# Microware Review

## Len Proctor

## Computereyes Video Acquisition System

The COMPUTEREYES Video Acquisition System is an inexpensive accessory for the Apple II series of personal computers that can translate any standard video signal into an Apple hi-res screen image. To the user this means that they can now capture and print out on paper or on disk realistic images from a variety of video sources such as video tape recorders, video disk players and video cameras. The relative ease with which this may be done facilitates the production of both paper and computer-based materials to support instruction. In addition, accessory utility programs are also available to adapt the image produced by COMPUTEREYES for use with other popular graphics programs such as Print Shop, Newsroom or Mouse Paint.

Contrary to the requirements of most of the peripherals available for the Apple II, COMPUTEREYES does not use an expansion slot. Instead, after the video signal has been passed from the source to the COMPUTEREYES hardware, the hardware box is connected with a ribbon cable to the 16-pin Game I/O socket in Apple's motherboard. Only two video signal adjustments are required. They are image brightness and synchronization. The few steps required for making these adjustments is detailed in a concise and well written manual.

The menu driven system software provided by the manufacturer serves several functions. It controls the initial set-up of the system, the digitization of computer images and the storage or retrieval of images from the disk. Initial set-up or sync adjustment is usually only required only at the beginning of each session in which the equipment is used.

Once this minor task has been completed, the system is ready to capture an image. If a camera such as an aging monochrome port-a-pack is the source of choice, simply point it at the subject, focus and frame the image in the standard manner. Once the image is in place, a choice of three levels of digital capture are available. They are normal, 4-level and 8-level. Normal mode, like high contrast litho film provides only a high contrast black or white line, no half-tones. The 4 and 8-level capture modes provide a limited number of synthesized levels of grey. In this case, the system brightness, camera aperture and subject lighting have to be very carefully adjusted in order to obtain a good multi-level image. Unlike the adjustment for synchronization, this adjustment can be a lengthy, time consuming trial and error process.

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In the normal capture mode, the scan time is about five seconds. The 4-level mode takes about 22 seconds and the 8-level about 45 seconds. Thus, just as in the case of photographic time exposures, the less the subject moves while the image is being digitized, the sharper the graphic will be.

Color information in the video signal is ignored except in the case where a color monitor is used to display the graphic. Because of the way that the Apple handles color and color graphics, the results may be confusing. This is a monochrome system and consequently works best with a monochrome screen.

COMPUTEREYES is available from Digital Vision, Inc., 14 Oak Street, Suite 2, Needham, MA 02192. The cost of the basic package, i.e., interface and software is $130.00 U.S. funds. The cost of the package including a non-viewfinder type camera is $400.00 U.S. Double high-res, Print Shop and Newsroom Utility disks are about $15.00 U.S. each.