## In Focus

# Prepare yourself for the ominous talking computer

### By John C. Dvorak, IW Staff

In 1843 Heinrich Heine said, "The future smells of Russian leather." If he sniffed around today, he'd smell plastic-coated microprocessors instead.

Anyone attending this year's NCC (National Computer Conference) in Houston can easily spy a few clear-cut trends that will determine the state of microcomputers in the future. Multiple processors, high-performance 8bit machines and fancier output devices are all in the cards. But the most significant social trend, and the most ominous, might be the talking computer.

Multiple processors will be the solution to the lack-of-software problem for the new processors. With the cost of chips falling, it will be cheap and easy to add a small computer on a board (usually with dedicated mem-

### The talking computer will become a sexual substitute for the introverted loner.

ory) to most machines, just for the purpose of using old software. AT NCC, even the elaborate minicomputer system manufacturer Four-Phase has put Z80s and 64K into its terminals so they can act as desktop personal computers when they are not being used in mainframe environments.

New kinds of printers will replace fully formed character printers. These printers will use advanced technologies, such as ink-jet and LCD Xerography, that produce typeset-quality output at a low price. At this year's NCC (see overview article in this issue), most of the new dot-matrix printers shown had the ability to produce correspondence-quality output with their use of multiple-pass techniques.

Eight-bit technology will live on in the guise of high-performance sys-tems. Just as small four-cylinder engines didn't die out with the advent of the V-8 automobile, the eight-bit machine will endure, in the role of the functional workhorse. Sporting 12 MHz Z80s and 3-inch hard disks and selling for less than \$500 with extended memory capabilities, these will be the Italian sports cars of the computer business. Many will easily outperform clunky 16- and 32-bit machines

Digitized voice synthesizers will be everywhere in the future. Many of the disk files will be nothing more than verbal messages that are waiting to be output through the computer's speaker.

The grumpy boss can have the computer blurt messages such as "Get back to work, Jenkins!"—in his actual voice. This can be done under program control, so we can expect, eventually, to see a computer fire someone on the spot for a mistake.

The digitized voice is a copy of the actual speaker's voice, which has been fed into the computer with a micro-

phone. This is the way electronic mail will be handled in the future; with it, inflections and hidden meanings can be communicated.

The talking computer will become a sexual substitute for the introverted loner. These days, a dubious trend displayed in isolated publications has sexy-voiced women selling their services over the phone-for a VISA-card fee. Apparently, the service they offer is merely to talk dirty to some bored soul. Under program control, the future computer can make lewd comments. Many future X-rated games will have sultry-voiced tempters talking to

the players through the computer. As the technology improves, we'll

have everything talking to us. Coffee pots, cars, pencil sharpeners, stoves and watches will all have voices. Eventually, programs will be written to take digitized words and translate them for the universal translation machine. We'll speak into a box and out will come French or Serbo-Croatian or Plattdeutsch.

At some point, a spy will change the chips in some diplomat's translation machine, and for every compliment that goes in, an invective will come out. Then where will we be?



"Everybody's talking at me," as the song says. Soon everything will begin to chime in too as voice synthesizers make cars and appliances talk.

COMMODORE

DEALERS

DEALERS Expand your customer base by Strauding the vast range of CP/M software development and applications! Small Systems Engineering or wides everything you need to software development of the CP/M marketplace. Excellent dealer margins. Advertising and marketing support. CP/M software on commodore formats. Corvus products. Watch for innovative products from SSE to support your commodore Computer line.

# Commodore **Computers Bloom** with CP/Mº , Hard Disk and Multi-User **Capability**.

Now your Commodore can blossom into a full-blown CP/M-based or multi-user business system with the addition of one of these innovative peripherals. Your Commodore plus the SOFTBOX gives you a single-user CP/M system. Commodore plus HARDBOX puts Pet software on Corvus Disk Drives and multiplexing units.

### **RUN CP/M WITH SOFTBOX** ON FLOPPY AND HARD DISK.

Add SOFTBOX. The Z80-based computer which connects to your Commodore PET or CBM through the IEEE bus.

Now you have the ability to run any CP/M software or application, giving you a universe of computing capabilities you could only wish for until now

Simply by plugging the SMALL SYSTEMS SOFT-BOX into your Commodore Computer's IEEE-488 port and loading the CP/M disk, your computer will run under the world's most popular disk operating system. No internal connections or modifications to your computer are necessary

Applications packages designed to work with specific terminals (like Lear Siegler ADM3A, Televideo 912 or Hazeltine 1500) need no modification to work with your computer's screen, since the SOFTBOX allows your computer to emulate any of these devices.

Interfaces that come with your SOFTBOX let you add the Corvus Hard Disk and any RS-232C peripheral. You can run a printer, and even talk to another CP/M based system.

90-Day Warranty. Suggested retail \$895 Complete line of CP/M software available.



SMALL SYSTEMS ENGINEERING 222 B View Street Mountain View, CA 94041 (415) 964-8201 CP/M is a registered trademark of Digital Research.

© 1982 Small Systems Engineering Corp

### HARDBOX GIVES PET DOS MULTI-USER AND HARD DISK CAPABILITY.

The HardBox introduces your PET software to the world of high-capacity, high speed disk storage. It acts as an intelligent controller for up to four Corvus Winchester disk drives. Each Corvus drive can have a capacity of 6, 10 or 20 million bytes.

The HardBox is designed to be software-compatible with PET DOS version 1 or 2, so that it will work with existing programs. The HardBox is designed to appear to the PET as a fast, highcapacity floppy disk unit.

When used with the Corvus range of drives, the HardBox provides much more than just a hard disk interface. By using an 8-way multiplexing unit, up to eight PET users, each equipped with a Hard-Box, may simultaneously address the same hard disk. By using two levels of multiplexing, up to 64 users may be accommodated. The hard disk may be divided logically into user areas.

A comprehensive set of utility programs are provided with the hardbox for file transfer, hard disk configuration, mirror backup, system maintenance etc.

90-Day Warranty. Suggested retail \$695.

