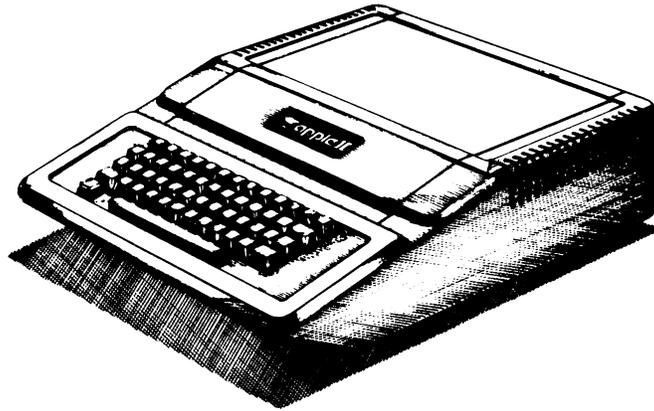




Apple II Family Historical Documents



Apple II GS Historical Documents

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www.comp.nus.edu.sg/~ongtw/pics/appleii/appleiigs-advert.gif

www.comp.nus.edu.sg/~ongtw

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General Apple II Info:

The Apple II computer has a special place in the history of Apple and personal computing. Unveiled at the first West Coast Computer Faire in 1977, the Apple II launched not only a company, but a revolution in computing: one that would make a new world of technology accessible to all kinds of people. Adults, children, teachers, artists, entrepreneurs, disabled, and many others have all been touched by the vision that led to the Apple II.

Contrary to popular belief, it was Apple Computer and not IBM that brought the first affordable personal computer to the masses. In March 1976, Steve Wozniak (then aged 26) finished work on a prototype for a preassembled computer circuit board. The prototype took 6 months to design and 40 hours to build. It was named the Apple I, which showed its face at the Homebrew Computer Club in Palo Alto, California. Apple Computer Company was founded on April Fool's Day.

In Jan 1977, Apple Computer was incorporated by Steve Wozniak, Steve Jobs and Mike Markkula. Apple moved from Job's parent's garage to a building in Cupertino, California. The new Apple II, unveiled in Apr 1977 at the first West Coast Computer Faire, was the first personal computer to generate colour graphics, and included a keyboard, power supply and attractive case.

Over the years, Apple released the following Apple II machines:

1979	1983	1984	1985	1986	1987	1988	1989
Jun	Jan	Apr	Mar	Sep	Jan	Sep	Aug
Apple II Plus	Apple IIe	Apple IIc	Apple IIe Enhanced	Apple IIGS ROM 1	Apple IIe Platinum	Apple IIc Plus	Apple IIGS ROM 3

Apple II GS ad info:

Classic advertisement of the Apple IIGS, taken from the Nibble magazine (Sept 1989 issue). The scanned image is 3000 by 1100 pixels. The original image occupies almost 10 megabytes; a gif version has been scaled down to 1.8 megabytes (with corresponding reduction in quality). The scaled down image has been re-touched up using Photoshop, with some modifications being made to the original image.

Apple II GS ad (section 1):

TOP ROW: *PaintWorks Plus* from Activision—Color Graphics *Instant Music* from Electronic Arts—Music Composition *Draw Plus* from Activision—Color Graphics

MIDDLE ROW: *Music Construction Set* from Electronic Arts—Music Composition *Bard's Tale* from Electronic Arts—Entertainment

BOTTOM ROW: *Notes & Files* from DataPak—Data Base *Print Shop* from Broderbund—Home Publishing *Writer's Choice Elite* from Activision—Word Processing

Apple II GS ad (section 2):

The Apple II GS Personal Computer
It's more fun to compute!

TopDraw from StyleWare—
Color Graphics

Softwood GS File from
Softwood—Data Base

Information Laboratory: Life
Science from Addison-Wesley—
Education

System

GraphicWriter from DataPak—
Word Processing and Graphics

First Shapes from First Byte—
Education

Reader Rabbit from The Learning
Company—Education

Apple II GS ad (section 3):



Apple II GS general info:

The Apple IIGS (15 Sept 1986 - 13 Dec 1993 RIP)

The last and best of its kind, the Apple IIGS was the most powerful and most colorful Apple II computer ever made. Combining the best of all the previous Apple II computers (easy addition of peripherals and versatile system customization), the Apple IIGS provides an easy-to-use user interface, high-resolution colour graphics and 15-voice sound capabilities.



The Apple IIGS Bootup Screen

Apple II GS specifications:

System Specifications

Motherboard ROM 01

- 2.8 mhz 65C816 CPU (see right picture) that runs at selectable 1.024 mhz or 2.8 mhz
- 256k RAM (expandable)
- 128k ROM
- 1 memory expansion slot (expandable to 8 meg)
- 7 general purpose slots (accepts any Apple II cards)
- built-in ports for keyboard, RGB monitor, NTSC output, disk drives, joystick, modem, printer

(There was a ROM 00 release before ROM 01, but it didn't last very long due to bugs in the design)

Motherboard ROM 03

Same specs as ROM 01 except for the following changes:

- 1.125meg RAM (expandable)
- 256k ROM (entire GS/OS System 5.0.4 tools built-in)
- Shielded sound circuitry for cleaner audio production
- Removable battery for easy replacement

(No ROM 02 was released. Don't ask me why, ask Apple Computer, Inc.)

Graphics

All the standard Apple IIe graphics modes plus the following:

- 320x200, 16 colours per scanline
- 640x200, 4 colours per scanline (16 colours dithered)

Both modes support 16 colours per palette and 16 palettes per screen. This allows an effective 256 colours on screen. Clever programmers can increase it to 3,200 colours using special programming tricks, something similar to the Amiga's HAM (Hold-And-Modify) mode.

Sound

- 32 oscillator Ensoniq 5503 DOC (Digital Oscillator Chip)

- 64k of dedicated sound ram
- also supports the original 1-bit Apple II speaker

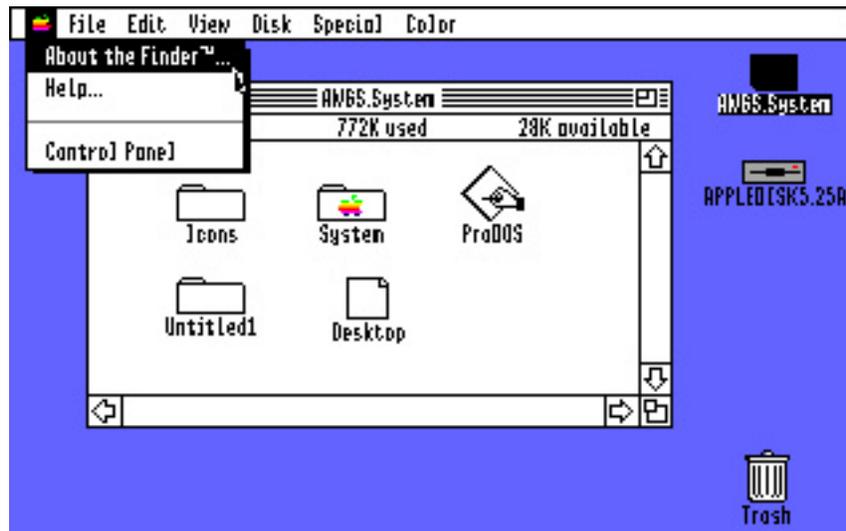
The DOC allows playing back of digitized waveform samples. Imagine listening to the Apple IIGS performing a full symphony orchestra or speaking with human clarity..... and all these way back in 1986!



Apple II GS operating system info:

The Operating System GS/OS

The operating system is written by the Apple II division of Apple Computer, Inc. The latest and last version released was GS/OS 6.0.1. GS/OS is one of the most technologically advanced single tasking OS ever developed for a personal computer. It fully supports the Macintosh-style interface complete with windows, icons, pull-down menus and mouse support. From afar, the GS/OS desktop looks exactly like a colour Macintosh (the Apple IIGS was once called the "Colour Mac" before the announcement of the first colour Macintosh) and functionally it is very similar too. Best of all, for all its power, GS/OS occupies less than 800k of disk storage and will happily boot up off a 3.5" disk. (Now, try that for Windows!)



The Apple IIGS Finder
(Nope, it is not a Mac. Look carefully)

"It's an obsolete computer!" Or is it?

People claim that the IIGS with a primitive 8/16-bit CPU running at a miserable 2.8 mhz (it doesn't even have native multiply/divide operations!) and its outdated graphics specifications make it an obsolete computer.....

Well, yes and no, depending on how you look at it. It is obsolete in the sense that companies like Microsoft will not write a WinWord GS, Lotus will not produce a Lotus 1-2-3 for GS/OS, Aldus will not make a PageMaker GS, etc. Even Apple Computer, Inc. has stopped manufacturing the machine, so it's unlikely there will ever be a new ROM upgrade nor a new GS/OS version.

Despite all that, the Apple IIGS still has much life in it. Owing to its Apple II heritage and philosophy of expandability, many peripherals have been developed for it (video overlay card, video digitizer, hardware accelerators, maths coprocessors, hand-held scanners, etc). In addition, the IIGS can still hook up to and use many of the new peripherals in the market (high-speed modems, inkjet and laser printers, CD-ROMs, etc). Small but loyal Apple II companies are still churning out innovative products for it (like the Second Sight VGA card to break the IIGS graphics barrier and bring it into the era of SVGA graphics).

Software wise, the IIGS has its own unique programs that do their jobs pretty well. An advanced operating system, sophisticated hypermedia software, powerful productivity tools for word processing, database and spreadsheet, plus an assortment of games make the IIGS a fun machine for work and play. There is even a complete set of development tools and programming languages (C, Basic, Pascal, Assembly, Modula-2, Forth, Lisp, etc) for it. Despite claims from others and a "No-no, it cannot be done!" answer from Apple Computer, Inc., a Unix environment has been developed and marketed for the IIGS, with full pre-emptive multitasking support. Furthermore, a TCP/IP software is pending release real soon now and IIGS users can hook up to the Internet directly as well. Now that's pushing an "obsolete" machine to its limits!

The neat thing about IIGS software is that they are small yet powerful. Just how many computers these days can run their latest OS and programs off a 3.5" disk drive and a few floppies? The Apple IIGS sure can! So even if the hard drive were to go bonkers, you will not be left with a large paperweight and a blank monitor. 99% of the IIGS software does NOT require a hard disk at all.

Apple II Information

Well, the bottom line of all these is that people all around the world are still using the Apple IIGS computer 'coz it's a cool, neat and fun machine. Just pop in to the comp.sys.apple2 newsgroup or drop by the IRC #appleiigs channel to see how many IIGS users are still around.

The Apple II Family Hall of Fame

(Including the Apple I and Apple III)



Apple I



Apple II / II+



Apple III / III+



Apple IIe / IIe enhanced



Apple IIc



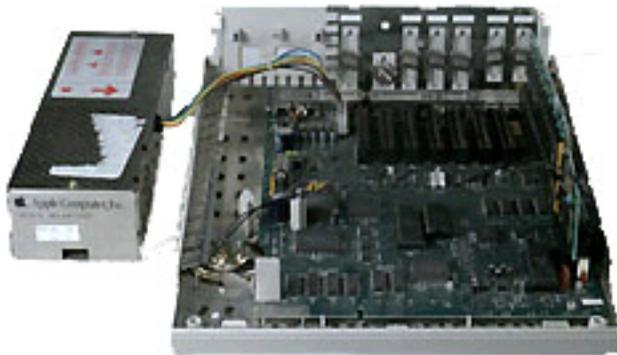
Apple IIe Platinum



Apple IIc Plus



Apple II GS



Inside the Apple II GS

T H E E N D