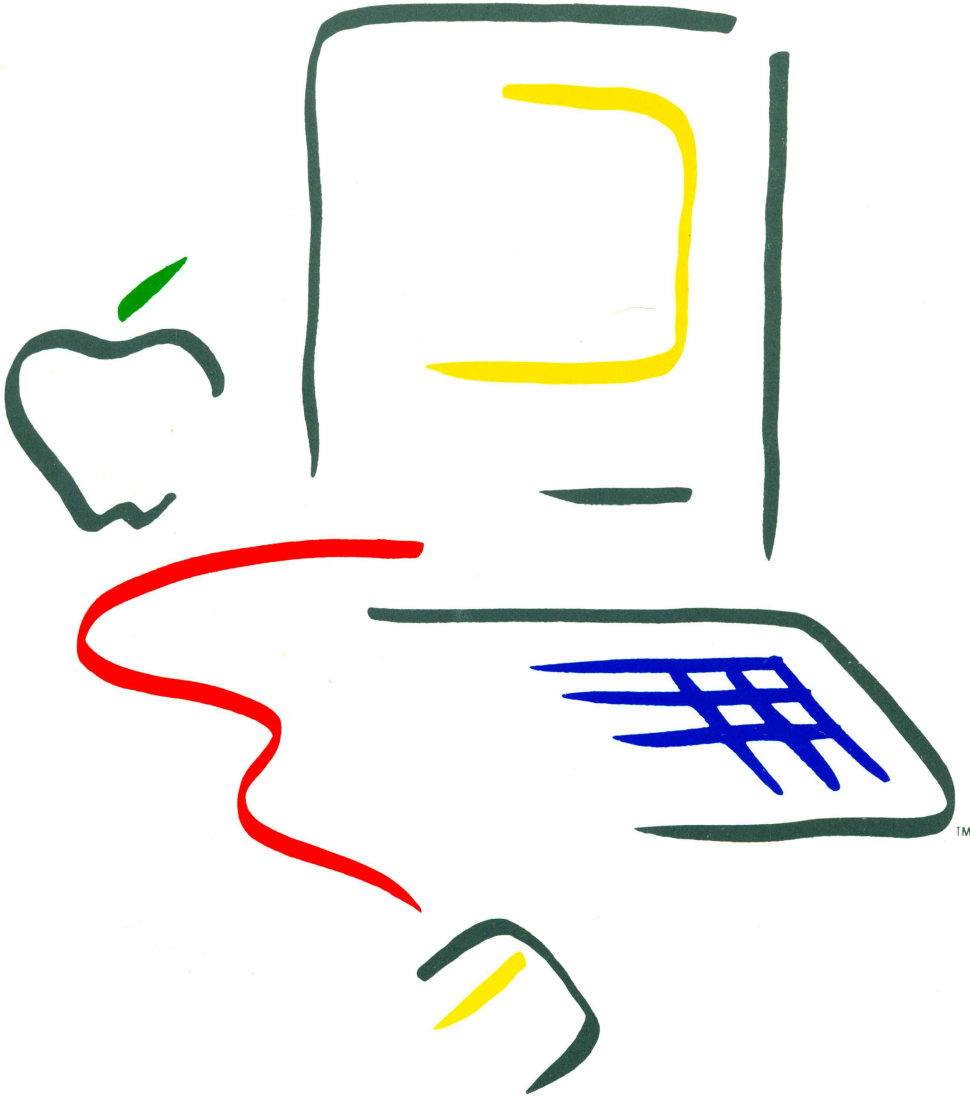


Macintosh

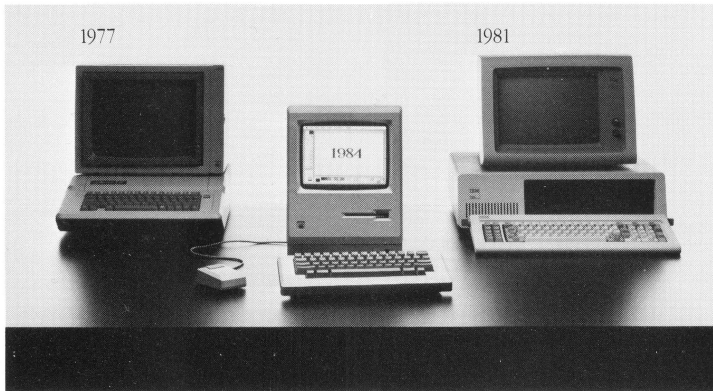
Selling

Guide



It's not just another personal computer. It's already becoming an industry standard.

To create a standard, you need more than just a good product. You need to capture the enthusiasm of the public — and the commitment of the industry. It has been done only twice before.



In 1977, Apple introduced the Apple II personal computer. Quickly, it became the most popular computer on the market, and the first industry standard in personal computing. Then, in 1981, IBM introduced its personal computer, which eventually became the second standard in the development of personal computers. Now it's 1984, and Apple has introduced Macintosh — an advanced personal productivity tool that is quickly becoming the third industry standard.

But don't just take our word for it: ask the Macintosh software team. You already know them because they're some of the most respected software developers in the business.



"To create a new standard takes something that's not just a little bit different. It takes something that's really new and captures people's imaginations. Macintosh meets that standard."

Bill Gates,
Chairman of the Board & CEO,
Microsoft Corporation

"Macintosh is much more natural, intuitive, and in line with how people think and work.... It's going to change the way people think about personal computers.... Macintosh sets a whole new standard, and we want our products to take advantage of this."

Mitch Kapor, President &
Chairman of the
Board, Lotus
Development
Corporation

"If you were to put machine 'X' on the table and a Macintosh on the table beside it, and then put up PFS software on both machines — like a taste test — we think Macintosh's benefits would be obvious."

Fred Gibbons, President,
Software
Publishing
Corporation

“When we started developing Macintosh, we knew it had to give people the computing power, ease of use, and flexibility they need at a moderate cost. To fit their workstyle. To take over their deskwork, not their desks. To go where they need it.”

To accomplish our design goals, we incorporated these four key points that collectively distinguish Macintosh from all other personal computers:

1. Lisa Technology
2. 32-Bit Architecture
3. Personal Productivity Software From Leading Software Companies
4. One Transportable Box

Lisa Technology

Macintosh incorporates the innovative technology that made Apple's Lisa™ system a breakthrough in personal computing. Lisa Technology represents a \$50 million investment in developing an advanced software technology — a technology that has forever changed the use of personal computers.

It has provided your customers with true ease of use, ease of learning, and software integration through the following features:

- Simple, consistent, pull-down menus throughout different programs
- Mouse-driven commands (simply point and click)
- Ability to cut and paste information between applications
- High-resolution, bit-mapped graphics
- Screen display of familiar desktop objects

32-Bit Architecture

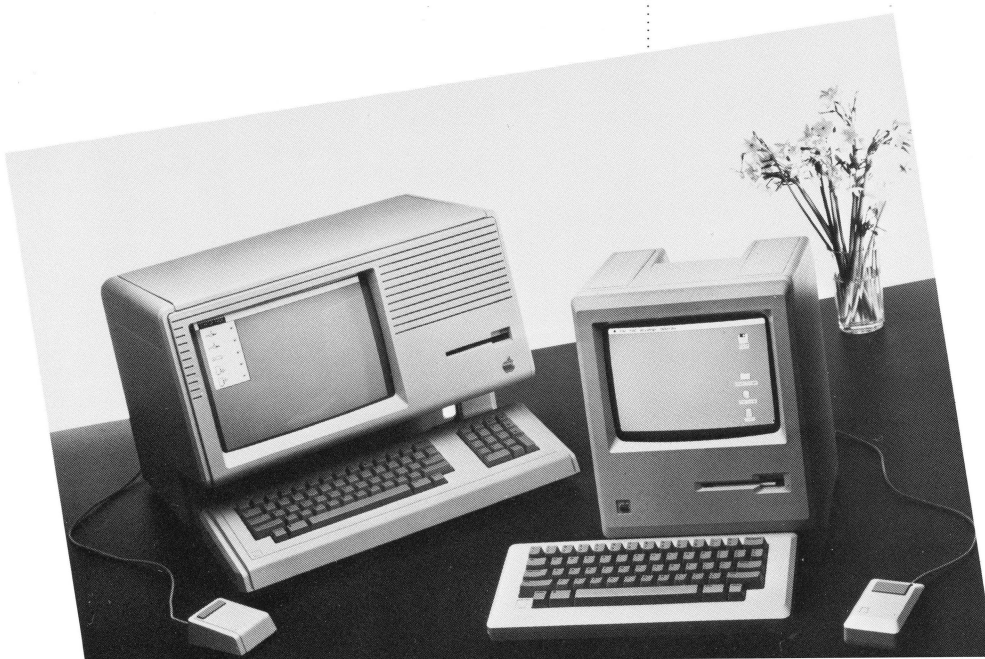
Macintosh has the heart of Lisa, so it's fast and powerful. The kind of performance and flexibility found in Lisa Technology could only be accomplished with 32-bit processor technology — performance that just couldn't be accomplished with 16-bit processors. This includes:

- 32-bit Motorola 68000 microprocessor with an 8MHz clock
- 192K standard memory, including 64K ROM (containing Lisa Technology operating functions) and built-in 128K RAM
- Built-in disk drive with additional 400K on-line storage expansion
- Sophisticated built-in graphics capabilities

16-bit 8088 microprocessor



Macintosh's 32-bit microprocessor



Personal Productivity Software from Leading Software Companies

Macintosh is backed by Apple's strong commitment to ensure an abundant supply of personal productivity software. Leading software developers such as Microsoft Corporation, Lotus Development Corporation, and Software Publishing, Inc. are already introducing applications designed to take advantage of Macintosh's power, ease of use, and software integration.

In fact, over 100 third-party developers started creating outstanding software for Macintosh months before its introduction. Here's just a sample of some of those developers...

Applied Software Technology
Great Plains Software
Aardvark/McGraw Hill
Business Solutions, Inc.
Continental Software
Hayden Software Co.
Microsoft Corporation
Software Publishing Corp.
AgDisk/Harris Technical Systems
Ashton-Tate
Logo Computer Systems, Inc.
Infocom
Southwestern Data Systems
BPI Systems, Inc.
Systems Plus
Artsci
Chang Laboratories, Inc.
Fox and Geller, Inc.
Lotus Development Corp.
Software Arts, Inc.
Sorcim Corp.
Microcom, Inc.
DB Master Associates
CBS Software
Sierra On-Line
Dow Jones & Company, Inc.
Blue Chip Software
Brock Software Products, Inc.
C.P.U. Inc.
Desktop Software Corp.
Digital Research Inc.
Execuware
Haba Systems, Inc.
Human Edge Software Corp.
Penguin Software, Inc.

What Apple is doing for the developer...

- Open architecture system for software development
- Comprehensive technical documentation
- Dedicated technical support staff
- Mac College — a Macintosh software development course
- Popular programming languages

...And what this means for your customer

- Key productivity software:
 - Word processing
 - Electronic spreadsheet
 - Design and business graphics
 - Data communications
 - Data-base management
- Consistent user interface throughout most applications
- Ability to cut and paste between applications — even those written by other developers
- Steady flow of new software products to meet your customers' future needs

One Transportable Box

Take a moment to think about how many separate components and costly peripheral cards a customer has to purchase to make our competitor's product complete, and how long it takes to set one up. We think you'll quickly appreciate the simplicity of Macintosh.

Macintosh takes up only slightly more space on a desk than a stack of paper. And its light weight makes Macintosh easy to move — across your desk or across town. Macintosh is a powerful system that's ready to go. And everything your customer needs to get started is already included, in one box.

- 10" x 10" footprint
- Weighs less than 20 pounds
- Comes complete in one box:
 - Computer*
 - 9-inch, high-resolution, 512 x 342 bit-mapped display*
 - Built-in 400K disk drive*
 - Detached keyboard*
 - Mouse*
 - Built-in clock/calendar*
 - Manuals and "guided tour" disk and cassette*
- Uses pocket-size, durable 3½-inch 400K disks
- Has two built-in AppleBus/serial ports for attaching peripherals; no cards needed
- Has a dedicated external drive and polyphonic audio port.

...and all at an **AFFORDABLE** price



Apple is complementing the impressive list of third-party software with its own unique productivity software. Each program features the ease of use and visual user interface your customers will come to expect every time they use a Macintosh software application.

Applications Software

MacWrite™ provides flexibility not found in other word-processing programs. Multiple font sizes and styles, proportional spacing, and easily adjustable margins and tabs give that "typeset" look to every document.

- Memo, letter and report oriented word processor
- Text and graphics integration
- Multiple font sizes, types, and styles
- Flexible formatting with headers, footers, and justification features

MacPaint™ gives you command over Macintosh's extraordinary graphics, for drawing anything from charts to art. Sketch, draw, and illustrate what words can't express. Create maps, graphs, letterheads, overheads, and announcements.

Using the Apple Imagewriter printer, MacPaint will print exactly what you see on the screen. And you can paste your drawings directly into any MacWrite document.

- Powerful presentation and design graphics
- Palettes of different shapes, forms, and patterns
- Single-pixel (point by point) editing capability
- Numerous font sizes, types, and styles

MacTerminal™ is a powerful communications package that is as easy to use as any of the other Macintosh personal productivity software applications. Used with the Apple Modem, the user can access the world at the click of a mouse.

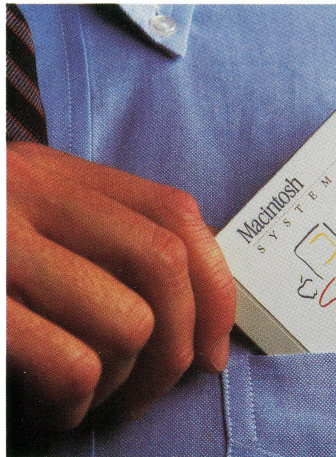
- VT100™, VT52™, and TTY emulator
- 3270 emulation via the AppleLine coax adaptor unit
- Error-checking file transfer with 9600 baud capability
- Ability to cut and paste into other personal productivity applications

MacProject™* lets you plan and revise schedules easily, incorporating costing and time-increment functions. It saves hours of tedious drawing and helps you gain control over complex projects.

- Project scheduling and costing with multiple activity selection
- Gantt charts displaying resource usage
- Flexible layout of charting and multi-page documents
- Ability to cut and paste data into spreadsheet applications

MacDraw,™* developed from the popular LisaDraw graphics package, is an object-oriented graphics editor that is ideal for business presentation graphics. As in MacPaint, graphics can be cut and pasted into text documents.

- Full-page and multi-page layouts with scrolling capabilities
- Multiple font sizes, types, and styles
- Ability to work with multiple documents
- Familiar, easy-to-use palettes.



Programming Tools and Languages

Macintosh Pascal' is a highly interactive, interpretive Pascal that employs Macintosh's user interface to provide the same consistent ease of use found in all applications.

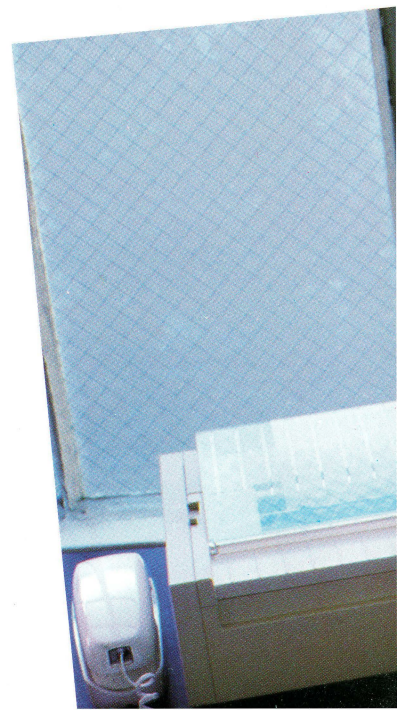
- Interactive symbolic debugger
- Access to Macintosh's built-in graphics routines
- Full IEEE floating point arithmetic
- Separate program and output windows

Macintosh Basic* is a high-performance BASIC programming language, allows access to Macintosh's user interface and provides ease of use by employing structured statements.

- Expanded feature set over standard BASIC
- Multi-window capabilities
- Simultaneous multiple-program interpreter with single-step debugging capability
- Interactive symbolic debugger

Macintosh Assembler/Debugger† is a comprehensive software development tool that gives access to all ROM routines and Macintosh's user interface.

- Assembler development environment
- Complete macro assembler
- Program editor and debugger
- Ability to edit multiple documents concurrently



Macintosh Accessory Products

The most popular accessories at affordable prices. It all adds up to a total Macintosh solution for your customers — and for you. Macintosh systems can be expanded easily with products from Apple's line of high-quality, low-cost peripherals. Built-in ports provide direct accessory connections; *no expensive interface cards are required.*

Macintosh External Disk Drive

adds extra on-line storage, reduces the need for swapping disks, and makes disk backup easier.

- 400K formatted storage
- Uses pocket-size, 3½-inch, 400K disks
- Macintosh-styled case
- Plugs into dedicated port; no additional card needed

Apple Imagewriter Printer and Accessory Kit perfectly reproduces everything on the Macintosh screen.

- Flexibility of printing any mix of graphics and text
- Printing speed of up to 120 cps
- Finished-quality or quick-draft print speeds
- Plugs into dedicated port; no additional card needed

Macintosh Security Kit is an easy-to-install system that makes sure Macintosh is there when you need it.

- Built-in security slots on Macintosh and keyboard
- Steel cable loops through system and around leg of desk or table (lock not included)

Macintosh Numeric Keypad provides easy entry of numerical data, and is compatible with appropriate Macintosh program applications.

- Four directional cursor-control keys
- Daisy-chain connection from keyboard; no card needed
- Easy-to-install modular jack connection

Apple Modem and Accessory Kit links Macintosh with remote computers and electronic information services such as Dow Jones News/Retrieval®, CompuServe®, and The Source.™

- Auto-dial and auto-answer
- 300-baud and 1200-baud models
- D.C.Hayes® Smart Modem-compatible
- Works with both touch- and rotary-dial telephones

AppleBus, available later this year, is a low-cost solution for linking Macintosh to other Apple products in a local environment.

- Connection of up to 16 Apple computers, peripherals, or servers
- Simple and economical design
- Provides connection to other networks
- Appropriate hardware already built into every Macintosh and Lisa



Macintosh Carrying Case is a rugged case that takes Macintosh almost anywhere.

- Strong, water-resistant nylon
- Individual pockets to hold all Macintosh components
- Both hand and shoulder carry-straps



The Advanced Personal Productivity Tool for Knowledge Workers

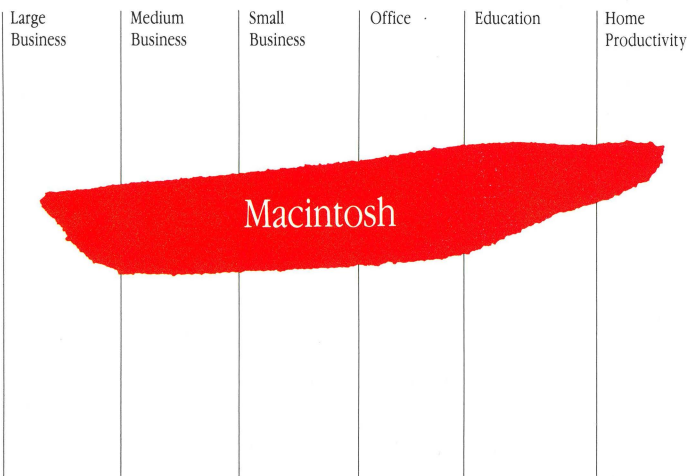
Our research shows there is a tremendous need for an easy-to-use and easy-to-learn productivity tool for a large group of people we call "knowledge workers." Most of us recognize these people by their titles — managers, analysts, planners, consultants, coordinators, supervisors, administrative assistants, and even college students. There are approximately 25 million knowledge workers in the United States and Canada alone, and less than 5 percent of them are currently using a personal computer.

Generally, knowledge workers are people who take information and ideas and process them into plans, reports, analyses, memos, and budgets. Their use of a personal computer will not necessarily be an intense, all-day-long use, since they often bounce from one activity to another throughout the day — from meeting to phone call, from memo to budget, from mail to presentation. Like the telephone, their personal computer must be extremely powerful, yet extremely easy to use.

These are people whose primary responsibilities are to:

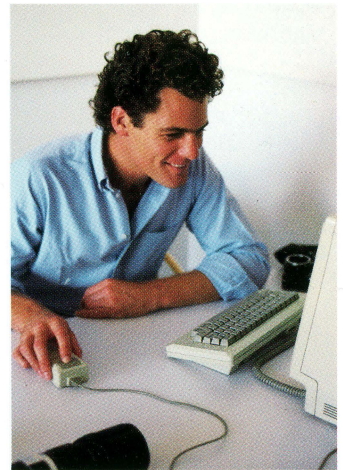
- *gather* information (retrieve and organize data)
- *analyze* the data (perform numerical, what-if analyses)
- *summarize* the results of their analyses (write memos, letters, and reports)
- *prepare and present* their conclusions (prepare written proposals, presentation slides, and overheads)

As the chart below indicates, knowledge workers exist in all market segments, as does Macintosh. But is Macintosh for *all* knowledge workers? Such needs as larger storage or memory capacity, color, other operating systems, or unique software applications might be better addressed by other Apple products. Although Macintosh is not for all knowledge workers, the chart shows that Macintosh will impact every market segment because it features the very productivity tools that these people most frequently use.



- Financial Consultant
- Lawyer
- Analyst
- Insurance Agent
- Stock Broker
- College Student
- Sales Representative
- Publicity Coordinator
- Banker
- Contractor
- Purchasing Agent
- Financial Planner
- Engineer
- Purchase Manager
- Real Estate Agent
- Graphic Designer
- Accountant
- Publishing Agent
- Nutrition Counselor
- Manufacturer's Representative
- Advertising Manager
- Administrative Assistant
- Investor
- Small Business Manager
- Personnel Manager
- Medical Professionals
- Technical Writer
- Architect
- Production Supervisor
- Scientist
- Technician
- Marketing Manager
- Research Coordinator
- Product Manager
- Editor
- Writer
- Account Executive
- Communication Consultants
- Traffic Coordinator
- Travel Coordinator
- Hospital Administrator
- System Analyst
- Teacher
- Dentist
- Environmental Consultant
- Interior Planner
- Audio-Visual Specialist
- Cartographer
- Journalist
- Genealogist
- Horticulturist
- Athletic Coach
- Psychologist

"I've heard a lot about personal computers, and I knew I needed one to become more productive. It's just difficult to get started when there's so much to learn about how to use one. I needed a personal computer that spoke my language."



The Macintosh solution:

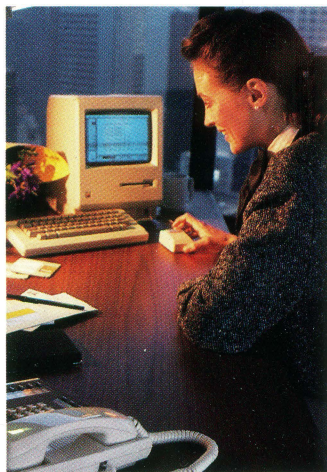
- Less time to get started because of Lisa Technology
- Easy to set up
- Pull-down menus with consistent command structures between applications
- Friendly, helpful documentation

Macintosh Prospects

It's easy to spot the perfect Macintosh prospects. They're the ones who work at a desk.

And they're looking for a new kind of personal productivity tool. One that takes over their deskwork — not their desk. And one that fits into their workstyle. These are the people who could use a Macintosh.

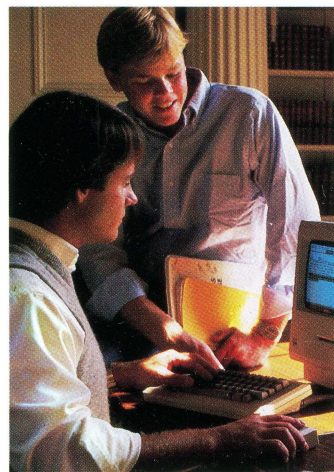
"Being a successful consultant is a 24-hour-a-day job. I didn't want to spend the 20-40 hours it used to take to learn how to use a computer. On top of that, every new application meant additional time and confusion. I needed to be a lot more productive in my work without engaging in a complicated and time-consuming process."



The Macintosh solution:

- Easily productive in a short amount of time
- Mouse-controlled functions eliminate the need for confusing keyboard commands
- Common operations throughout all applications with consistent pull-down menus
- Increased productivity through the use of personal productivity software tools

"I'm working on my thesis, so I'm constantly running between my lab, my classrooms, and the library. I'd lug all my notes home to where my typewriter is — and my file cabinets and drawing supplies. I always wished I could carry my desk with me!"



The Macintosh solution:

- Easy to carry (weighs less than 20 pounds; 10" x 10" footprint)
- Complete system in one unit
- Convenient, soft carrying case available
- 400K of built-in disk storage

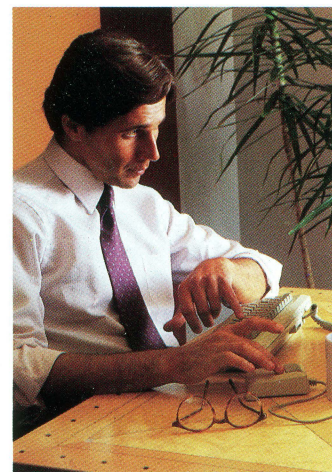
"It used to take days for my reports to be designed, typed, laid out, and corrected before they were ready, even for our own department's internal use. I needed a way to increase our office productivity quickly and easily, but without a major investment."



The Macintosh solution:

- Cut and paste charts and graphs into text
- Detailed graphics and text presentations
- Use a variety of font types, styles, and sizes
- Productivity solutions at an affordable price

"I make the decisions for my own business. I can't afford to make risky investments. I had to be sure the personal computer I bought could do what I need — now and in the future. It had to be dependable, and backed up with good support in case I needed any help."



The Macintosh solution:

- Quickly becoming the new industry standard
- Top-quality software and high-quality/low-cost accessories
- Low-cost AppleCareSM Carry-In Service Program
- 3400 authorized Apple dealers worldwide

Know How to Respond to Questions Your Customers May Ask

As customers gain greater awareness of Macintosh, they'll ask more and more questions. There'll be various "How does it do that?" or "Can it do this?" questions. Here are some of the questions you can anticipate, with suggested responses:

Expandable?

Macintosh comes complete, without the need for expansion slots or expensive cards. The video display and disk drive are built in. There are two high-speed AppleBus/serial ports to attach peripherals such as modems and printers, or to use as a link to other computers; a dedicated port to add a second drive; and an audio port for sound output. All of this eliminates the need for costly expansion cards. And the flexibility of Macintosh's operating system allows developers to expand Macintosh's capabilities.

Limited Memory?

Macintosh has a standard 192K, and it uses this memory in a much more efficient way than other systems. For example, a substantial portion of the operating system and key routines are packed into 64K of ROM. This leaves 128K of RAM free to handle the programs and data, giving increased speed and flexibility.

And should your customers require additional memory in the future, Macintosh is designed so it can be upgraded to 512K RAM at a reasonable price once 256K memory chips become commercially available in large quantities.

Limited Software?

Apple is strongly committed to providing an abundance of software for Macintosh from third-party developers. Months prior to the introduction of Macintosh, over 100 leading software developers began creating personal productivity software designed to take advantage of Macintosh's power and flexibility. And that's just the beginning. Never before has the introduction of a personal computer received this kind of commitment.

Communications Capability?

By using MacTerminal with either of the Apple modems, your customers can emulate the popular VT100, VT52, and TTY terminals. And, by using MacTerminal with the AppleLine coax adaptor unit, your customers can communicate with IBM® mainframes by emulating a 3278 terminal.

Product Family Compatibility?

Is Macintosh compatible with other Apple computers? Yes. Macintosh is part of Apple's 32-bit product family, which began with the introduction of Lisa. Most Macintosh software will run on Lisa directly from 3 1/2-inch Macintosh disks.



The Apple Product Family and Your Buyers

Your customers who are looking for ways to be more productive can have the Apple of their choice. But how do you recognize which Apple best fits each of your customers?

Here's a table that can help you. It presents the relative strengths of each Apple system and, for each Apple system, a typical qualifying statement from a prospective buyer.

Apple System

Strengths Relative to Other Apple Systems

Apple IIe

- An industry standard
- Most software
- Lowest price

Apple III

- Specialized business and productivity software
- Large-capacity memory and hard disk

Macintosh

- Lisa Technology
- 32-bit architecture
- Strong third-party software support
- Transportable

Lisa

- Lisa Technology
- Largest capacity of any Apple computer
- Multi-tasking capability

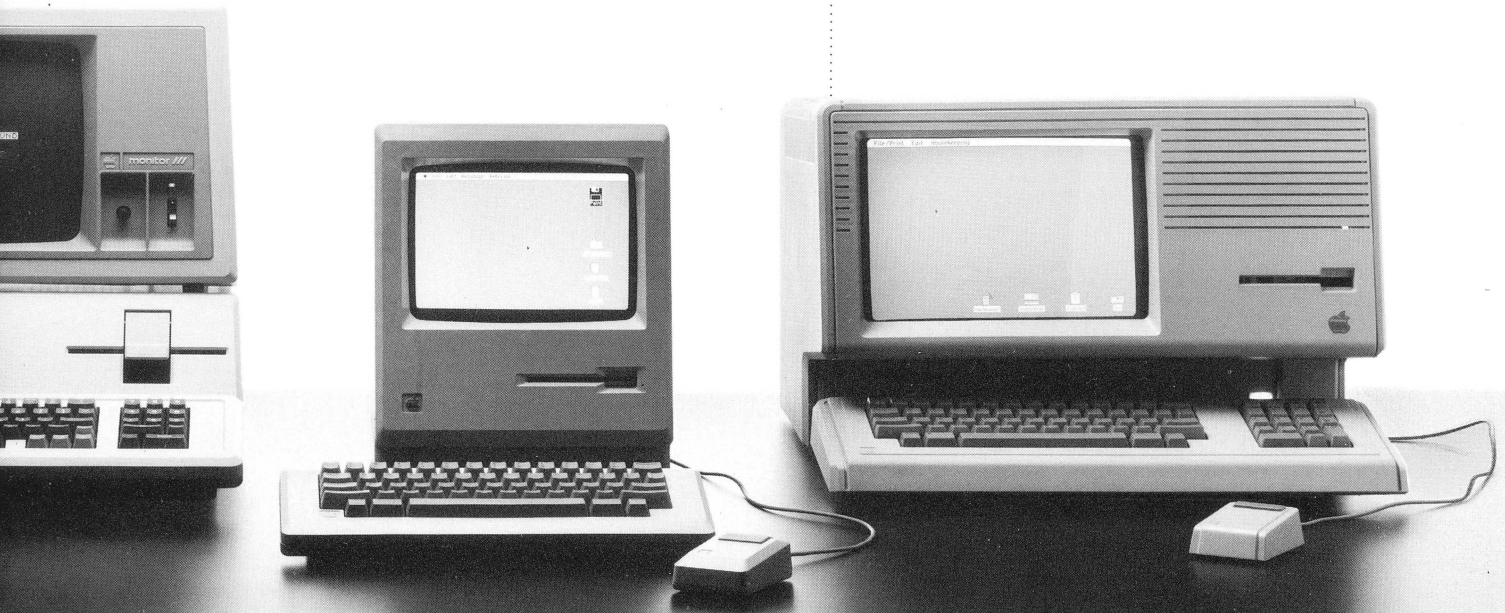
Typical Qualifying Statement by a Prospective Buyer

"I'm looking for a reliable, proven computer that gives me lots of software choices, no matter how unique my needs are. And it has to fit my budget."

"I'm looking for a computer that can handle my large accounting needs, and other applications that are common to my special type of business."

"I'm looking for a computer that is powerful and will fit into my workstyle. It should be easy to learn and use, with software and support from leading third-party developers, and at an affordable price. I want to take it where my work takes me, and set it up fast!"

"I work with many different types of documents simultaneously. I need a computer that gives me this flexibility, but is easy to use. It has to have the power and storage capacity to work with large reports containing detailed analyses and graphical presentations."



Successful Sales Begin With You, Your Customer, And Macintosh

Preparing You For A Macintosh Success

Training

Apple has created a comprehensive one-day sales workshop that will show you not only how to use a Macintosh computer, but also how best to demonstrate and sell it. From hands-on to closing the sale, the Macintosh Sales Workshop is designed to help you share in the success of Macintosh.

Own-A-Mac

Those who sell Macintosh should own a Macintosh. Apple knows that you're the most important part of the Macintosh team, and we want to make you a Macintosh expert. So here's your opportunity to buy a Macintosh system at an incredibly low price. Upon completion of the Macintosh Sales Workshop, you'll be eligible to participate in the Own-A-Mac program. You can even apply for the Apple Credit Card* to help you with your purchase!

You will find additional information on the Own-A-Mac program in the back pocket of this guide, or ask your Apple Sales Representative.

*Available in U.S. only.

Demonstration Aids

To make sure you can get the most out of your demos, Apple has developed helpful tools and sample demonstrations. By preparing yourself with these tools, you'll find that demonstrating solutions has never been easier.

"Selling Macintosh" Videotape

Designed especially for you, this informative videotape shows you sales situations and gives you valuable information about Macintosh. "Selling Macintosh" reinforces what you learned in the Macintosh Sales Workshop, and is a great refresher when you want to brush up on your sales techniques.

Apple Is Bringing the Customer to You

TV and Print Advertising

The introduction of Macintosh will be accompanied by the strongest advertising campaign in Apple's history. Top quality television commercials will be shown during major sports broadcasts, network newscasts, prime time entertainment shows, and the Winter and Summer Olympics. In addition to advertising in local and national newspapers, attractive multipage inserts will appear in major business and news magazines. And all this advertising is focused on getting customers into your dealership.

Feature Articles

Many of the prominent computer and business magazines will be featuring Macintosh in articles that are sure to capture the public's interest. These articles will include in-depth product analyses, the history behind Macintosh, and interviews with those people who are making Macintosh the next industry standard.

Special Publications

In addition to the various books that are currently being written about Macintosh, a new computer magazine, *Macworld*, will be introduced with the product. Published by the producers of *PC WORLD*, this magazine will keep you and your customers up to date on the latest developments and products for Macintosh. At introduction, all Macintosh buyers will be offered two free issues.

You will find additional information on Macintosh's advertising and promotion in the back pocket of this guide.

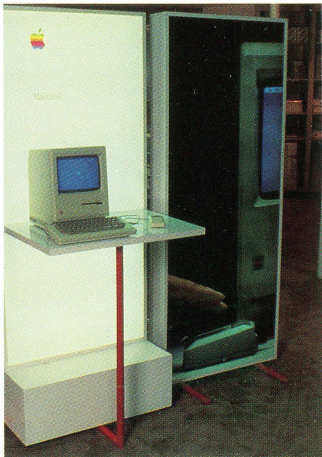


Your Keys To Successful Sales

Apple DemoStation

Turning customers into Macintosh owners starts with the Apple DemoStation, a high-impact display featuring a Macintosh system surrounded by illuminated, eye-catching graphics.

Included with the DemoStation is an interactive program that turns your display Macintosh into an electronic sales brochure. When new customers walk into your store, they can quickly get an overview of what Macintosh is, how it's different, and what kinds of applications they might use Macintosh for. And they'll get a chance to play with Macintosh themselves.



Consumer Literature

The Macintosh product brochure is a high-quality booklet describing the key features and benefits of Macintosh. It's perfect for use on sales calls and to give to serious prospects who are still looking for additional information. The Macintosh take-one flyer is ideal for summarizing Macintosh's strongest features to interested prospects, and for direct mail campaigns.

Apple Credit Card*

The Apple Credit Card has become one of the most successful consumer finance programs in the industry. Great as a closing tool, the Apple Credit Card is ideal for those customers who realize the benefits of low monthly payments. By simply completing an application, your customers can often receive credit approval in less than 20 minutes.

"Macintosh Story" Videotape

A 15-minute, colorful presentation of Macintosh, the "Macintosh Story" is an exciting videotape describing why we built Macintosh and how we did it. You'll be amazed at the many ways you can use this videotape: sales presentations, seminars, training classes, trade shows, and more.

*Available in U.S. only.



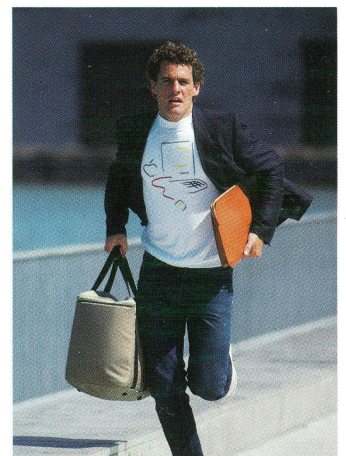
Service and Support

Apple is continuing its tradition of providing the best in service for its products. Macintosh will be backed with the same excellent service and support you've come to expect from Apple products.

Servicing Macintosh is almost as easy as setting it up. Since Macintosh features a modular design, most repairs can be handled quickly in your dealership. And to ensure the satisfaction of your customers, you'll want to be sure to include the low-cost AppleCare Carry-In Service Plan in every sale.

Promotional/Merchandising Items

Apple is providing plenty of ways for your dealership to announce Macintosh to your customers. Colorful, eye-catching posters and a banner will be supported with a counter card. There are even Macintosh T-shirts.



The 4 Top Selling Points for Macintosh

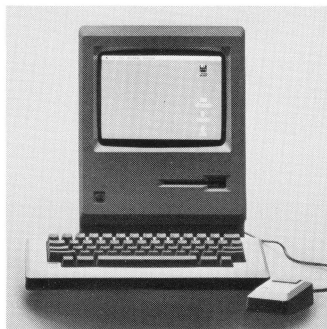
Since Macintosh is the third major industry standard, it's only natural to compare it to the second standard, the IBM PC.

In discussing Macintosh with your customers, if you don't remember anything else about Macintosh, you can use these four points that set the standard:

Macintosh Selling Point

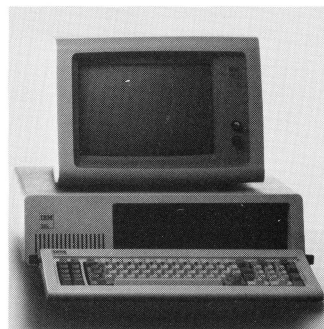
Apple

Our Benefits



IBM

How They Compare



1. Lisa Technology

Easy to learn and easy to use, with *consistent* pull-down menus, a mouse for pointing to and selecting options, and cut-and-paste integration among different applications.

With the IBM PC, attempts to re-create Lisa Technology through software/hardware combinations, using such products as Visi On™, require your customers to make an investment equal to the cost of two or three Macintosh systems.

2. 32-Bit Architecture

Provides the "computer power" necessary to get Lisa Technology benefits. Only 32-bit architecture offers the performance, speed, and high-resolution graphics that Lisa Technology requires.

A 16-bit processor with an 8-bit bus does not provide enough computing power and speed to support the fast, high-resolution graphics that are central to Lisa Technology.

3. Superior Software

The leading software developers have and are creating personal productivity applications — making Macintosh the new industry standard. And best of all, software from different developers will feature the same consistent user interface, with cut and paste integration between applications.

The IBM PC and the software written for it offer no common user interface and no cut-and-paste integration among software products from different software developers.

4. All In One Box

Macintosh comes COMPLETE, in one small, transportable unit. It's easy to fit onto your desk and into your life. You simply take it out of its box, plug it in, and use it; there's no maze of cords and hookup wires to contend with.

The IBM PC by itself is not a complete system. It requires a number of add-on components to make it functional. It takes up three times as much space on your desk as Macintosh. Then there's the task of connecting all the components each time you move it.





Here's How to Own-A-Mac.

While some companies have been working to make their first personal computer, we've been working to make a better one. Macintosh is Apple's newest computer, with advanced 32-bit Lisa Technology at a terrific price. We know that once you use a Macintosh, you'll be its biggest fan—it's that great! That's why we're offering you a special program—the opportunity to *buy a Macintosh computer for only \$750.00! And Apple's amazing new Imagewriter printer for only \$249.00.* For transportability, the Macintosh Carrying Case for only \$55. To start you off right, you'll receive *three free software applications* with Macintosh: MacWrite and MacPaint from Apple and Multiplan™ from Microsoft. As an added bonus, you'll receive a quarterly newsletter for one year with valuable software and hardware coupons, and the latest Macintosh news. We're glad you're part of the Macintosh Team!

Macintosh™

Q U A L I F I C A T I O N S

You are eligible to purchase one Macintosh under the Own-A-Mac program if:

- you are a full-time Dealer Salesperson who has been employed at least 60 days in an authorized Apple dealership, or you are a full-time Sales Manager in an authorized Apple dealership, and spend at least 50% of your time *selling* computer products; and
- you have completed the one-day Macintosh Sales Workshop.

P R O C E D U R E S

Length of Program

The Own-A-Mac program begins February 1, 1984 and ends May 31, 1984. No orders will be accepted by Support Centers postmarked after May 31, 1984.

What You Get

You may purchase any of the following products. You must purchase the Macintosh Personal Computer to be eligible to purchase the Imagewriter or Carrying Case.

Macintosh Personal Computer*	750.00
Apple Imagewriter and Macintosh Accessory Kit	249.00
Macintosh Carrying Case	55.00

*With the Macintosh Personal Computer, you will receive *three free software programs*: MacWrite and MacPaint from Apple and Multiplan from Microsoft.

Ordering

Own-A-Mac Order Forms and Apple Credit Plan Applications will be available through your Apple Sales Representative after you have completed the Macintosh Sales Workshop. You may only submit one Order Form during the life of the program. You must fill in the Order Form *completely*, have it signed by your Dealer Principal, and send it to your Apple Sales Representative in the envelope provided.

Cash Payment

You may pay for your Macintosh products with a certified check, cashier's check or money order payable to "Apple Computer, Inc." Your check should be attached to the Order Form. NO PERSONAL CHECKS will be accepted.

Credit Payment (Available in U.S. only)

You may apply for 100% financing under the Apple Credit Plan. There is *no downpayment* required. If you have an Apple Credit Card, write your credit card account number in the shaded space provided at the bottom of the Order Form. Send the Order Form with your credit card account number to your Apple Sales Representative. If you do *not* have an Apple Credit Card, fill out the Apple Credit Plan Application *completely*. Then, attach it to your Order Form and send them together to your Apple Sales Representative. All credit applicants under this program will be subject to the same credit qualifications as any applicant and all applicable state laws on credit limitations.

Delivery

Your Macintosh products will be delivered to the address *you* indicate on the Order Form. Units will be delivered on a *first come, first serve basis*. You will be notified in writing of the approximate delivery date of your Macintosh products.

Receipt

The packing slip you receive with your delivery will be your sales receipt.

Not for Resale

Macintosh products purchased under the Own-A-Mac program are not for resale for a minimum of one year.



Introduction Media Schedule.

January 19–April 31

Note:

Dates and media are subject to change without notice.

Magazine dates shown are cover dates. Magazines may be distributed earlier.

Specific computer magazine insertion dates to be determined.

Macintosh™

Tease

Wall Street Journal
(January 19)
1 Page

Introduction

Wall Street Journal
(January 25)
3 Pages

Winter Olympics TV
(February 6–19)
Network 30's

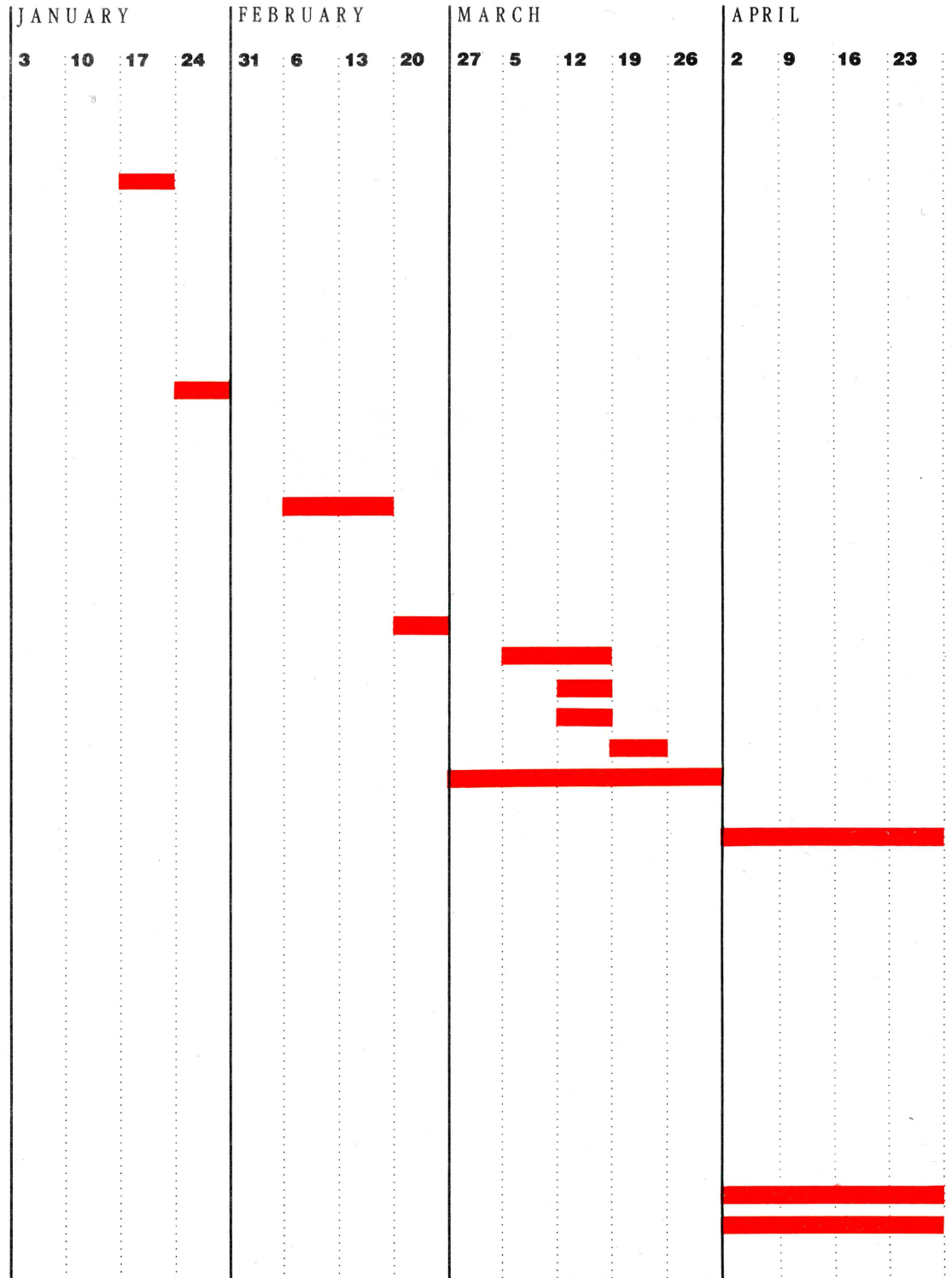
20-Page Magazine Insert
Time (February 20)
Fortune (March 5)
Forbes (March 12)
Business Week (March 12)
Newsweek (March 19)
Inc. (March)

Computer Magazines

A +
Macworld
Byte
InCider
Info-World
Computer Electronics
Creative Computing
Personal Software
Personal Computing

Sustaining

Network/TV/Print
Regional Co-op (TBD)



Macintosh Questions and Answers

As the Macintosh personal computer is introduced into the marketplace, it is assumed that there will be many questions concerning this new and exciting product. The following information reference has been prepared in a question and answer format to better help you understand the product and answer some of those questions that will arise. It has also been divided into different categories to help you locate specific points of question. Remember that some of this information will change and be updated in the future.

PROCESSOR

Why did Apple choose the Motorola 68000 chip as the Macintosh microprocessor rather than other well known chips such as 8086 or 8088 processors?

Macintosh is a member of Apple's 32-bit family of personal computers. 16-bit processors such as those mentioned are not powerful enough to provide the speed, integration, and graphics necessary to run Lisa Technology. Additionally, the Motorola 68000 makes Macintosh software compatible with Lisa.

Where does Macintosh get it's amazing speed?

First, Macintosh uses the 68000 microprocessor running at 8Mhz, along with 64K of ROM. This provides the power and speed needed to run Lisa Technology efficiently. Second, both the Macintosh hardware and software concepts were designed together so they work well together, taking FULL advantage of the system. Because of all that, what you see is extraordinary performance from a personal computer!

STORAGE

Why was the 3 1/2-inch drive selected for Macintosh?

The small disks have a number of benefits. First, these disks represent both state-of-the-art design and the future direction of disk technology. Second, these single-sided disks can hold up to 400K of data which offer a high degree of reliability. Finally, the disks are not only encased in hard plastic, making them extremely durable, but they are small in size. They will even fit in a shirt pocket!

Can standard Sony 3 1/2-inch disks be used on Macintosh?

Yes. While Apple is a convenient source for these disks, other companies do provide standard Sony 3 1/2-inch disks that can be used on Macintosh.

Does Macintosh support the Profile or other mass storage devices?

Yes, it is possible to attach a hard disk to Macintosh through one of the AppleBus/serial ports. Apple Computer currently does not offer a hard disk drive for Macintosh. However, in keeping with the open architecture structure of Macintosh hardware and software, several third-party developers have been working on such a solution, and we may see such a product announced by Spring, 1984.

SCREEN

What is a bit-mapped screen?

Bit-mapping means that every dot on the screen has a bit in memory. This provides Macintosh with its incredible graphics performance as it "maps" and manipulates each of the more than 175,000 pixels on the screen. For example, when you move a document icon or window to another location on the screen, it is "mapped" at its new location. Such resolution and detailed graphics establish a new standard of excellence in computer performance.

Why was a 9-inch screen chosen as part of the system?

In order to maintain the compact size, affordability, and transportability of the Macintosh system, a 9-inch screen was selected. Due to the high-resolution and crisp appearance of the screen, as well as the flexibility of graphics and varieties of text sizes, the readability of the Macintosh compares favorably with much larger screens. Through the use of sizeable windows and scroll bars, large documents can be made visible without the higher cost of a larger screen.

Will Macintosh have a color screen in the future?

Our design goal is to provide high-resolution bit-mapped graphics in an affordable system. The incorporation of a high-quality color display would have increased the cost of Macintosh to more than twice the current price. And it would be even more expensive to produce a color monitor that displays black & white images well.

However, since Macintosh's built-in graphics will support color output, and Macintosh has an open architecture, we would expect to see the availability of color output devices (such as color plotters and printers) in the future.

KEYBOARD

Can four direction cursor control keys be used with Macintosh?

Yes. The numeric keypad has four field motion (direction) cursor keys which can be used in conjunction with the appropriate software that recognizes these keys. However, most programs don't require them because the mouse provides much more flexibility and ease of use than cursor control keys.

Why was a 10-key pad not included on the keyboard?

Not every user will need a 10-key pad. Therefore, no additional desk space is taken up (or additional expense). Additionally, many users wish to place the keypad in a position where it is most comfortable for numeric entry.

Are there any other characters available for text entry besides the standard alphabet that appears on the keyboard?

Yes. Because of the versatility of Macintosh and the sophisticated software in ROM, many unique symbols are available to the user directly from any keyboard. These include foreign language characters and scientific symbols, as well as special text notations such as TM, R, P, etc. These can be made visible on the screen by the use of the "Key Caps" Desk Accessory. In addition, the keys can be "re-mapped" for any application.

MOUSE

Is there any advantage to Macintosh's one-button mouse?

A considerable amount of the research and development of Lisa Technology centered on developing a user interface that was as simple as possible. Much of this research involved the design of the mouse. It had to emulate the way people work, such as pointing and selecting. With the one-button mouse there is no need to remember which buttons to push in which instance. Other mouse interfaces can require, for example, that the user learn to push one button at the start of a task, and another at the completion. Having two or more buttons on the mouse forces you to think "which one" every time you use it.

Am I limited to the type of surface I can use the mouse on?

No. Unlike many other types of mouse devices, the Macintosh mouse (as with all other Apple mouse devices) can be used on any hard surface. This achievement is due to the research and testing as one of the original mouse design goals. The use of a rubber ball also adds to its reliability.

How long will the mouse last?

Under normal conditions, the mouse can "travel" literally hundreds of miles before it will require any maintenance. Should it require attention, normally all that's needed is a cleaning of the rubber ball.

MEMORY

Why does Macintosh have 64K of ROM?

The 64K ROM contains most of the key operating routines of Lisa Technology. This has four major benefits; 1) It allows each software program to have less operating overhead by retrieving less of the operating system from disk. And the code in ROM executes 25% faster than code in RAM, which means faster loading of programs. 2) There are less operating routines in RAM allowing for more memory space for data. The ROM also houses the built-in diagnostics. 3) The ROM houses the built-in Lisa Technology for consistent interface between applications. 4) All of this makes application development much easier.

What specific advantages does the Macintosh ROM memory provide to programmers?

The ROM memory is developed in a way that makes it much easier for programming of applications, and ensures a level of consistency with the software applications developed. Macintosh has over 460 entry points into ROM. These entry points are used by software developers to let their applications take advantage of the benefits of Lisa Technology, such as windows, pull-down menus, cut & paste integration, etc. And with many of the key operating routines residing in ROM, developers don't have to rewrite many of the routines, making it easier and faster to get software up and running because of that decreased development time.

Why does Macintosh only have 128K RAM?

It isn't fair to compare strictly on the amount of RAM. Macintosh's 64K ROM contributes significantly to the capabilities of the system, making its total memory 192K by comparison.

With Macintosh, the ROM memory is completely hand-coded, containing much of the information and user interface that is normally located in RAM memory on other personal computers. This allows more space in RAM memory for the application and files. Current applications have been optimized to run on Macintosh's 192K memory.

Will Macintosh be able to accomodate RAM memory upgrades in the future?

Yes. The Macintosh digital board has been designed to accept 256K chips as soon as these chips become commercially available in large quantities and at a reasonable cost. This upgrade to 512K RAM will be available through dealer service, most likely by late 1984. The cost to the customer of such an upgrade has not been determined.

PRINTING

Does Macintosh support the daisy wheel printer? What about a plotter, color printers, etc.?

The Apple Imagewriter printer generates images at resolutions up to 160 x 144 dots per inch through unique Macintosh printing software. The print quality is approximately 3 times better than on conventional printers, and easily rivals print quality on printers costing more than four times as much. In addition, the Imagewriter prints both text and graphics with equal speed and ease. The Macintosh design goal of "what you see on the screen is what you get on the paper" can be achieved in a very cost effective way by the use of the Imagewriter.

For those users who are preparing documents where "letter-quality", color, or other types of output are the highest priority, the Macintosh printing software was written to accept print drivers that allow the user to install other printers easily. We expect to see a number of printer drivers and output devices introduced by third-party developers in the future.

BACK PANEL OF MAC

What are AppleBus/serial ports?

The two AppleBus/serial ports (RS232-C\RS422) located on the back of Macintosh are high-speed serial ports that provide a direct connection for products like the Imagewriter printer or the Apple Modem. They also serve as the connection to AppleBus, Apple's solution to local networking environments. In fact, the hardware necessary for connection to AppleBus, is already built into every Macintosh and Lisa.

RS232-C/RS422 refers to both ports. RS232-C means that the ports can be used either as a standard serial connection or an RS422 connection for AppleBus, providing high-speed data transfer and interconnect to networked devices.

Why are there no parallel ports on Macintosh?

The trend in peripherals is towards much more intelligent devices which connect over serial links. Therefore, Macintosh has the two high-performance serial ports. However, it should be possible for a third-party developer to build a low-cost Applebus peripheral that will allow the use of parallel devices.

Explain the polyphonic audio capabilities.

Some of Macintosh's audio capabilities are already demonstrated in existing Macintosh applications. Macintosh is capable of multiple-voice sound. What this means is that in future developments, both from Apple and from other developers, advanced audio features and speech synthesis will become an integral part of Macintosh's features as the hardware is already built into every Macintosh.

In technical terms, Macintosh uses an 8-bit digital-analog converter with 22KHz sampling rate, 4 simultaneous voices with 24-bit pitch resolution, and user defineable waveforms.

What is the "programmers switch"?

The programmer's switch allows the user to "reset" or "cold boot" the system without actually turning off the power supply. It provides an added convenience, particularly for programmers who need to perform this task frequently. In addition, it contains a programmer's NMI switch (non-mistake interrupt) which can be used to invoke the debugger.

Can I plug in other monitors (i.e. Conrac, Electrohome projectors, large screen, etc.)?

Apple and third party vendors are currently looking into the development of a large screen that can attach to Macintosh. We will provide further details on this in the future.

EXPANSION

Why are there no expansion slots in Macintosh?

Macintosh comes complete with a built-in display, built-in disk drive, built-in serial ports, and built-in speech and sound hardware. Most peripherals that "complete" other personal computers have already been built into Macintosh.

In addition, Macintosh has dedicated ports for an external drive, mouse, and audio output. Peripherals such as printers and modems plug directly into 2 high-speed AppleBus/serial RS232-C/RS422 ports. Most other personal computers require costly expansion cards to attach these devices, whereas Macintosh does not.

In addition to hardware expansion, we expect most expansion of Macintosh will be done through software applications making extensive use of the ROM routines.

SOFTWARE

Are all software packages integrated with each other?

A discussion of integration of applications on Macintosh involves two things. First, you can currently cut & paste between applications where it makes sense; for example, between MacPaint and MacWrite.

Secondly, much of the software for Macintosh comes from third party developers. By following the standard protocol using the routines in the ROM memory, these developers can create integrated applications that will work with packages from other developers.

What other software packages can we expect to see from Apple in the near future?

Please see the listing of Apple software in the Selling Guide. This is a compilation of application programs that are currently scheduled within the next 6 months. While Apple will continue to provide some key productivity software packages, languages, and communications software, the majority of the software will come from third-party developers.

Are there any developers writing games for Macintosh?

While Macintosh is not directed at the home computer market, we anticipate that, due to the incredible graphics performance, there will be some outstanding games and entertainment programs developed for Macintosh. The list of developers in the Macintosh Selling Guide includes premier developers of games.

How does Macintosh compare to other mouse and window products like Windows (c Microsoft) and VisiOn (c VisiCorp)?

All products that are based upon the use of a mouse and windows seem to have many things in common. Closer inspection shows that there are many differences. The most basic difference is the integration with the personal computer itself. Macintosh was designed from the beginning to maximize the capabilities of Lisa Technology. The whole environment of Macintosh is this technology.

- o The user interface is built into the ROM memory providing consistent and familiar commands, and cut & paste integration between applications -- from any developer.
- o Built-in graphics and bit-mapped display technology provide better resolution and a wider variety of crisp, sharp images, both in text and graphics.
- o The 32-bit architecture of Macintosh provides powerful, high-speed performance that is more responsive to the user, without the need to wait long periods of time for the computer to perform a command.
- o Macintosh provides these advantages at a price that is often less than half the cost of a personal computer configured with the power, memory, storage, necessary to accommodate these "window-oriented" software packages.

Is it possible to "write protect" a Macintosh disk?

While making backup copies of important information is always a good idea, disks can be protected by using the plastic protect tab on the disk.

The "Guided Tour" of Macintosh is great. How is it done? Is there a way I can create my own program to do this type of thing for training and seminars?

The method of capturing actions on the screen for playback is called Journalling. Apple is currently looking into the possibility of making this as a separate software package to be available sometime in the future.

What is the Finder?

The Finder is the software application that lets the user manage files in the system and on disks. It is the Finder that allows you to store documents inside of folders, cut and paste information from one file to another, and other "housekeeping" functions such as copying files.

What is the advantage of the Finder over conventional file management systems?

The Finder eliminates the need for complex or cryptic commands and pathnames when storing or retrieving information. Icons appear as documents, folders, or disks with titles appearing next to them. To access a document, you need only to select the appropriate icon and open it. And when a document is saved, it reverts back to an icon and is stored in its original location. Therefore, users are able to organize files any way they choose.

What are Desk Accessories?

Desk Accessories are functional tools (clock, calculator, notepad, etc.) that are "mini-applications" that run concurrently with any application program. Desk Accessories are "open-ended" which means Apple and third-party developers can offer additional ones in the future.

What is the Clock?

The Clock is a desktop accessory included in the Finder that upon demand, can display the time and date. (Macintosh will also time-stamp files.) A built-in battery allows the Clock/Calendar to remain set even when the system is unplugged. The battery lasts for approximately up to one year.

Why is a Calculator included in the Desk Accessories?

The Calculator is similar to the hand held calculator you frequently use. Many times while working on a particular file, users will need to make a quick computation. The Calculator can be instantly accessed for this purpose. And the results can be cut & pasted into the application.

What are the Notepad, Clipboard, and Scrapbook. What is the difference between them?

The Notepad is an 8-page scratch pad that permits the user to enter text from the keyboard, or cut and paste to or from a document. Think of it as a note pad on your desk. It is ideal for making notes to yourself while doing something else. It deals only in text.

The Clipboard, as with Lisa, allows a user to cut or copy information from a document to the Clipboard, and paste it into another document (elsewhere in the same document). Unlike the Scrapbook (see below), it will only handle a single item at a time.

The Scrapbook is a Desk Accessory into which a user can paste many different types of data (either text or graphics) for later inclusion into other documents (through pasting). While the Clipboard is designed to accept only a single item of data (the last data cut or copied), the Scrapbook permits as much information to be included as there is space on the diskette. Once in the Scrapbook, the user can page through it to select what is needed to place into another document. Without the Scrapbook, the user would be required to individually cut & paste each item needed -- one at a time.

Is Macintosh limited to one window?

No. Software applications may be written to accommodate multiple windows. The only limitation to the number of windows is memory size. Of course, there is a screen-size limitation in that only a certain number can be individually displayed without having the screen become very cluttered. Windows can be moved or stacked (one over another) as well as displayed side-by-side.

Explain the difference between MacPaint and MacDraw.

MacPaint, as its title might indicate, is a graphics design package that works similar to the way you would use ink on paper. It provides flexibility and versatility in creating virtually anything, with an uncanny ability to focus on detail. Once an image is created on the screen, it paints right over anything that was originally there. (Should you select to move the drawing, a blank space is left in its place.)

MacDraw is a more structured, or "object-oriented" application, and does not have the detail or expressiveness of MacPaint. Like LisaDraw, MacDraw works with the structure (or geometric shape) of each object, so any "selected" object or group of objects can be moved, sent to the back, sent to the front, etc. MacPaint has the ability to move things on the screen, but only as defined by the selection box or lasso.

COMPATIBILITY

It is stated in the Macintosh Selling Guide that Macintosh is compatible with Lisa. How does this work?

Most of the software developed for Macintosh will run on Lisa. Since the new Lisa 2 family uses the same 3 1/2-inch disk drive as Macintosh, by calling on the MacWindow function, Lisa will boot software and bring files directly from the Macintosh disk. (The existing install base of Lisas can be upgraded to accommodate these 3 1/2-inch drives.) More information on this will be provided in the near future.

Is there compatibility with the Apple // or Apple /// families?

Because of the substantial differences in technology and internal architectures, there is no compatibility between Macintosh (a 68000 product) and either the Apple // or Apple /// families (6502 products). However, ASCII file compatibility can be achieved through communications or through the future networking of products and product families.

Will Macintosh support other operating systems such as MS DOS, Xenix, or CP/M?

There are no plans to provide other operating systems for Macintosh. The Macintosh operating system has been optimized to take advantage of the Macintosh hardware. Other operating systems are not designed to benefit from Macintosh's capabilities.

Will there be a Pascal workshop for Macintosh?

While Macintosh Pascal will permit Pascal development on Macintosh, it is better used as a teaching tool for this development and is not suitable for large programs. However, Lisa's development environment does provide full Pascal development for Macintosh. Apple is investigating other Pascal development systems.

Will there be other languages available like Fortran or Cobol?

Apple has no current plans to offer languages for Macintosh other than Pascal, BASIC, Logo, and development tools for 68000 native code. Apple has chosen to encourage third-party developers to provide other languages.

When will the Macintosh Toolkit be available?

The Macintosh Toolkit is a series of three-ring binders called Inside Macintosh, that describes the Macintosh ROM routines. It is presently available directly from Apple Computer. Developers should contact the Developers Relations Group for further information. By summer, however, the Toolkit will also be available at retail locations. More information will be available in the near future.

COMMUNICATIONS

What data communications are available for Macintosh?

With the use of MacTerminal and the Apple Modem, Macintosh can communicate with electronic information services, other personal computers, and mainframes through TTY, VT100, and VT52 emulation. 3270 communications to IBM mainframes is also available the AppleLine coax adaptor unit.

Can I cut & paste information to/from MacTerminal?

Yes. MacTerminal takes advantage of both the windows and cut & paste capabilities. Text can be cut & pasted between MacTerminal and other applications.

What is AppleLine?

AppleLine is Apple's new 3270 coax adaptor unit. Macintosh users who require 3270 terminal emulation to IBM mainframes can use AppleLine to connect a Mac directly to their IBM 3271/74 controller.

companies do provide standard Sony 3 1/2-inch disks that can be used on Macintosh.

Will Macintosh work with the Apple Cluster Controller?

Yes, Macintosh can communicate in a 3270 environment using the Apple Cluster Controller. Macintosh will attach to the Apple Cluster Controller through the use of a standard DB-9 to DB-25 interface cable. To specify "terminal type" to the Apple Cluster Controller, simply select the "LisaTerminal" entry.

What is the difference between the AppleLine coax adaptor unit and the Apple Cluster Controller?

The Apple Cluster Controller is used in a remote type operation where the user is not located within the cable range of the mainframe. The AppleLine is used when the user is co-located with the IBM data communications equipment or when the user already has IBM controllers at his/her location.

Why did Apple choose not to release AppleNet? Will there be a network available for Macintosh?

Apple reviewed the current status of the network market and the current vendors and concluded that many of our customers were waiting for the "standard" to emerge. Without favoring one technology or another, we felt it was important to provide connection of our own devices in the short term and not "lock" ourselves into one interconnect strategy or another when a standard has yet to be established. AppleBus provides a much more neutral strategy that gives Apple the flexibility to select which gateways are required as the standards emerge.

What is AppleBus?

AppleBus is a very local peripheral sharing network. It utilizes hardware actually built into all Apple 32-bit products for network connection, thereby lowering the cost of the network. For the Apple //e, existing low cost (SchoolBus) network hardware can be used. The network can consist of up to sixteen nodes which can be personal computers, printer, communication, or file service devices, spread over a distance of 1000 feet.

When will AppleBus be available?

The introduction of AppleBus is in two parts. First, the specifics relating to protocols and software are currently available from Apple. This allows third-party developers to begin creating products to take advantage of AppleBus. AppleBus related hardware (such as cables, print servers, necessary software, etc.) will be announced in late 1984.

Yes. While Apple is a convenient source for these disks, other companies do provide standard Sony 3 1/2-inch disks that can be used on Macintosh.

Who will use AppleBus?

Typically, the user of a small office or local department type application who wants to interconnect one of the Apple 32-bit family products or connect their Apple // 's will be the primary user of AppleBus. The product offers a great deal of flexibility to the user (file services, printing, communications to the corporate installation) while providing a very low-cost data highway.

How much will AppleBus cost?

Since AppleBus hardware is already built into both Macintosh and Lisa, the hardware cost for the Apple 32-bit family is included in the products. For the Apple //e, the cost will be that of the SchoolBus interface card. The only other hardware cost for AppleBus is the cost of the cable and a small, inexpensive interface device. Software for all products will be an additional cost which will be announced at a later date.



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