<%=-------------------------------------------------------------------------=%>  
<%=--=%> The Macintosh II <%=--=%>  
<%=--=%> <%=--=%>  
<%=--=%> Presented by <%=--=%>  
<%=--=%> The Dragons Den BBS/Cat-Fur/AE <%=--=%>  
<%=--=%> (617) 922-1917 <%=--=%>  
<%=--=%> March 2, 1987 <%=--=%>  
<%=--=%> <%=--=%>  
<%=--=%> Written by <%=--=%>  
<%=--=%> The Dragonslayer <%=--=%>  
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# Powerful Open Macintosh Expands Applications

AppleWorld, Los Angeles, California, March 2, 1987. Apple Computer, Inc.

today introduced a high-performence, open architecture member of the Macintosh  
personal computer family, the Macintosh II. The new Macintosh offers users  
high speed, expansion and fleibility. It modular design and open architecture  
permit a number of display options, including color displays, and th ability to  
incorporate add-in cards from Apple and third party for additional  
functionality.

This top-of-the-line model is intended for advanced applications in business,  
desktop publishing, higher education and engineering enviroments.

"Because of its power and expandability, The Macintosh II strengthens Apple's  
position in markets in which we are already participating and extends the  
Macintosh personal computer family into new markets," said William V.

Campbell, executive vice president U.S. Sales and Marketing.

At introduction, the Macintosh II operates most existing Macintosh  
applications up to 4 times faster than the Macintosh Plus. The Macintosh II  
offers upward compatability with the majority of existing applications. Apple  
is working closely with third-party hardware and software developers to ensure  
that a wide range of software, peripherals and add-on cards are developed to  
take full advantage of the advanced features of te Macintosh II.

# Macintosh II Specifications

The Macintosh II is based on the 32-bit Motorola 68020 microprecessor  
operating at 16 megaherta (MHz). It includes a floating point arithmetic chip,  
the 68881, that can perform mathematical operations up to 200 times faster then  
the 68020. These features let the Macintosh II process at a speed of 2 million  
instructions per second (2 MIPS). The Macintosh II also features transfer  
rates greater then 1 megabyte(MB) per second over its Small Computer Systems  
Interface(SCSI) interface.

The Macintosh II come standard with 1 MB of random-access memory(RAM),  
expandable to 8 MB on the logic board. Additional RAM expansion of up to 1.5  
gigabytes(GB) can be achived with add-in boards.

The Macintosh II provides Macintosh Plus-compatable ports for a SCSI  
connection, two RS-422 serial ports, an external SCSI disk drive interface and  
a sound port with four-voice stereo capability. Like all Macintoh computers,  
the Macintosh II has the AppleTalk network built in.

In addition, the Macintosh II includes six slots that use the  
high-performance NuBus protocols. NuBus is a processor-independent, industry  
standard bus that supports 8-, 16- 32-bit data paths. It permits the fast  
transferof large quantities of data between add-on cards and he logic board.

NuBus features fair arbitration and geographical addressing. Te two  
characteristics let the add-on cards "identify" themselves so, unlike other  
computer systems thereis no need to set dip switches to configurethe ystem.

Because NuBus lets add-in cards be placed in any slot, thre is exceptional  
flexibility and ease associated with system configuration. Th six slots let  
the Macintosh II operate a wide range of performance-driven, deanding  
applicatons and expand as users' needs expand.

The video interface is provided by the Macintosh II video card which fits in  
one of the slots. The card can drive either of the high-resolution monitors  
introduced today. In its standard configuration, the card can simultaneously  
generate 16 colors or shades of gray from a standard palette of more than 16  
million colors. With the addition of the Macintosh II video Card Expansion  
Kit, the card can generate up to 256 colors or shades of gray from te same  
palette.

Users may choose a 12-inch, high-resolution, monochrome monitor or a 13-inch,  
high-resolution red-green-blue(RGB) color monitor. Both display units feature  
640 x 480 pixel resolution and utilize an analog input format. This formatlets  
the monochrome monitor display millions of gray values and he color monitor  
display millions of colors or gray values.

The monochrome monitor, which is capable of displaying the full width and  
over half the length of a page, suits a need in productivity applications such  
as word processing, spreadsheets and business graphics.

The RGB monitor combines the full-width viewing area with te unique  
capability of displaying high-resolution text and graphics in both colorand  
black-and-white. This provides the Macintosh II user with a versatile,  
high-performance monitor capable of satisfying a broad spectrum of user needs  
from word processing to advanced graphics. A tilt-and-swivel monitor stand is  
available as an option for the high-resolution monitors. Users can configure  
the Macintosh II with multiple monitors by adding video cards in slots.

Various monitors and video cards are also available from third parties. The  
Macintosh II also includes the Apple Desktop Bus(ADB) standard interface for  
input peripherals. ADB is also used on the Macintosh SE as well as the Apple  
//gs. The ADB lets users connect up to 16 input devices concurrently,  
including such peripherals as a keyboard, mouse or graphics tablet. Users may  
also choose from two Apple keyboards: the Apple Keyboard includes a typewriter  
style layout, a numeric keypad and cursor keys: and the Apple Extended  
Keyboard includes the numeric keypad, function keys and special purpose keys  
for sing alternative operating systems, such as MS-DOS or terminal emulation  
programs. Keyboards are packaged and sold separately. The Macintosh II can  
internally accomodate, simultaneously, up to two 800 kilobyte(KB) floppy disk  
drives and one 20, 40, 80 MB hard disk. Both the 40 and 80 MB hard disks  
feature a very fast access time of less then 30 milliseconds(ms). In addition,  
up to six storage devices can be daisy-chained through the external SCSI port.

For those users who want to back up critical data from thier hard disks, Apple  
also introduced an optional SCSI 40 MB tape backup unit, which provides file  
and image backup on preformatted, one-quarter-inch tpae cartridges. Apple also  
introduced the Apple EtherTalk interface Card, which provides direct  
connectivity to Ethernet networks for the Macintosh II. Apple will support  
AppleTalk network architecture and A/UX (Apple's UNIX product) networking  
software enviroment for use with the EtherTalk Card. Third party vendors are  
expected to provide software support allowing connectivity to other  
enviroments. The EtherTalk product will be available in the second half of  
1987.

# Alternative Operating Enviroments

## A/UX, a version of AT&T UNIX

Apple also announced today that it will offer a version of the UNIX operating  
system for the Macintosh II. This operating system is widely used in  
universities, in government and by technical professionals. An optional  
Motorola 68851 paged memory management unit (PMMU) is required for A/UX and  
will be available from Apple. Unisoft Systems developed a significant portion  
of A/UX under contract with Apple. A/UX is a full implementation of the AT&T  
UNIX, System V, Release 2 Version 2 operating system and includes features from  
Berkeley's 4.2 BSD version. The featurs incorporated from 4.2 BSD provide easy  
portability of programs from 4.2 BSD to A/UX and andvanced communications  
capabilities.

A Macintosh II running A/UX offers the tradidional user interface of a UNIX  
operating system: a high-powered command line interpreter. Standard UNIX  
System V applications can be easily ported to A/UX. Additionally, a key  
enhancement from Apple lets A/UX developers have full access to the Macintosh  
Toolbox. A/UX applications can therefore have the complete look and feel of  
Macintosh programs. New applications, properly designed, can operate in both  
enviroments.

A/UX also offers, through add-in cards, connections to Ethernet, AppleTalk  
and serial communications networks using standard UNIX communications and  
electronic mail systems. It can also act as a server or a client on a Sun  
Microsystems Network File Systems (NFS) Ethernet network. The Apple EtherTalk  
Interface Card provides direct connectivity to Ethernet networks for the  
Macintosh II. A/UX is expected to ship this sumer. Pricing and licensing will  
be announced in May.

## MS-DOS

Apple's goal is to provide data file inter-change with other operating  
systems, to provide MS-DOS data file compatability, Apple is introducing  
InterFile, file transfer software, a 5.25-inch MS-DOS floppy disk drive and  
drive controler cards. In addition, MS-DOS coprocessor cards for te Macintosh  
II and the Macintosh SE are available from third parties.

For example, users who purchase the 5.25-inch drive and controler card  
from Apple can read in a Lotus 1-2-3 data file so it can be used in a  
spreadsheet program, such as Microsoft Excel, on the Macintosh. Or, users who  
choose a coprocessor card from a third party can run dBase III or Lotus 1-2-3  
in a window on the Macintosh screen.

# International Models

Apple is Simultaneously introducing the Macintosh II available in 15  
localized versions in 10 different languages, including English, French,  
German, Spanish, Flemish, Norwegian, Japanese, Dutch, Swedish and Italian. The  
Macintosh II features a universal power supply that permits operation with all  
common voltage.

# Price and Availablity

The Macintosh II will be available in May in two configurations in a  
new platinum color: a basic system, including 1 MB of RAM and one 800KB floppy  
disk drive is offeredat a suggested retail price of $3,898, inclusing keyboard;  
a second configuration, including 1 MB of RAM, one 800KB floppy disk drive and  
one 40 MB internal SCSI hard disk is listed at a suggested retail price of  
$5,498, inclusing keyboard. Many of the other products introduced today are  
available as options for the Macintosh II.

# Macintosh Technology

Macintosh personal computer technology -- manfested by ease of use,  
graphics and unique functionality -- features a very high level of software  
consistancy and tight intergration across all applications, resulting in low  
requirements for user support and training.

These attributes have contributed to the widespread acceptance of the  
Macintosh personal computer family accross all sizes of business and in higher  
education and has increased momentum by third-party developers over the past  
year.

Over one million Macintosh computers handle business, education and  
consumer applications.

## Call These fine boards.

Dragons Den...................(617) 922-1917  
Capital Connection............(916) 448-3402  
Capital Connection ][.........(716) 473-8051