

Update on Apple Macintosh and Lisa 2

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The Macintosh and Lisa 2 are out, although a few unpleasant surprises occurred between the deadline for my articles appearing in the February BYTE (pages 30 and 84, respectively) and Apple's formal announcement on January 24. In a word, the Macintosh (or Mac) is more expensive than we thought it would be. At one time, Apple had decided on a \$1995 price for the basic Macintosh, but the company changed this to \$2495. Other changes include: Imagewriter (reported at \$495), \$495 if bought with a Mac, \$595 otherwise; numeric keypad, \$129 (up from \$99); second disk drive, \$495 (up from \$395). Apple also announced a 300-bps (bits per second) modem for \$225 and a 1200-bps modem for \$495.

Apple has also formed the Apple University Consortium (AUC) to "further the use of computers in higher education" by making "commitments to supply large numbers of its new Macintosh personal computers to 24 leading universities," including Yale, Stanford, Dartmouth, Brown, and the University of Michigan. Apple requires member universities to create courseware and meet regularly together. Faculty and students will be able to buy Macintoshes at reduced rates; a source close to the University of Utah, an AUC member, said that the prices were \$1200 for students and \$900 for faculty.

Apple also announced three members of the Lisa 2 family: the Lisa 2, at \$3495; the Lisa 2/5, at \$4495; and

the Lisa 2/10, at \$5495. All units have 512K bytes of memory and one 3½-inch microfloppy-disk drive. The Lisa 2/5 adds an external 5-megabyte Profile hard disk, and the Lisa 2/10 adds an internal 10-megabyte hard disk. Lisa 1 owners can upgrade to a Lisa 2/5 for free until June 1, \$595 afterward, or to a Lisa 2/10 for \$2495. A 512K-byte memory upgrade is \$1495. The Macintosh operating system (needed for a Lisa computer to run Macintosh software) comes free with the Lisa 2 computer and is available at extra cost for buyers of the Lisa 2/5 and 2/10. Apple also announced Apple Bus, a low-cost local network that will allow Macintoshes, Lisas, and (later) Apple II-family computers to share common peripherals.

Commentary

Initial reaction to the Macintosh has been strongly, but not overpoweringly, favorable. A few traditional computer users see the mouse, the windows, and the desktop metaphor as silly, useless frills, and others are outraged at the lack of color graphics, but most users are impressed by the machine and its capabilities. Still, some people have expressed concern about the relatively small 128K-byte RAM (random-access read/write memory) size, the lack of any computer language sent as part of the basic unit, and the inconvenience of the single disk drive. Although Apple has said nothing officially, it is widely be-

lieved that Apple will offer a 512K-byte Macintosh upgrade by the end of 1984; since the Macintosh memory chips are soldered onto the printed-circuit board, this will not be a simple upgrade that most users will want to do at home. The Macintosh is largely a computer of unparalleled vision on Apple's part; however, that vision failed when the Mac was limited to 128K bytes of memory. It took no vision to see the need for a larger memory: much existing software (for the IBM PC, for example) already makes use of 256K- and 512K-byte memory spaces.

At the current prices, a usable system (Macintosh with one language, Mac Paint/Mac Write, Imagewriter printer, and second disk drive) will now cost \$3879 (\$100 less if you buy the Imagewriter with the system). This is considerably more than the \$2984 possible package price quoted in my February article. Marketing decisions have compromised Steve Jobs's vision of "something really inexpensive so that everyone can afford it." Also, the higher price will probably decrease the influence of the machine on the market; this may make the difference between the Macintosh being just another successful computer rather than being the computer that is popular enough to be a surviving alternative to the looming IBM monopoly. ■

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