# Breakpoints

## SOFTWARE MODULE SUPPORTS CP/M-86, MS-DOS

An as-yet-unnamed software module from Lifeboat Associates, New York, will allow programs that run under the control of Digital Research's CP/M-86 operating system to also work with Microsoft's MS-DOS 16-bit operating system (used on the IBM personal computer and the soon-to-be-announced Zenith Z-100). It will require no special patching to MS-DOS; it can simply be added to a system, eliminating the need for extra software. The module is priced at less than $200.

## ZGRASS UPGRADE TURNS GAME INTO BUSINESS GRAPHICS μC

Astrovision, Inc., the Ohio-based company that took over Bally's share of the video-game market, has announced an upgrade to its Astro Professional Arcade that allows the Z80-based video-game unit to be used to create complex, animated graphics. The add-on unit, called the ZGRASS-32, includes a typewriter-style keyboard, a Votrax speech synthesizer and a 32K ROM ZGRASS interpreter. ZGRASS developer Tom DeFanti says ZGRASS is the only μc language designed specifically for graphics. Astrovision expects the ZGRASS-32 to be used for business applications, user-developed animated games and video art. The unit attaches to the Astro Professional Arcade that retails for $299 and will be available in April for $599. The add-on unit can be expanded to run CP/M and has two RS232C ports and interfaces for a light pen, a graphics tablet, disk drives and joysticks.

## RANDOM DISK FILES

**Applied Magnetics Corp.**, which late last year announced that it intended to abandon a year-old plan to liquidate the company, is getting set to mass-produce 3370-compatible thin-film read/write heads—initially for the plug-compatible disk-drive market, with hardware aimed at OEM drive vendors to follow. Also under development at the Goleta, Calif., company is a 3375-compatible head that will be the same as the 3370 version with the exception of track width, company sources report. Both heads could appear in volume by mid-year, with OEM 3370 heads available during the fourth quarter. Also planned for fourth-quarter introduction is a plug-compatible 3380 thin-film hea .

Saratoga, Calif., start-up **Cartrex Corp.** plans to unveil a high-capacity ¼-in. tape cartridge this year. Designed around a patent held by **Newell Research Corp.**, the cartridge will be offered in a four-track serpentine version that will store 30M bytes of data on 900 ft. of tape in a package compatible with cartridges manufactured by 3M Co. Sources close to the company say multi-channel in-line versions will follow. These versions will handle as many as 16 data tracks and bit densities in the 10,000-bpi range for storage capacities around 300M bytes. The new medium, called the NC-250, is designed for 90-in.-per-record backup of Winchester-disk drives. Also due from Cartrex this year is a high-capacity DC-100-compatible 0.15-in. cartridge designated the NC-150. Prices have not been set for either cartridge.

The first combination of **Amlyn's** five-platter, 5M-byte, 5¼-in. floppy-disk drive and **Seagate Technology's** 6M-byte, 5¼-in. ST-506 Winchester-disk drive may appear this quarter in a Z80A-based desk-top computer system from **Colon Systems, Inc.,** San Jose, Calif. Colon's unnamed and unpriced hardware will run CP/M and MP/M, as well as a proprietary operating system based on the FORTH programming language. Production versions of the system will be available for commercial applications this quarter through retail outlets, while FORTH-based systems will be targeted at OEMs selling into scientific applications. Colon reportedly is funded in part by **Dysan Corp.,** a Santa Clara, Calif., media house that has also participated in the funding of Amlyn and Seagate.

**Control Data Corp.** will phase itself out of the business of refurbishing disk packs and disk cartridges and shift this work to **Magnetic Data Storage, Inc.,** a Minneapolis start-up CDC plans to fund.

The new company plans to open for business this month. Disk refurbishing entails cleaning a disk's surface, examining a medium for cuts or scratches, replacing disks as required and realigning the pack and/or rewriting servo data if necessary.