A Short History of the Apple II

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The Steves

c. 1976
1976: Steves Jobs and Wozniak start with $1300
1977: Annual sales reach $1M
1978: Disk II released
1979: VisiCalc released. 35K Apple IIs this year
1980: $100M IPO sells in minutes. 78K this year
1982: Annual sales of $1B. 650K cumulative
1984: Macintosh released. 2M cumulative
1993: Apple II discontinued in October. Over 5M
July 1976: The Apple I

Apple Introduces the First Low Cost Microcomputer System with a Video Terminal and 8K Bytes of RAM on a Single PC Card.

The Apple Computer. A truly complete microcomputer system on a single PC board. Based on the MOS Technology 6502 microprocessor, the Apple also has a built-in video terminal and sockets for 8K bytes of on-board RAM memory. With the addition of a keyboard and video monitor, you’ll have an extremely powerful computer system that can be used for anything from developing programs to playing games or running BASIC.

Combining all of these components into one single board results in a large reduction in chip count, which means more reliability and lower cost. Since the Apple comes fully assembled, tested, and burned-in and has a complete power supply on-board, initial set-up is essentially “hassle free” and you can be up and running within minutes. At $696.66 (including 4K bytes RAM) it opens many new possibilities for users and systems manufacturers.

You Don’t Need an Expensive Teletype.

Using the built-in video terminal and keyboard interface, you avoid all the expense, noise and maintenance associated with a teletype. And the Apple video terminal is six times faster than a teletype, which means more throughput and less waiting. The Apple connects directly to a video monitor (or home TV with an inexpensive RF modulator) and displays 960 easy-to-read characters in 24 rows of 40 characters per line with automatic scrolling. The video display section contains its own 1K bytes of memory, so all the RAM memory is available for user programs. And the Keyboard Interface lets you use almost any ASCII-encoded keyboard.

The Apple Computer makes it possible for many people with limited budgets to step up to a video terminal as an I/O device for their computer.

No More Switches, No More Lights.

Compared to switches and LED’s, a video terminal can display vast amounts of information simultaneously. The Apple video terminal can display the contents of 192 memory locations at once on the screen. And the firmware in PROMS enables you to enter, display and debug programs (all in hex) from the keyboard, rendering a front panel unnecessary. The firmware also allows your programs to print characters on the display, and since you’ll be looking at letters and numbers instead of just LEDs, the door is open to all kinds of alphanumeric software (i.e., Games and BASIC).

8K Bytes RAM in 16 Chips!

The Apple Computer uses the new 16-pin 4K dynamic memory chips. They are faster and take up less of the available space and power of even the low power 2102’s (the memory chip that everyone else uses). That means 8K bytes in sixteen chips. It also means no more 28 amp power supplies.

The system is fully expandable to 65K via an edge connector which carries both the address and data busses, power supplies and all timing signals. All dynamic memory refreshing for both on and off-board memory is done automatically. Also, the Apple Computer can be upgraded to use the 16K chips when they become available. That’s 32K bytes on-board RAM in 16 IC’s — the equivalent of 256 2102’s!
April 1977: The Apple II

Introducing Apple II.
April 1977: The Apple II

The home computer that's ready to work, play and grow with you.

Clear the kitchen table. Bring in the color TV. Plug in your new Apple II and connect any standard cassette recorder/player. Now you’re ready for an evening of discovery in the new world of personal computers.

Only Apple makes it that easy. It's a complete, ready-to-use computer—not a kit. At $899, it includes features you won't find on other personal computers costing twice as much.

But the best feature of Apple II is that it lets you and your family increase your familiarity with the computer itself. The more you experience with it, the more you discover about its potential.

Start by playing PONG. Then invent your own games using the input keyboard, game paddles and built-in speaker. As you experiment you'll acquire new programming skills which will open up new ways to use your Apple II.

You'll learn to paint dazzling color displays using the unique color graphics combined with Apple BASIC, and write programs to create beautiful kaleidoscopic designs.

As you master Apple BASIC, you'll be able to organize, index and store data on household finances, income tax, recipes, and record collections. You can learn to chart your heartbeats, balance your checking account, even control your home environment. Apple II will go as far as your imagination can take it.

Best of all, Apple II is designed to grow with you. As your skill and experience with computing increase, you may want to add new Apple peripherals. For example, a refined, more sophisticated BASIC language is being developed for advanced scientific and mathematical applications.

In addition to the built-in audio, video and game interfaces, there's room for eight plug-in options such as a prototyping board for experimenting with interfaces to other equipment, a serial board for connecting teletypes, printers and other terminals, a parallel interface for communicating with a printer or another computer, an EPROM board for storing programs permanently, and a modem board communications interface. A floppy disk interface with software and complete operating systems will be available at the end of 1977. And there are many more options to come, because Apple II was designed from the beginning to accommodate increased power and capability as your requirements change.

If you'd like to see for yourself how easy it is to use and enjoy Apple II, visit your local dealer for a demonstration and a copy of our detailed brochure. Or write Apple Computer Inc., 20860 Stevens Creek Blvd., Cupertino, California 95014.

Apple II is a completely self-contained computer system with Apple BASIC in ROM, color graphics, ASCII keyboard, right-weight, efficient switching power supply and molded case. It is supplied with BASIC in ROM, up to 48K bytes of RAM, and with cassette tape, video and game I/O interfaces built in.

SPECIFICATIONS

- Microprocessors 6502 (1 MHz)
- Video Display: Memory mapped, 5 modes—all Software selectable
- Text—40 characters line, 24 lines upper case
- Color graphics—40x128, 15 colors
- High-resolution graphics—256x128, black, white, violet, green (1K RAM minimum required)
- Both graphics modes can be selected to include 4 lines of text at the bottom of the display area
- Completely transparent memory access. All color generation done digitally.
- Memory: up to 48K bytes on-board RAM (4K supplied), up to 128K ROM (8K supplied)
- Software
  - Fast extended Integer BASIC in ROM with color graphics commands
  - Extensive monitor in ROM
  - I/O
    - 1500 baud cassette interface
    - 8-slot motherboard
    - Apple game I/O connector
    - ASCII keyboard port
    - Speaker
    - Composite video output

Apple II is also available in board only form for the do-it-yourself hobbyist. Has all of the features of the Apple II system, but does not include case, keyboard, power supply or game paddles. $398.

PONG is a trademark of Atari Inc.

*Apple II plugs into any standard TV using an inexpensive modulator (not supplied).
1979: Visicalc: The First Spreadsheet

MOVING THE CURSOR

Moves the cursor down.

space bar

Switches the window between horizontal.

If two windows are open, from one window.

Go To command, enters the coordinates of the cursor to go to.

THE ESC KEY

The ESC key is used to recover from mistakes. It usually erases the last thing that you entered. If you enter it enough times, it will abort whatever you are doing and return VisiCalc to a blank prompt line.

SETTING A LABEL ENTRY

Label entries start with a letter (A-Z). Do not use a letter ("`). Terminate entering a label by pressing the ←, →, or RETURN. Correct errors during entry. If you hit RETURN when a label prompt line will say LABEL while a label is being entered, or while RETURN is being pressed, it will be aborted.

A Visible Calculator

For the

APPLE II
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<td>ROM</td>
<td>8–12K</td>
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<tr>
<td>Display</td>
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