

DIGITAL VISION

COMPUTEREYES™

Flexidraw Compatibility Software

A POWERFUL, EASY-TO-USE SOFTWARE
ENHANCEMENT FOR YOUR **COMPUTEREYES™**
VIDEO ACQUISITION SYSTEM

Operationally similar to the standard system software, the Flexidraw Compatible System Software allows you to capture images and save them to disk in either the standard format or in Flexidraw Pen Palette format using the Commodore's available true greys. These images may then be modified, colored, have text added, and printed using the powerful Flexidraw package.

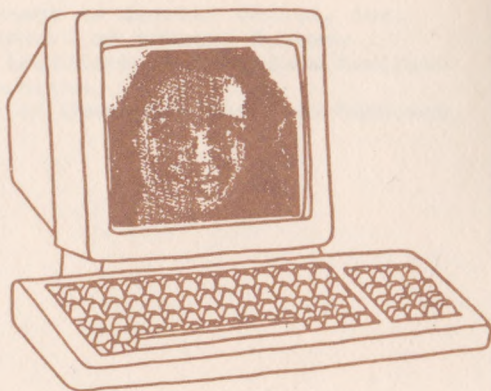
FEATURES

- High-contrast, 4-level and 8-level grey-scale image capture routines similar to the standard software
- Two additional capture routines utilizing the Commodore's available true grey levels for superior image quality
- Image save-to-disk capability in Flexidraw Pen Palette compatible format

SYSTEM REQUIREMENTS

- Commodore-64 and 1541 or compatible disk drive
- **COMPUTEREYES™** Video Acquisition System

Similar software enhancements are available to support most other popular graphics packages



OWNERS' MANUAL AND DISK

COMPUTEREYESTM

FLEXIDRAW-COMPATIBLE SYSTEM SOFTWARE

OWNERS' MANUAL SUPPLEMENT

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INTRODUCTION

Congratulations on your purchase of the COMPUTEREYES Flexidraw-Compatible System Software. This enhancement to the COMPUTEREYES Video Acquisition System is designed to support the graphics mode and disk format used by the "Flexidraw" software package from Inkwell Systems. Images acquired using COMPUTEREYES and the Flexidraw-Compatible software can have more pleasing grey tones, due to the fact that the true Commodore grey colors can be used.

This document is a collection of notes describing the operation of your COMPUTEREYES Flexidraw-Compatible System Software. Since the operation of the Flexidraw-Compatible software is essentially identical to that of the standard COMPUTEREYES system, only the differences that exist between the standard and Flexidraw-Compatible versions will be discussed.

Flexidraw-Compatible images are acquired and saved to disk independently from standard acquisitions. This means that you should use the appropriate disk depending on which image type is currently of interest. However, if you are not interested in images with the true Commodore greys, or you are not planning on using the Flexidraw Pen Palette, images that you acquire with the standard COMPUTEREYES System Software are compatible with the Flexidraw software.

THE COMPUTEREYES EXECUTIVE

If you are familiar with the operation of the standard COMPUTEREYES System Software, there will be very little new for you to learn, as the Flexidraw-Compatible Executive was modeled after the standard software to the greatest degree possible. The menu structure, sync, brightness, and acquisition procedures, on-line help, and disk access all operate exactly as with the standard software. The two grey-scale capture modes of the standard software are augmented by two new modes, called "LOW-CONTRAST CAPTURE" and "HIGH-CONTRAST CAPTURE". These modes are discussed separately below.

There is also an example of a Flexidraw-Compatible image taken with COMPUTEREYES on the disk that you can load and examine (called "NAN" - it should be familiar). The Flexidraw-Compatible executive is a program file called "XEC.F", to differentiate it from the standard executive. Therefore, to run the Flexidraw-Compatible software, type the following commands:

LOAD "XEC.F",8
RUN

If you have any questions about the operation of the executive, refer to Section 4 of the COMPUTEREYES Owners' Manual for clarification.

LOW-CONTRAST CAPTURE - Both of the new image capture modes included in the Flexidraw-Compatible System Software allow you to acquire images containing all five of the Commodore's grey levels (Black, Grey 1, Grey 2, Grey 3, and White). This is accomplished using four scans in a manner similar to the Standard System Software's four-level grey scale mode. The acquisition software is different, however, in that the results of each scan are processed so as to yield an image with true grey levels.

HIGH-CONTRAST CAPTURE - Similar to the LOW-CONTRAST CAPTURE mode, except that an image with greater contrast from light to dark is formed. This is done by using every other video threshold level, as opposed to four adjacent levels as in the LOW-CONTRAST CAPTURE mode. Since your images depend on many factors, such as lighting and video equipment differences, you will want to experiment with both of the new capture modes to achieve the desired effect.

Please make note of the following effects that pertain to Flexidraw-Compatible images. Flexidraw places your Commodore in standard bit-mapped graphics mode, which means that each 8-dot by 8-dot block may contain only two colors (or grey levels, in this case). When real-world images are acquired, it is possible that more than two grey levels may try to occupy the same color block. The Flexidraw-Compatible System Software decides which two colors predominate each color block, and adjusts the image accordingly. The result is that, for some types of relatively complex images, you will see a slight blocking effect (look closely at the "NAN" image included on the disk). This effect can be resolved quite easily once you enter the Flexidraw program by "touching up" your images using the power of Flexidraw. We purposely did not touch up "NAN" so that you can better understand the limitations of the standard Commodore bit-mapped graphics mode.

The NORMAL CAPTURE, 4-LEVEL CAPTURE, and 8-LEVEL CAPTURE modes are identical to the modes of the same name in the standard System Software. Images are saved to disk in the standard format, which is compatible with Flexidraw. You may prefer these modes for some types of images. Please note that, if your application includes printing to a standard dot-matrix printer, you MUST use one of these three modes instead of the HIGH- or LOW-CONTRAST capture modes. The

reason for this is that Flexidraw does not take into account colors (or grey levels here) when it prints, and the result is usually a mess. (Don't bother trying to print "NAN" with a standard printer.) Pen Palette, however, supports colors, and you may use any of the capture modes, depending on the application. Experiment!

You will notice that all images acquired with the Flexidraw-Compatible System Software contain a blue stripe six color blocks in from the right edge of the screen. This is to remind you that the Flexidraw menu occupies the six right-most color blocks, and this area is not available for image data. The stripe is included to help you center images within the image area. If, for some reason, you'd like to get rid of the stripe, just delete line 2517 from XEC.F.

When you save or load images acquired with the true Commodore greys (LOW- or HIGH-CONTRAST CAPTURE), XEC.F automatically saves or loads the corresponding color file.

FILE FORMATS

There are two types of files generated by the Flexidraw-Compatible software: image files and color files. Image files are standard 32-block files that are precisely compatible with the Flexidraw file format. They are binary ("PRG") files containing 8000 bytes of image data in the standard Commodore format.

Color files are peculiar to the Flexidraw Pen Palette software. They consist of 1000 bytes of pointers, followed by 23 bytes of palette data. Each pointer defines the two colors of the respective color block by containing a value between 1 and 23, which points to associated palette byte. The palette byte, in turn, contains two nibbles which determine the two colors (foreground and background) to be displayed in the block. Refer to the Flexidraw manual for further information.

Files may be named with any valid Commodore file name. For grey-scale (LOW- and HIGH-CONTRAST) images, XEC.F automatically saves the corresponding color file. For example, if you saved a grey-scale image called "HOUSES", the two files that would be saved would be "HOUSES" and "HOUSES.GP".

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SYSTEM SOFTWARE

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Flexidraw
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