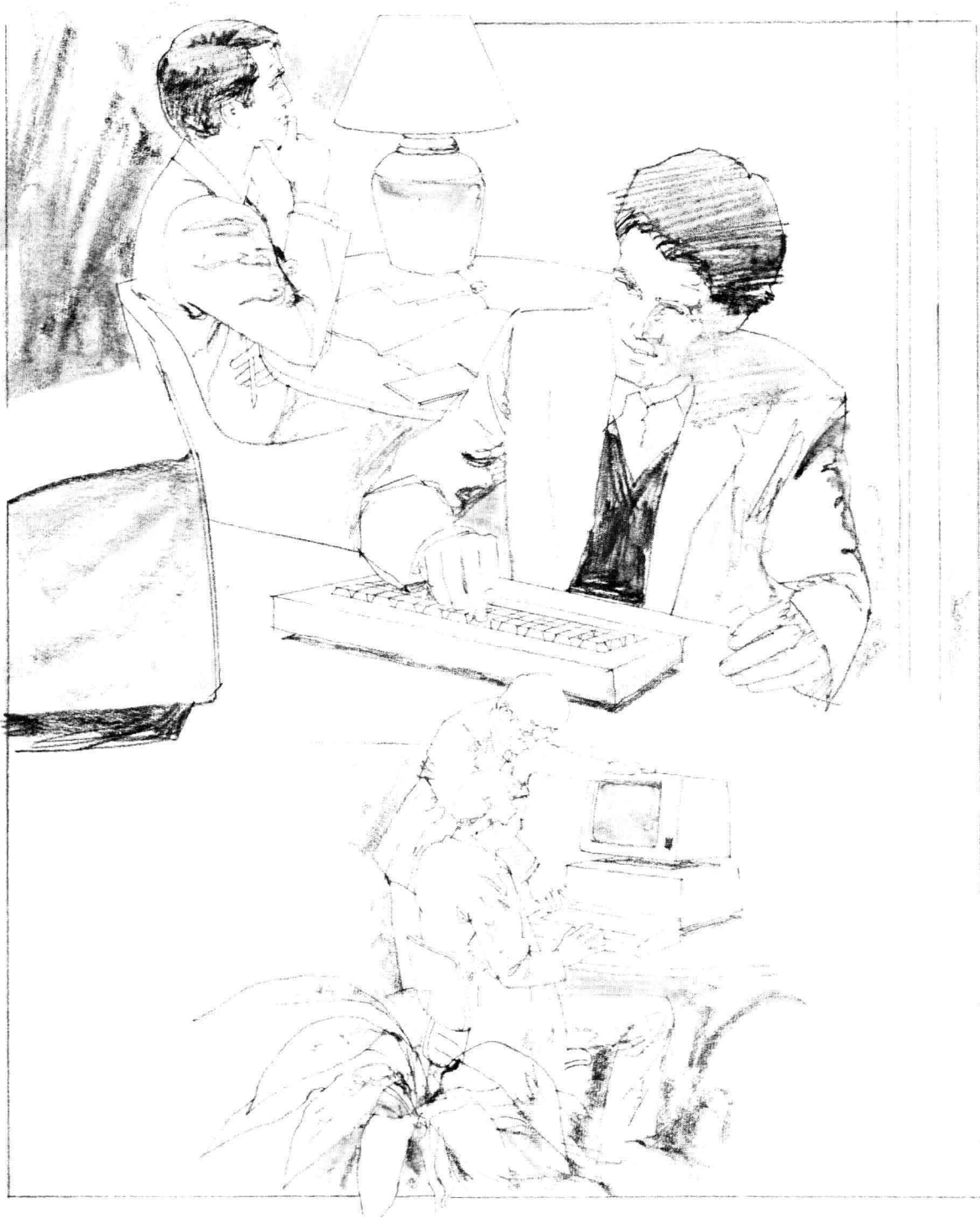
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Part 1

OVERVIEW



Section One

Getting Started

What in the world is an Apple?

It seems a curious name for a sophisticated computer: Apple. Yet this unintimidating name is appropriate — the Apple is an unintimidating computer.

But just what is an Apple? And what can a computer such as the Apple do for you? How do you buy an Apple, and what do you get for your money?

In this section, we'll explore these questions. We'll also provide some background on the people and events behind the creation of Apple Computer, and we'll provide buying information (including a list of all those little things you may not have thought about).

The History of Apple Computer
How to Shop for an Apple

THE HISTORY OF APPLE COMPUTER

Apple Computer Corporation began with the tinkering efforts of two young men, Steve Jobs and Stephen Wozniak. Jobs was the organizer, “Woz” (as Wozniak likes to be called) was the designer. Woz was in his early twenties and Jobs hadn’t quite reached his twentieth birthday when Apple Computer came into being.

The two Steves dubbed their first effort the “Apple I.” This 1976 product consisted of only an electronics board; users had to supply everything else, from a case to a power supply to a keyboard for entering information. The mid-70s were the days of computer hobbyists, and the hobbyists didn’t much mind having to put together pieces they’d garnered from several companies to form a single computer.

Apple Computer didn’t produce very many Apple Is, however, mainly because Woz was already finishing up the design of the Apple II by the time the Apple I was available.

The Apple II was introduced in early 1977. For its time, this machine had phenomenal capabilities: it allowed display of information in color and had more memory than most personal computers then available, and it featured what seemed to be infinite expansion possibilities. The Apple II came packaged in a plastic case that was no larger than a typewriter case. Almost immediately, the sales of this machine became as phenomenal as its features.

Jobs and Wozniak didn’t stop there, however. After the Apple II came the Apple II Plus, an improved version of the original machine. Also introduced were disk drives (such as the Disk II) and several expansion boards to fit inside

the Apple. With the introduction of VisiCalc and other ground-breaking software, the Apple II's popularity gained momentum.

Next in Apple's lineup was the Apple III, introduced in 1979 amidst much fanfare. The III was essentially a jazzed-up version of the II, with faster performance, more memory, a better keyboard and several features that the Apple II didn't have. The III was Apple Computer's first attempt to create a computer solely for business use, as opposed to the home- and personal-use niches of the Apple II.

In 1983, Apple introduced the IIe, another improvement on the Apple II, and the Lisa, a revolutionary business computer using an input device called the mouse. The Macintosh (see Appendix), a portable computer incorporating many of the same features and software ideas as the Lisa, and the Lisa II, a more advanced, low cost model of the Lisa, arrived on the market in early 1984.

A simpler, portable version of the Apple IIe is known as the Apple IIc. The IIc does not have a built-in monitor, but a monitor is available as an option. This 8-pound portable computer uses the 65C02 processor and is slightly larger than the keyboard portion of the IIe. The IIc has considerably less circuitry than the IIe, but it is largely compatible with the earlier machine. Although the new Apple includes 128K of RAM, it features no expansion slots. Included with the IIc is a serial port for a modem, a port for a printer and a mouse port.

Expected from Apple is a high-performance version of the IIe, with the ability to address more memory and run the same software much faster than the IIe. From its modest beginnings in 1976, Apple Computer has become one of the fastest growing companies ever. In its first five years, Apple went from start-up to a Fortune 500 company (a first), went from no revenues to almost \$1 billion (a first), and went from one of many small companies providing personal computers to become one of two dominant companies in personal computers (the other: IBM).

The significance of the Apple II product line

Compared to any other small computers currently available, the Apple II has one overwhelming advantage: software developed for the original Apple II will work on the Apple II Plus and the Apple IIe. No other small-computer manufacturer can claim this for its machines.

Indeed, Apple has shown remarkable fidelity to its original design. Simply put, six years' worth of Apple IIs have created an enormous market for Apple II software and accessories known as peripherals. At the time of this writing, Apple has sold more than 1.5 million of the various versions of the Apple II.

We cannot overemphasize the importance of this accomplishment. (Those 1.5 million Apple IIs mean that virtually every type of software or accessory already exists for the Apple II.) In addition, the Apple accessory market has had more than five years to develop; complex or sophisticated accessories that are still in the planning stages for other computers have been available for the Apple II for some time.

Some differences do exist between the various Apple II computers. Let's take a closer look at those differences.

	APPLE II	APPLE II Plus	APPLE IIe
<i>Available</i>	1977-1979	1978-1983	1983-present
<i>Number sold</i>	100,000+	800,000+	500,000+
<i>Memory</i>	4K to 16K+	16K to 48K 64K option	64K to 128K
<i>Features (that differ between models)</i>	uppercase only keyboard	uppercase only keyboard	upper/lowercase keyboard
	40-column display	40-column display 80-column option	40-column display 80-column option
	cassette tape	cassette tape or floppy-disk drive	cassette tape or floppy/hard-disk drive
	Integer BASIC in ROM, Applesoft on tape	Applesoft BASIC in ROM, Integer on diskette	Applesoft BASIC in ROM, Integer on diskette
		DOS 3.2, 3.3	DOS 3.3, ProDos

As you can see, there aren't many major differences between the various Apple II product histories. Maximum available memory increased, the keyboard and displays got better and the way the computer's instructions and information were stored evolved from cassette tape to floppy- and hard-disk drives. On the software side, the original (and minimal) Integer BASIC was stored at first within the machine at all times, then was on diskette, to be retrieved when needed. In addition, the disk-operating system evolved, acquiring more features and improvements in performance as it grew.

Here's a surprise! You can modify (upgrade) the old-time basic Apple II to make it virtually the same machine as the current IIe — at least in function and feature, if not in appearance. As you'll discover when we discuss the various hardware accessories you can purchase for the Apple II, you can get a new keyboard, more memory, a larger display, and floppy-disk drives that work with any of the Apple II clan. What this means is that, for the most part, any Apple II can do anything that any of its relatives can.

At an exhibition for dealers in late 1983, Apple showed numerous new options for the Apple II series:

- ☐ AppleMouse II
- ☐ Apple Imagewriter printer
- ☐ AppleWorks software
- ☐ Apple/Rana MS-DOS add-on

Given such continued support, Apple owners can expect their computers to be functional for many years to come, even though the II and the II Plus are no longer manufactured. Indeed, Apple is currently rumored to be working on several enhancements to the current IIe product, including the ability to run MS-DOS, new optional disk drives and much additional software.

The Apple imitators

The enormous popularity of the Apple computer has spawned several Apple imitations. These imitators generally fall into two classes.

- ☐ Attempts by Asian companies to clone the Apple II Plus, even down to the case
- ☐ Apple II Plus software-compatible machines manufactured by both American and European firms

Note that almost all of the Apple imitators attempt to emulate the Apple II Plus, not the current Apple IIe. Because the IIe offers a few price advantages over the II Plus for those persons who are interested in adding the 80-column or additional memory options, the Apple imitations might not be as cost-effective as they at first seem.

The Asian clones are easy to recognize. Some of them are legal, some illegal (they duplicate copyrighted portions of the Apple II Plus design). Most have names that are supposed to evoke the “Apple” image: Pinecom, Orange and even Lemon. In most cases, these clones look like an Apple II Plus, having a case of the same size and shape. Often, many of the internal parts also look the same. The Asian firms that create these clones don’t have to do any engineering or new-product development; they simply duplicate an existing product using their low-cost labor and parts advantages (most authentic Apples sold in America are assembled at a plant in Texas). Most of these Asian clones are brought into the United States by price-conscious distributors, who sell these machines through mail channels.

Apple went to the federal government seeking a ban on the import of machines that violate any of Apple’s copyrights or patents. The government concurred, and it now confiscates the illegal clones (but not the legal ones). If you’re overseas and are tempted by the low prices of Apple look-alikes, don’t buy until you find out whether the machine is a legal or an illegal clone. U.S. Customs will confiscate any illegal clone brought into the country, even if an individual brings it in.