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Brisbane

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1986

NEW Apple IIGS announced ...

North Ryde, Sydney, NSW -- 16 Sep 86

On September 16 Apple announced a new high-end computer of the Apple II family - designed to combine the software compatibility and expandability of the Apple IIe with the power and user interface of the Macintosh.

The "GS" in Apple IIGS underscores the emphasis on graphics and sound - two of the strengths of the new machine.

General features include faster processing speeds, high-resolution graphics, greater memory and high quality sound synthesis capabilities. The computer will reinforce the appeal of Apple equipment to home, education and business users seeking high performance and superior resale value and thousands of software options.

The Apple IIGS is a powerful contemporary addition to the Apple II line originally launched in 1977. With each subsequent model, Apple has ensured a complete upgrade path to the new level of performance, resulting in an Australian installed base of over 80,000 Apple II computers.

The IIGS features a new Apple colour scheme called "platinum", which is also employed on several new Apple peripherals.

"We took the best of the IIe, IIc and Macintosh to create a computer ideally suited for both home productivity and educational use," said David Strong, Managing Director of Apple Computer Australia. "Combining the IIe's expandability, the IIc's built-in features and software that incorporates a Macintosh-like interface, the IIGS puts our best ideas in one machine."

Five design criteria were used in the

continued -->

Hands On

The NEW Apple IIGS

While it may be all very well for Apple Australia to give a slide presentation and discussion on the merits of the new IIGS the small group of 'friends of Apple', their term, not mine, sat with barely disguised impatience hoping that these covers would be thrown off the mysterious objects scattered around the room so we could see the "real thing". Finally, marketing having been satisfied the moment arrived, but it took some people a moment or two to realise that the full colour picture of the IIGS rotating quickly on the colour display screen before us was not a clever videotape but was being produced by the IIGS itself!

In a word - **magnificent!**

It's everything the Amiga tried to be and the Atari would like to be.

The colour and graphics are superb - a digitized picture of a girl's face was nearly photographic in its quality - a MacPaint like program **GS Paint** was able to manipulate any pixel, change its colour, change the palette or do a word processor like search and replace for specific colours or shades. This alone opens up a whole new dimension for artists and schools.

The sound range and quality is equally amazing. A rock music introduction with

reproduction that would have done credit to a quality cassette tape recorder was played entirely from software.

The display machines were equipped with RGB colour monitors and 3.5 inch drives. As early newspaper photographs have already shown the IIGS itself is a box-like structure with a small front bottom lip. The keyboard is not unlike a IIc with a keypad to the right. It connects to the main unit through the DesktopBus with the cable coming from the top left or right of the keyboard - whichever side is not used gets the mouse. Handy for left handers.

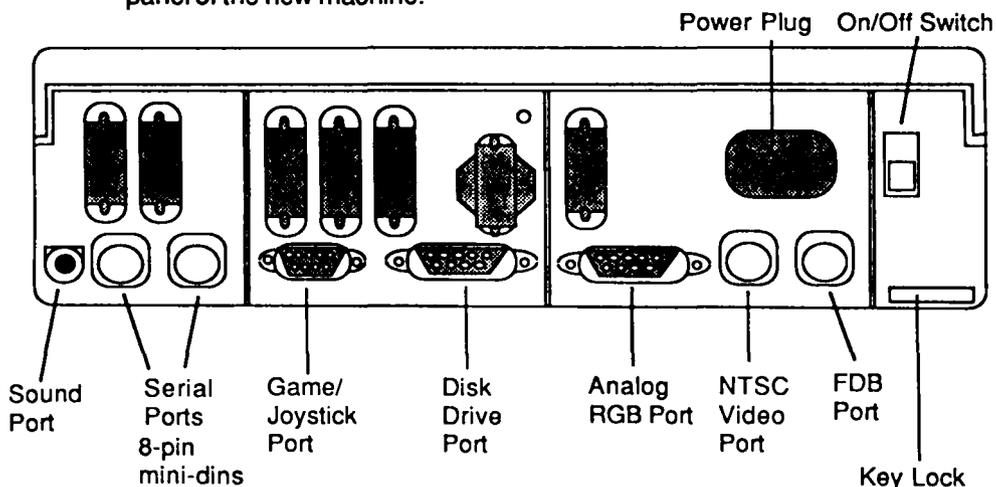
Specific IIGS software was limited to the graphics demonstration and a pre-release updated AppleWorks with mail merge, DIF files and the ability to load entirely into expansion RAM if its available. It looked great with white text on a blue background.

Most attributes of the IIGS can be controlled from a software Control Panel and the settings are protected in a small battery backed RAM area. This can include an assignment as to which slot is the default boot slot.

A SCSI expansion card will be available and a version of Apple's HD20 (20 mbyte hard drive) will be released in IIGS colours.

Inside the IIGS is quite a neat design, the power supply is along the left hand side, in the 'traditional' position. The main board has only a few large custom chips, the Mega II, basically a complete Apple II on a chip, the Ensoniq Sound Chip, the 65C816, and an obscenely few number of RAM chips.

Below is a drawing of the back panel of the new machine.



Apple IIGS -- continued

development of the IIGS -

- 1) software compatibility with the IIe family
- 2) faster speed
- 3) more memory
- 4) enhanced graphics, and
- 5) sound.

In Australia, the IIGS includes a standard 512kb RAM with a locally manufactured memory card, 128 kb ROM and eight expansion slots. Built into the system are serial ports, a head-phone jack, a joystick port, a video port, support for the AppleTalk network, a new Apple desktop bus port for keyboard, mouse and other input devices, and disk interface to both 5.25 and 3.5 inch disks.

Like the Macintosh the IIGS comes with an AppleTalk Protocol and a communications chip that supports the AppleTalk network. These features give the IIGS the potential to print on a LaserWriter printer and connect with other Apple computers on the AppleTalk network.

Engineers at Apple tested the current best-selling Apple II software programs to ensure compatibility. The IIGS runs more than 90 percent of these popular packages. Those that do not conform to Apple programming guidelines and communications packages are among programs that will require revision by their developers.

In addition to testing existing software Apple placed more than 160 prototype IIGS

machines with developers. Apple anticipates new software products in the 3.5 inch disk format, programmed to take advantage of the IIGS computer's speed, colour, sound and memory features to be quickly available.

Many developers are supplying applications with graphic interfaces similar to that of the Macintosh. Others are creating programs that fully use the sound and graphics capabilities of the IIGS, such as those that incorporate video digitizers and voice synthesizers. Still others are enhancing existing programs or converting them to 3.5 inch format, which provides the programs with large disk space.

To bring more power to those who use their personal computers heavily, Apple has provided faster processing speed and increased memory. These features allow applications to run faster and make possible the IIGS's graphic user interface. The increased clock speed with a 16-bit 65C816 microprocessor makes the IIGS more than twice as fast as other members of the II family, which use the compatible 65C02 chip. RAM can be expanded to 8mb and ROM can be increased to 1mb.

Superior graphics support easy to learn software with Macintosh like interfaces, animation and enhanced simulation capabilities. The following graphics modes are available:

- 640 by 200 pixels with 4 colours per scan line from a choice of 4096 colours
- 320 by 200 pixels with 16 colours per scan line from a choice of 4096 colours
- 560 by 192 pixels in monochrome

Sound capabilities have also been enhanced. The IIGS can play up to 15 notes simultaneously for synthesizing both music and human voice. This is achieved through an Eqsoniq sound chip with its own 640kb dedicated RAM, the same chip used in professional quality music synthesizers.

The sound capability can be used to teach foreign languages or compose musical scores, or combined with a word processor can be used to help students learn to read and write. New applications using computer generated sound also will benefit handicapped people.

Prices for the Australian market are expected to be announced with local availability in October.

A FIRST LOOK!

Yes we have been able to touch, poke & pry at a brand new Apple IIGS.

See page 5 for a first hand report!

Apple IIGS

Technical Specifications

CPU

Microprocessor: 65C816
Clock Speed: 2.8 or 1.0 mhz
(user-software selectable)
Address bus: 24 bits
Address range: 16,777,216 bytes
16-bit registers: accumulator,
two index registers
direct register
stack pointer
program counter
8-bit registers: data bank
program bank
status.

MEMORY

Memory - RAM: 512kb expandable to 8mb
ROM: 128kb expandable to 1mb
ROM includes: Control Panel
QuickDraw II graphic routines
Memory Manager
Desk Accessory Manager
Free-form wave form synthesizer
Apple IIe and IIC switches
AppleTalk protocols
Apple DeskTop Bus
SANE Numerics
Event Manager
Tool Locator
Video Firmware
Device Drivers
Extension to system monitor for 65C816 support
Diagnostic routines.

DISPLAY

Super HiRes 1: 320 by 200 dots, 16 colours per line and 256 colours per screen from palette of 4096
Super HiRes 2: 640 by 200, 4 colours per line and 128 colours per screen from palette of 4096
Double HiRes: 560 by 192 - 16 colours
Double LoRes: 80 by 48 - 16 colours

HiRes: 280 by 192 - 6 colours
LoRes: 40 by 48 - 16 colours
Text - 40 col: 40 col by 24 lines
Text - 80 col: 80 col by 24 lines.

Character Sets

32 Uppercase letters, 32 lowercase letters, 32 special characters, 32 MouseText characters and 12 unique characters for each os US., UK., French, Danish, Spanish, Italian, German and Swedish.

Keyboard

Standard Typewriter style
80 keys plus 14 key numeric keypad
2 Apple DeskTop Bus connectors

Interfaces

Expansion slots:
- 1 multiple purpose RAM/ROM memory
- 7 general purpose fully buffered with interrupt and DMA priority.
Serial ports:
Two 8-pin connector-use either for AppleTalk
Disk Drive Ports:
one 19-pin D-connector, allows daisy chain up to 4 Apple 3.5, 5.25 and Unidisk drives.
Video Oputput:
- Analog RGB via 15-pin D-style connector
- Composite colour via RCA jack
Apple DeskTop Bus:
one 4-pin on computer
two 4-pin on keyboard
Game I/O: 9-pin D-style
Audio:
- RCA mini headphone/speaker jack
- I/O connector on main logic board

Operating Systems

- ProDOS8 and ProDOS16
- Pascal
- DOS 3.3
- CP/M (with coprocessor card)

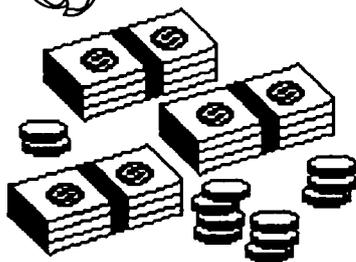
Other:

Real time clock - set through Control Panel
Battery backup for Control Panel settings.

Physical (Main unit)

Width 11.2in (284mm)
Depth: 13.7in (348mm)
Height: 4.6in (117mm)
Weight: 8.72lbs (3.96kg)

THE TRADING TABLE



Acting Secretary's Notes



As you are no doubt aware the next meeting is our Annual General Meeting and Birthday Party a time we are all looking forward to - don't forget to come! - however the serious side must come first and anyone anxious to be nominated for a position on the Committee should get their forms to the Secretary as soon as possible. Further to our list of nominations from last month we now have Robert Godbehere who would like to continue in the position of Software Librarian.

For anyone else interested in any of the positions nominations will be accepted on the morning of the meeting.

In keeping with our 'traditions' we will have our Apple ice cream cake, apple pie and cream and Apple Cider (non-alcoholic of course). Very little serious computing is to be done on the day and wives, children and friends are all invited to share the festivities. The formal portion - election of new committee is timed for around 12:30 immediately followed by ice cream cake and cider. To round out the day it is hoped that there will be no shortage of volunteers to clean up the area so that the Hooper Centre will get a good impression of the new committee.

At this last opportunity your 'old' committee hand over the reigns with some regret. The Committee has remained the same for around 5 years - quite a time in computer terms - but the time has come for us to move on to other interests and pass the joys, and problems, over to a whole new team.

BIRTHDAY SALE

To help celebrate the User Group's birthday, the Trading Table will have special prices on most stock.

Disks are in somewhat of a short supply at the moment so our selection is not as great as usual and prices may have to vary on the day.

DESCRIPTION	PRICE
Control Data DS/DD disks (1lb. case)	29.95
Control Data SS/DD disks (" ")	23.95
3.5" SS/DD disks (softpak)	60.00
3.5" DS/DD " Wabash (each)	5.20

APPLE-Q The Brisbane Apple Users Group

NOMINATION FORM

for a position on the Management Committee
for 1986 / 87

I _____ (Membership #) _____
do hereby nominate

_____ (Membership #) _____

for the position of _____

Signature of person nominating. _____

Any financial member
may nominate any other
financial member for
the position of

Chairman
Secretary
Treasurer
Magazine Editor
Trading Table Manager
Librarian (2)
Committee Members (2)

If more than one
nomination is received
for any one position a
ballot will be held.

UNCLASSIFIED ADVERTISEMENTS

These
Spaces
Available

Apple-Q User Group Newsletter Advertising Rates

Members advertising
personally owned items
for private sale to other
members

NOTHING

Advertisements may be handed
to the Trading Table for
publication in the next months
Newsletter

WHAT'S WHEN

Sunday 16 November 1986
Open day at the Hooper Centre

Monday 17 November 1986
Committee meeting

Sunday 21 December 1986
Christmas - no meeting

Monday 22 December 1986
Christmas - no meeting

Apple], //e, //c & Mac -
the reason for it all!
(and Apple /// & Lisa!)

CREDITS

Word processing: MacWrite
Page Layout: PageMaker
Copy Printing: LaserWriter
Printing & distributing:
Hooper Centre

Credits

Editor: Peter Pegg (still away)
Assistant Editor: Graham Hannam (doing it, for the last time)
Chairman: Peter Newland (until Oct 19)

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