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THE EXECUTIVE COMPUTER; Compaq Finally Makes a Laptop

By PETER H. LEWIS OCT. 23, 1988

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A battery-powered laptop computer was finally introduced last week by the Compaq Computer Corporation. For several years, while other companies were reaping millions of dollars in the emerging market, Compaq steadfastly refused to bring out a laptop, saying it would not be content with the compromises that existing technology would require. Only when a laptop could equal the performance of a desktop model, Compaq said, would it produce a laptop.

Now it has come up with the Compaq SLT/286, whose price starts at \$5,399. That is on the high end of laptops, which are more expensive than comparable desktop computers. While it is not a breakthrough, it has enough innovations to set it apart from competitors. Judged simply as a portable, it is very impressive. Even measured against comparable desktop computers, as Compaq would like it to be, the SLT/286 holds its own.

The machine offers a bright high-resolution display that supports the VGA video standard, the first laptop with that feature. It has a 12-megahertz 80C286 processor, a new low-power chip that is among the faster 80286 microprocessors, and it is certainly capable of handling most applications. And it has a detachable keyboard, another first among laptops.

Apple Ex. 1021

It is only 8 1/2 inches deep - 2 to 3 inches less than the other leading laptops - and that makes it better suited for working on airline trays. While it is nearly an inch taller than similar machines, that difference has little practical consequence.

The SLT/286 provides mass storage in the form of a 20-megabyte or 40-megabyte hard disk drive. The shock-mounted drive is a new design that can withstand up to 80 G's of impact, or a ride in the trunk of a New York City taxi, whichever comes first. Data is transferred through a high-capacity (1.44 megabyte) 3.5-inch diskette drive. An optional 2,400-baud internal modem is \$599. At 14 pounds, including the battery and the hard disk, the SLT/286 strains the definition of laptop. Still, it is five pounds lighter than Compaq's lunchpail-shaped Portable III, a significant difference among portables. Most important, it runs for three hours on one battery charge. An optional backup battery pack (\$129) weighs two pounds.

One drawback of the machine is that it does not support color, but then neither does any other laptop. (High-resolution flat-panel color displays will begin arriving next year.) Another surprise is that Compaq, which has forged its reputation for high-performance machines around the 80386 microprocessor from the Intel Corporation, did not introduce an SLT/386. While the 12-megahertz 80C286 is a better-than-average chip, it is no match for the 386 chip. Michael Swavely, Compaq's vice president for marketing, suggested in an interview that the power demands of the 386 chip had reduced the SLT's battery life to unacceptably short periods. The fast 286 chip, he said, offered the best balance of performance and battery life.

Mr. Swavely also said the SLT/286 would be in short supply until next year because of limited supplies of major components, especially the Japanese-made screen and the new memory chips it uses.

Despite those problems, the SLT/286 might be the machine that finally legitimizes the portable computer market. It would do so, oddly enough, by staying on the desktop most of the time. While most laptops are geared for the peripatetic executive who is always doing Lotus 1-2-3 recalculations at 30,000 feet, how many of those types do you see on your flights?

The Compaq appears aimed at the more realistic work style of the executive who spends most of the time at the desk, making occasional forays for business travel and occasionally needing to take work home or on vacation.

Thus, when it is deskbound, the SLT/286 is designed to nestle in an optional cradle (\$999) that contains slots for two expansion cards and extra ports for printers, a mouse or other peripheral devices. One slot might be used for a network card, which would allow the machine to be connected to other computers on a company's local area network system. Then, when portability is needed, the SLT/286 snaps out of its cradle.

The Compaq and other such laptops might also signal a different direction for personal computers. Such machines used to be personal; a PC on the desk at work gave an individual the power to do single tasks more efficiently. But PC's are less personal these days, the result of proliferating local area networks, work groups, the OS/2 operating system, Unix multi-user systems and other strategies that tie many computer users together. Portable computers restore some of the personal nature of PC's. The entire machine can be locked in the user's desk drawer at night, or it can follow the executive home and when a new employee signs on, the technical support staff can say, "Here, this is your computer." TRAVELERS' AID

When traveling with a laptop, users might carry a survival kit that includes aspirin, for headaches caused by squinting at a screen; analgesic balm for soothing sore muscles caused by shouldering an overweight carrying case; alligator clips for hot-wiring hotel-room telephone systems, and legal pads and pens for word processing when the laptop's battery unexpectedly dies at 30,000 feet.

To avoid the dreaded "low power" light when you are halfway between Cleveland and Albuquerque, an essential traveling companion is Battery Watch, by Traveling Software (206-483-8088). This \$40 program acts as a pop-up "gas gauge" to tell the user exactly how much time, in hours and minutes, is remaining on a battery charge. No more nasty surprises.

It also allows more efficient charging of the Nicad batteries that most laptops use. Nicads are notorious for developing "memory" - if you use the battery for an hour and then recharge it, it will poop out the next time you use it after just an hour, even though it may be rated for three hours of life.

Battery Watch has a "deep discharge" function that restores the battery to its full potential.

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