REVISED 5/20/86

KODAK

STILL VIDEO SYSTEM

APPLICATIONS/CONFIGURATIONS

PETE SUCY
X-62382

GENERAL NOTES:

1. The principal computers we intend to interface with are the IBM PC, the Apple II series and the Macintosh.

2. Video Files are shown within this document to simplify the illustration. However, a Single Disk Player/Recorder could be substituted in almost every case.

3. The feasability of duping still video floppies needs further investigation.

SVS

APPLICATIONS/CONFIGURATIONS

1. DUPLICATION/EDITING

2. MULTI IMAGE DISPLAY

3. UNMANNED MULTI IMAGE TRANSMISSION

4. UNMANNED MULTI IMAGE PRINTING

5. COMPUTER CONTROLLED IMAGE MANIPULATION

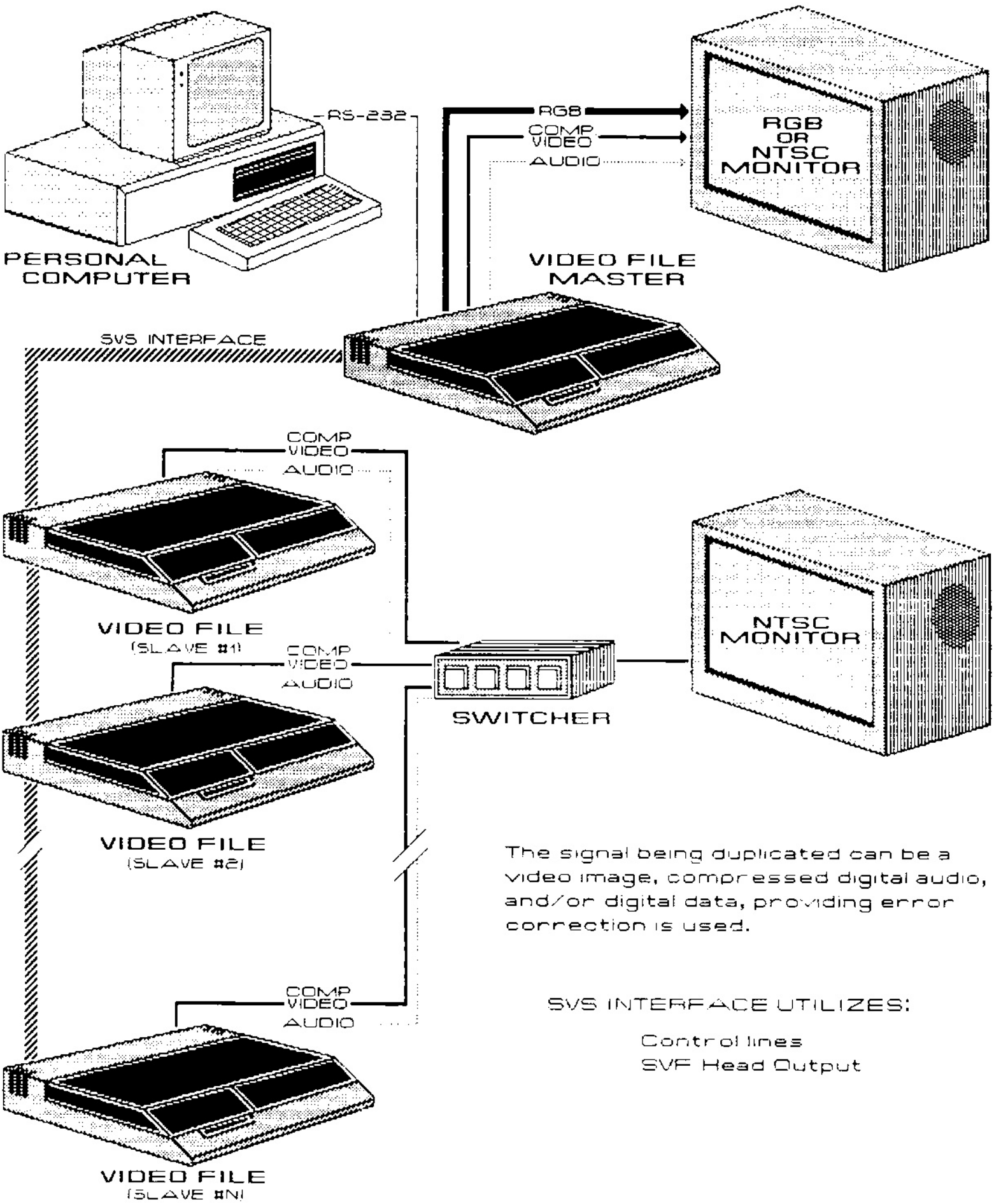
6. COMBINING COMPUTER GRAPHICS/TEXT WITH IMAGE DATA

7. DIGITAL IMAGE STORAGE ON COMPUTER DISK

8. INTERACTIVE COMPUTER APPLICATIONS

DUPLICATION/EDITING

DUPLICATION/EDITING



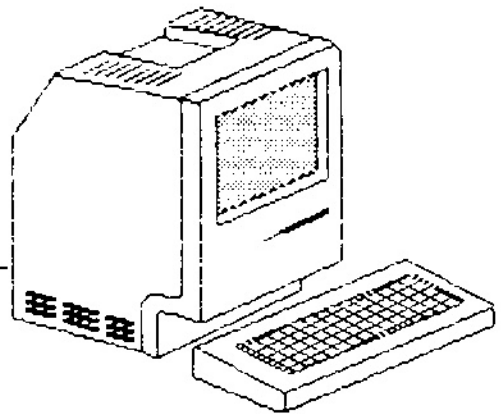
The signal being duplicated can be a video image, compressed digital audio, and/or digital data, providing error correction is used.

SVS INTERFACE UTILIZES:

Control lines
SVF Head Output

MULTI IMAGE DISPLAY

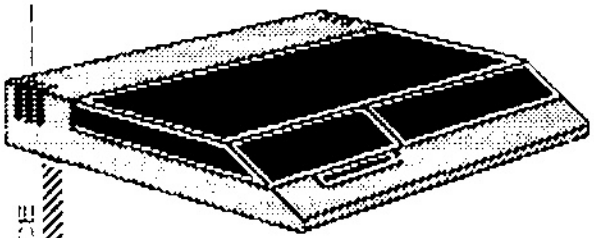
MULTI IMAGE DISPLAY



PERSONAL COMPUTER

A computer, through the RS-232 serial interface, controls each of the Video Files allowing for pre-programmed random access selection and display of multiple images. Video Files need to be Gen-locked to one another for smooth transitions from image to image.

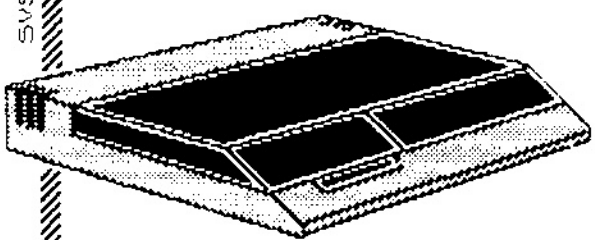
RS 232



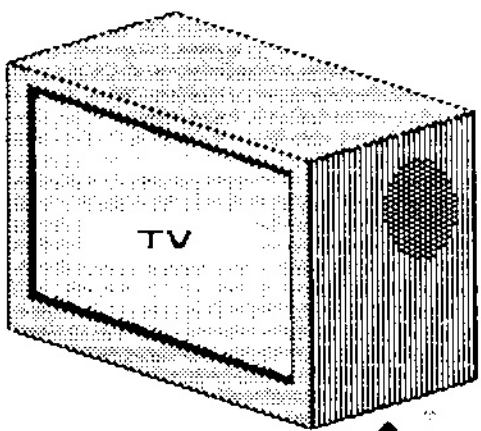
VIDEO FILE #1

SVS INTERFACE

SVS INTERFACE UTILIZES:
Control lines
SVF Head Output



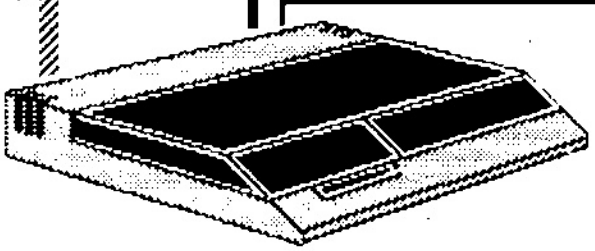
VIDEO FILE #2



SVS INTERFACE

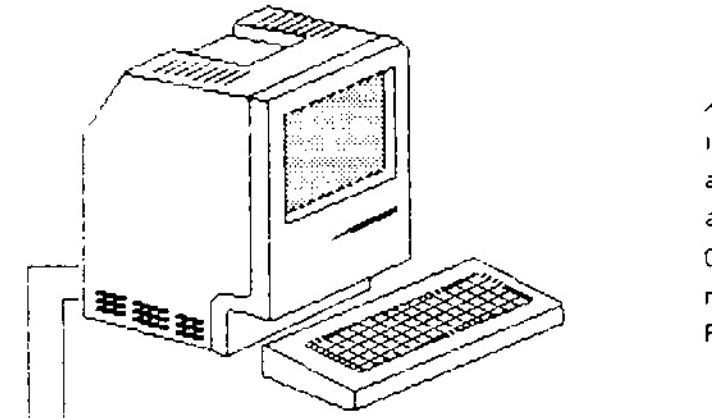
RGB
or
COMPOSITE VIDEO

AUDIO



VIDEO FILE #N

MULTI IMAGE DISPLAY



PERSONAL COMPUTER

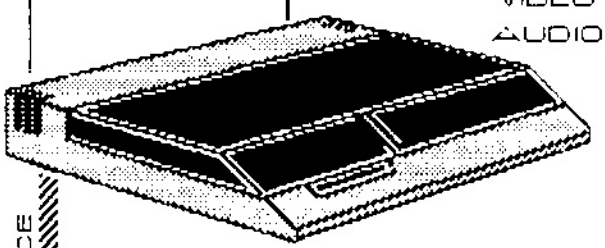
A computer, through the RS-232 serial interface, controls each of the Video Files allowing for pre-programmed random access selection and display of images. Computer controlled switcher allows one monitor access to all images on (N) Video Files. If the units are all Genlocked there is no break in the video as long as the system doesn't call two consecutive images from the same Video File. If Genlock is not possible, a frame-store at the switcher output will allow image switches with only 1/60 second blanking between. With two framestores switches can be made with no blanking and the capability of adding special effects is gained.

RS-232

RS-232

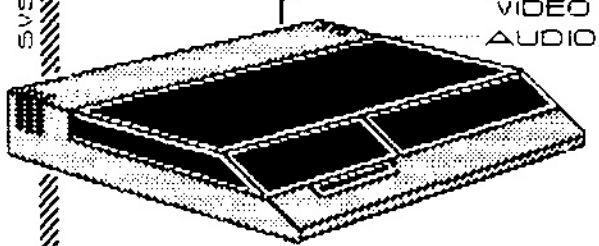
COMP VIDEO

AUDIO



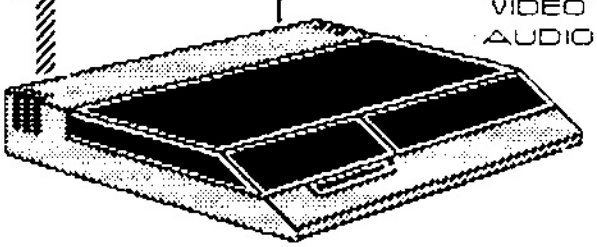
VIDEO FILE #1

SVS INTERFACE



VIDEO FILE #2

SVS INTERFACE



VIDEO FILE #N

INPUTS

COMP VIDEO

AUDIO

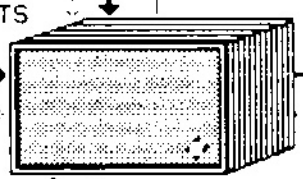
COMP VIDEO

AUDIO

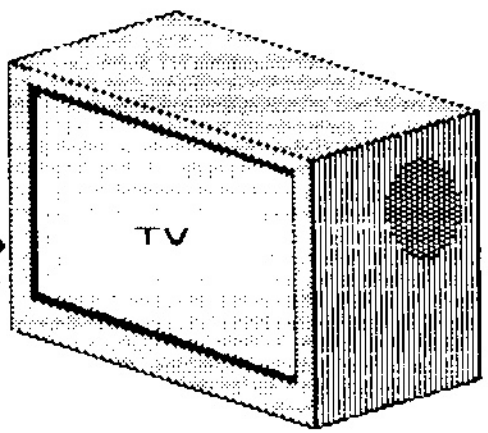
OUTPUT

COMP VIDEO

AUDIO



COMPUTER CONTROLLED SWITCHER



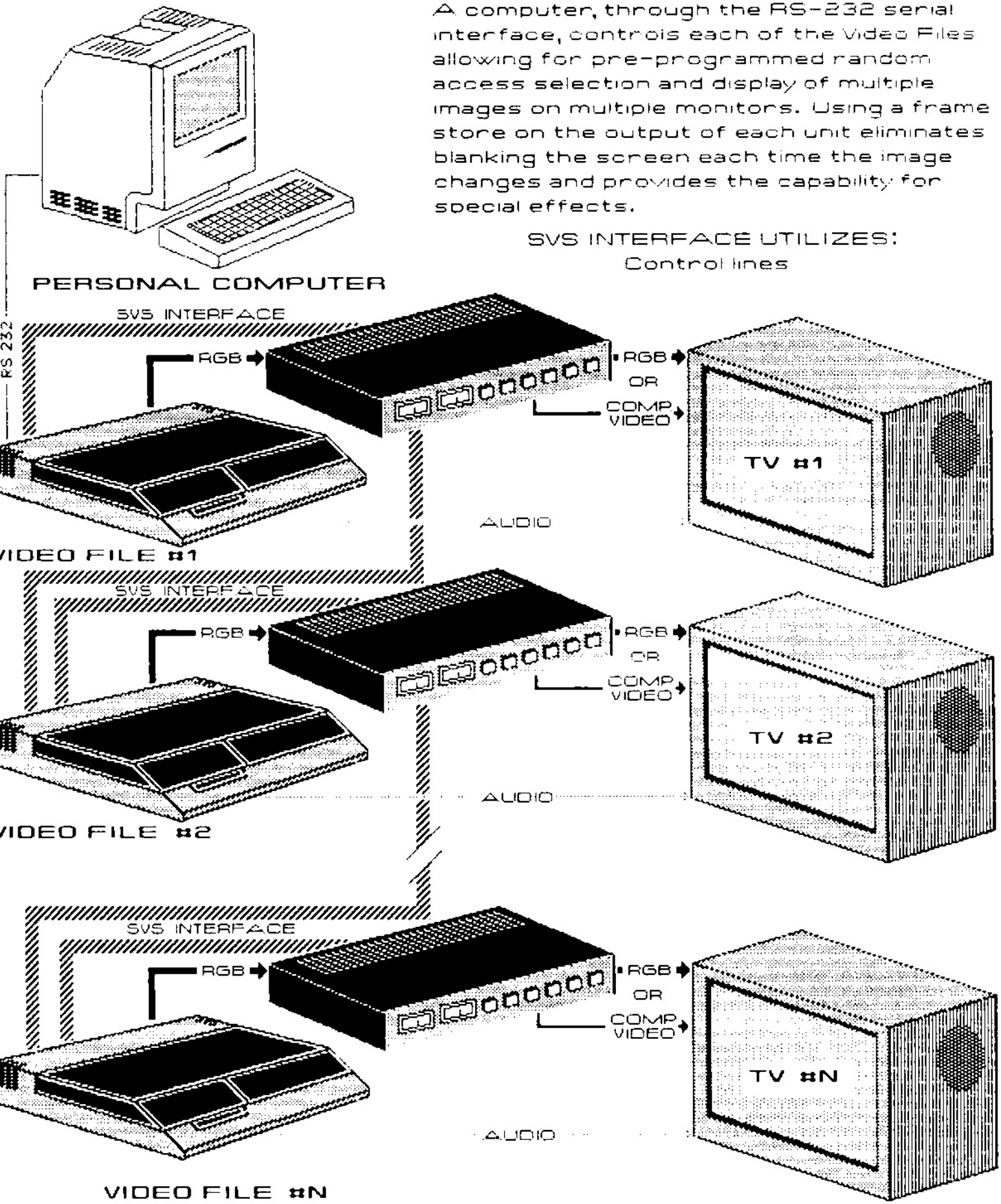
SVS INTERFACE UTILIZES:

Control lines

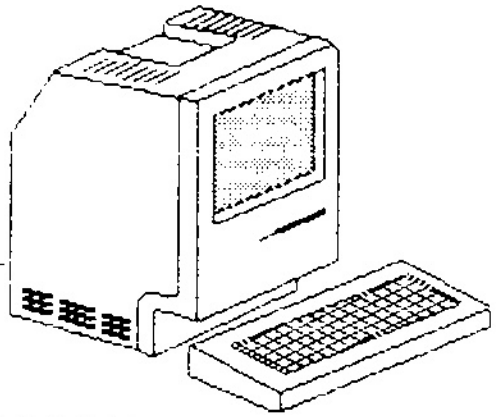
MULTI SCREEN DISPLAY

A computer, through the RS-232 serial interface, controls each of the Video Files allowing for pre-programmed random access selection and display of multiple images on multiple monitors. Using a frame store on the output of each unit eliminates blanking the screen each time the image changes and provides the capability for special effects.

SVS INTERFACE UTILIZES:
Control lines



MULTI SCREEN DISPLAY



PERSONAL COMPUTER

A computer, through the RS-232 serial interface, controls each of the Video Files allowing for pre-programmed random access selection and display of multiple images on multiple monitors.

SVS INTERFACE UTILIZES:
Control Lines

RS 232

SVS INTERFACE

SVS INTERFACE

RGB
or
COMP VIDEO
AUDIO

TV #1

VIDEO FILE #1

RGB
or
COMP. VIDEO
AUDIO

TV #2

VIDEO FILE #2

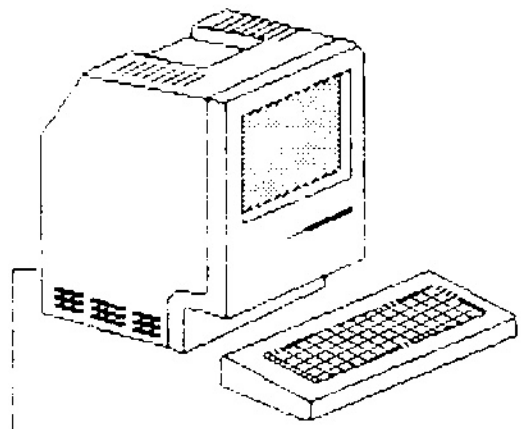
RGB
or
COMP VIDEO
AUDIO

TV #N

VIDEO FILE #N

UNMANNED MULTI IMAGE PRINTING

UNMANNED MULTI IMAGE PRINTING



PERSONAL COMPUTER

Computer controls both Video File and Thermal Printer through RS-232 interface. Automatically displays images and makes thermal prints as determined by operator ahead of time.

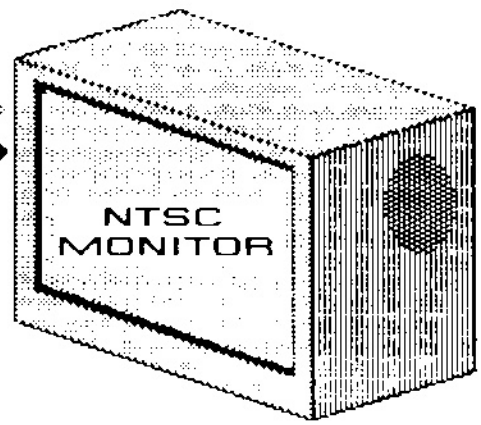
SVS INTERFACE UTILIZES:

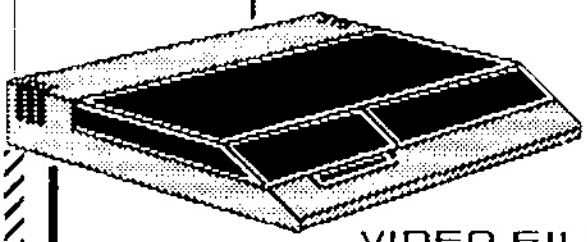
Control lines
Digital Image Data
(DSP)

RS-232

AUDIO

COMP VIDEO



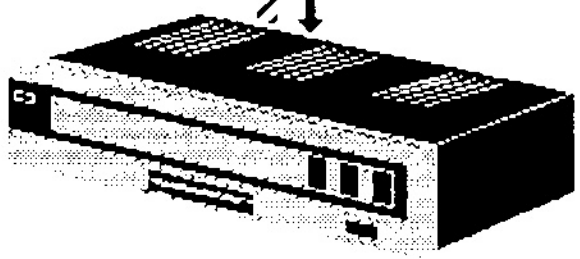


VIDEO FILE

RGB

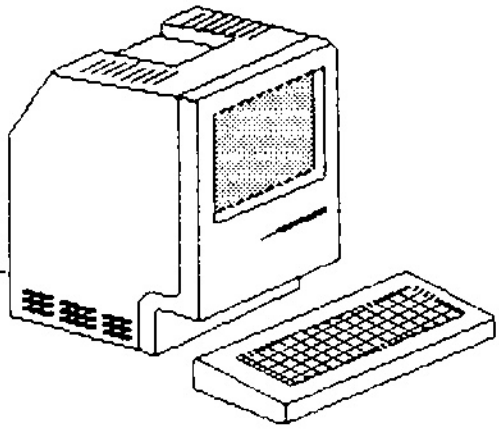
SVS INTERFACE

PRINTS



THERMAL PRINTER

UNMANNED MULTI IMAGE PRINTING



PERSONAL COMPUTER

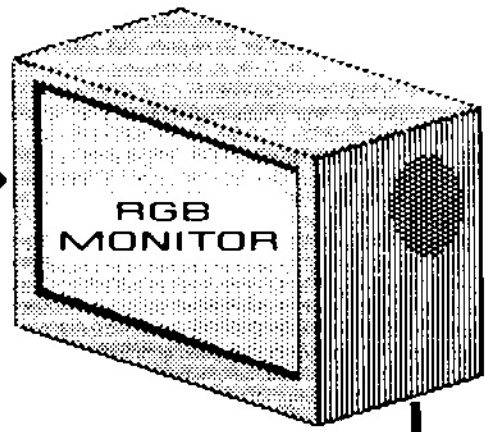
Computer controls both Video File and Thermal Printer through RS-232 interface. Automatically displays images and makes thermal prints as determined by operator ahead of time.

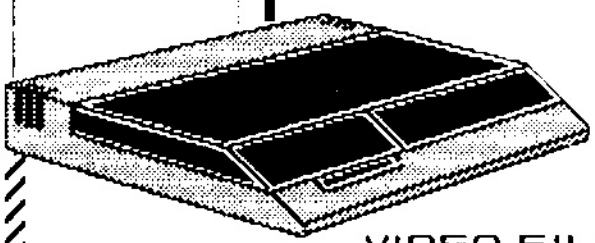
SVS INTERFACE UTILIZES:
Control lines
Digital Image Data
(DSP)

RS-232

AUDIO

RGB



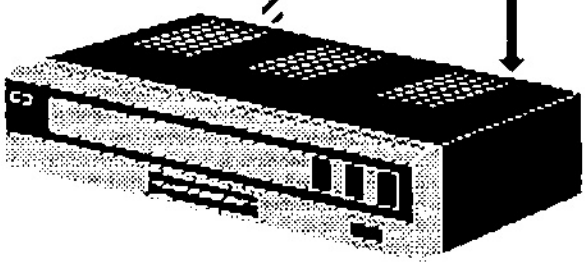


VIDEO FILE

SVS INTERFACE

RGB

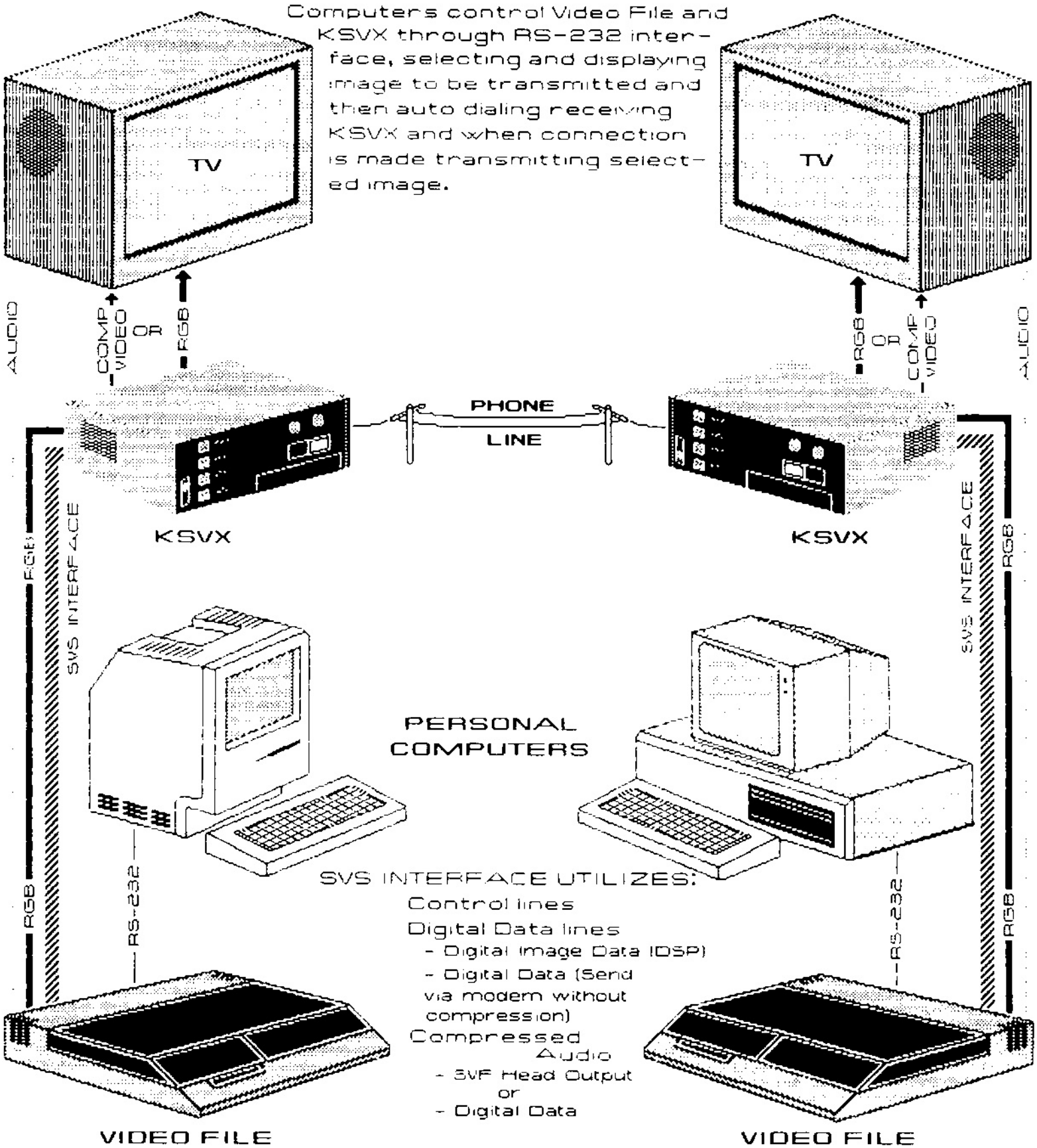
PRINTS



THERMAL PRINTER

UNMANNED MULTI IMAGE TRANSMISSION

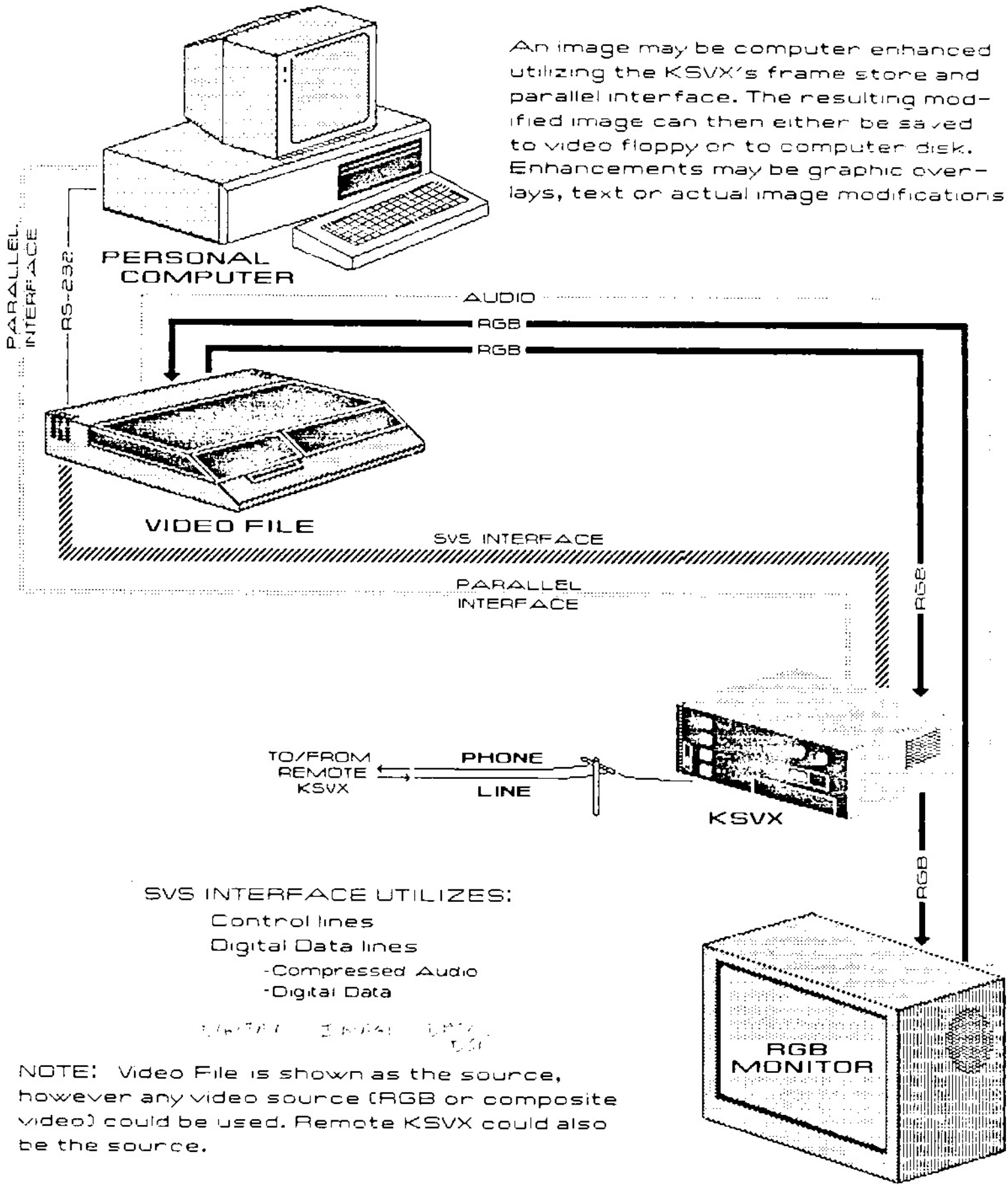
UNMANNED MULTI IMAGE TRANSMISSION



COMPUTER CONTROLLED IMAGE MANIPULATION

COMPUTER CONTROLLED IMAGE MANIPULATION

An image may be computer enhanced utilizing the KSVX's frame store and parallel interface. The resulting modified image can then either be saved to video floppy or to computer disk. Enhancements may be graphic overlays, text or actual image modifications

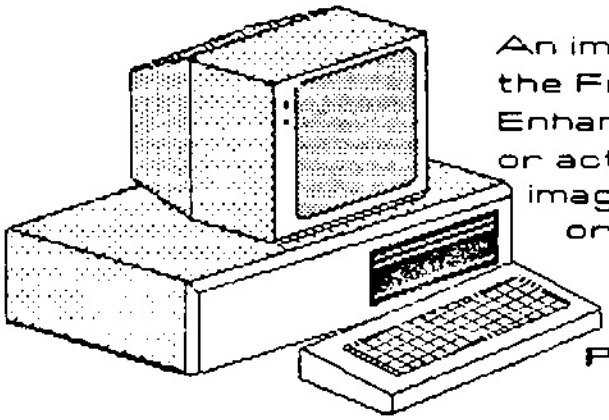


SVS INTERFACE UTILIZES:

- Control lines
- Digital Data lines
  - -Compressed Audio
  - -Digital Data

NOTE: Video File is shown as the source, however any video source (RGB or composite video) could be used. Remote KSVX could also be the source.

COMPUTER CONTROLLED IMAGE MANIPULATION



An image may be computer enhanced using the Frame Store and its parallel interface. Enhancements may be graphic overlays, text, or actual image modifications. The resulting image may be saved to either video floppy or computer disk.

PERSONAL COMPUTER

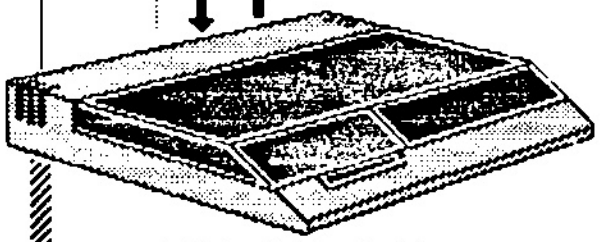
PARALLEL INTERFACE

RS-232

AUDIO

RGB

RGB



VIDEO FILE

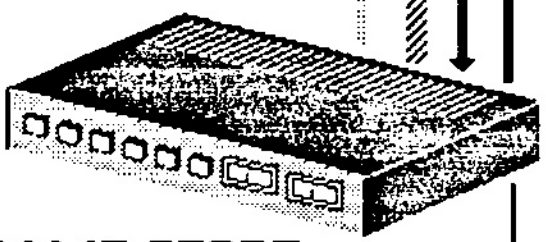
SVS INTERFACE

PARALLEL INTERFACE

RGB

RGB

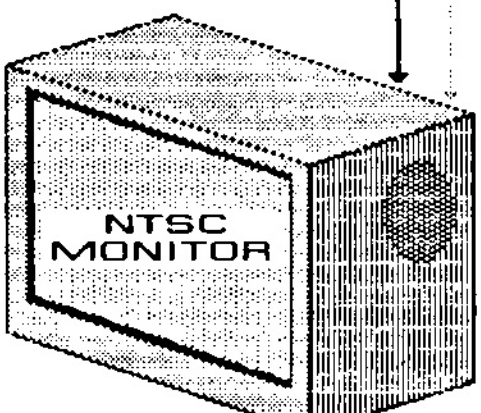
SVS INTERFACE UTILIZES:
Control lines



FRAME STORE

COMP VIDEO

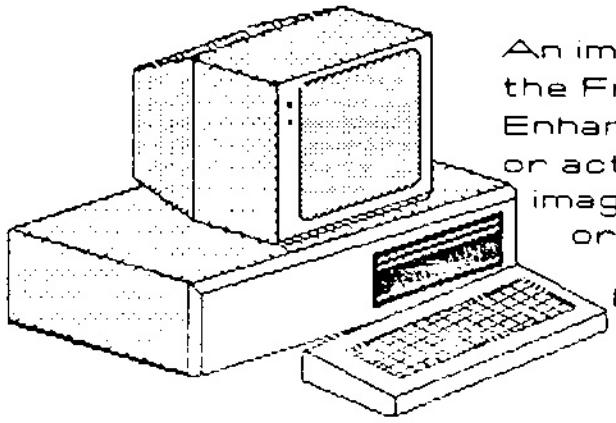
AUDIO



NOTE: Video File is shown as the input source, however any source (RGB or composite video) could be used.

COMPUTER CONTROLLED IMAGE MANIPULATION

An image may be computer enhanced using the Frame Store and its parallel interface. Enhancements may be graphic overlays, text, or actual image modifications. The resulting image may be saved to either video floppy or computer disk.



PERSONAL COMPUTER

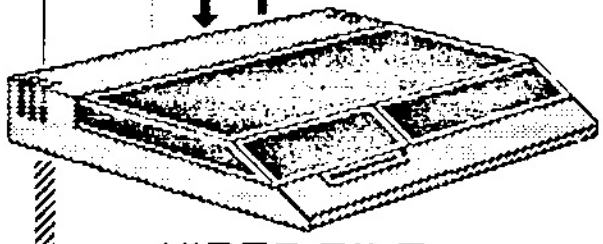
PARALLEL INTERFACE

RS-232

AUDIO

RGB

RGB



VIDEO FILE

SVS INTERFACE

PARALLEL INTERFACE

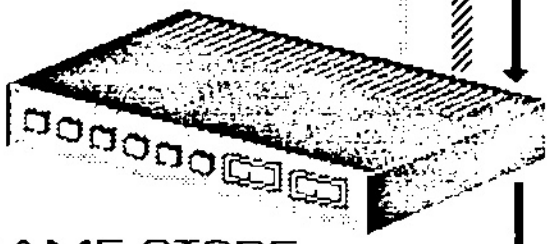
RGB

RGB

AUDIO

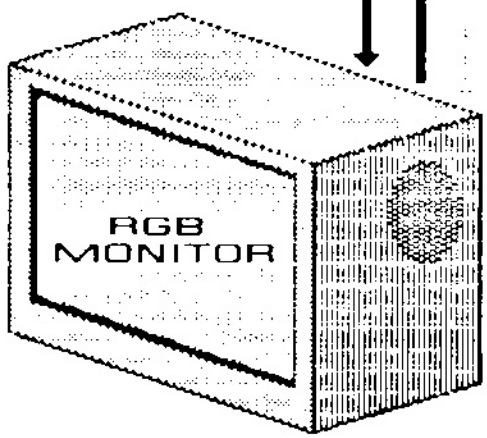
SVS INTERFACE UTILIZES:

Control lines



FRAME STORE

RGB



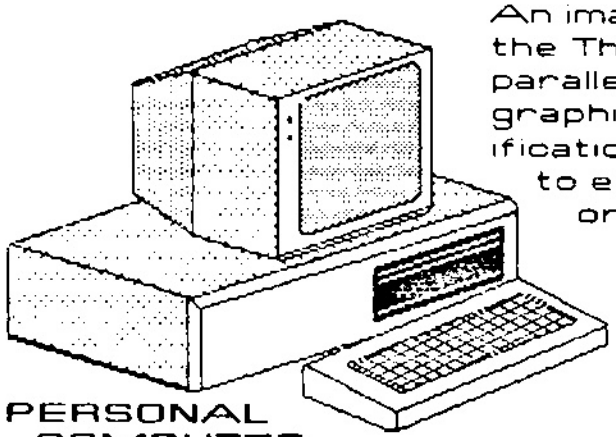
RGB MONITOR

NOTE: Video File is shown as the input source, however any source (RGB or composite video) could be used.

COMPUTER CONTROLLED IMAGE MANIPULATION

An image may be computer enhanced using the Thermal Printer's frame store and its parallel interface. Enhancements may include graphic overlays, text, or actual image modifications. The final image may then be saved to either video floppy or computer disk or printed with the Thermal Printer.

NOTE: Video File is shown as the input source, however any source (RGB or composite video) could be used.



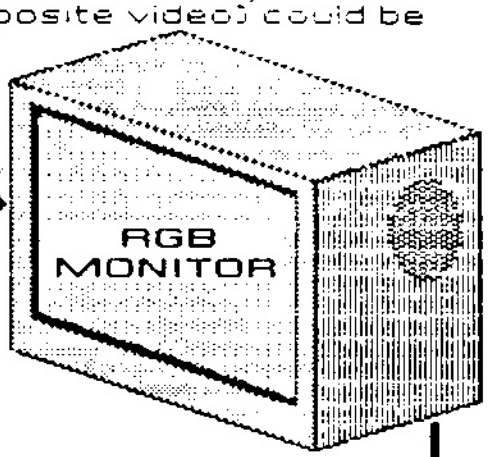
PERSONAL COMPUTER

PARALLEL INTERFACE

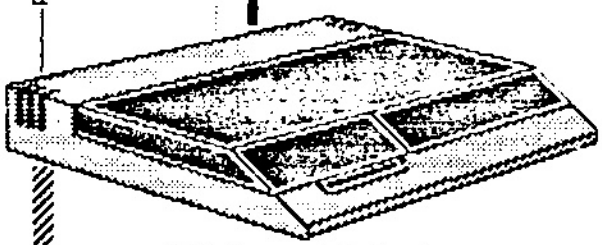
RS-232

AUDIO

RGB



RGB MONITOR



VIDEO FILE

PARALLEL INTERFACE

RGB

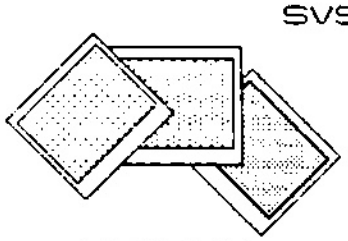
SVS INTERFACE UTILIZES:

Control lines

DIGITAL DATA LINES

- DIGITAL IMAGE DATA

(DSP)



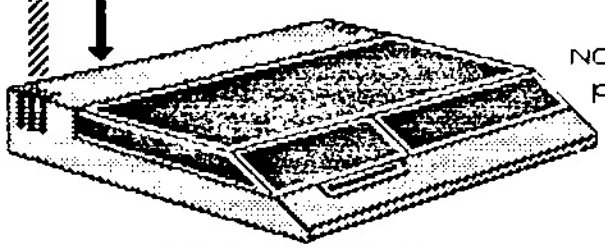
PRINTS

THERMAL PRINTER

RGB

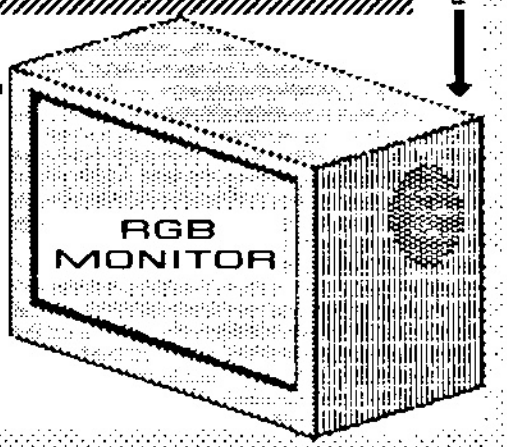
SVS INTERFACE

RGB



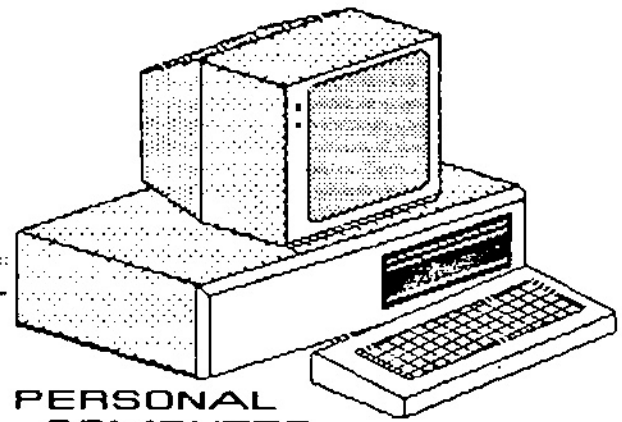
VIDEO FILE
(COULD BE SAME UNIT AS ABOVE)

NOTE: This mode is not practical without an RGB output from thermal printer to provide a way to view the manipulated image



RGB MONITOR

COMPUTER CONTROLLED IMAGE MANIPULATION



PERSONAL COMPUTER

An image may be computer enhanced utilizing the KSVX's frame store and parallel interface. The resulting modified image can then either be saved to video floppy or to computer disk. Enhancements may be graphic overlays, text or actual image modifications

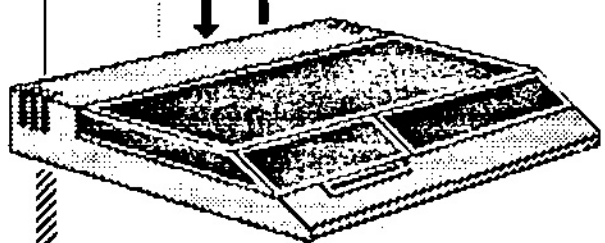
PARALLEL INTERFACE

RS-232

AUDIO

RGB

RGB



VIDEO FILE

SVS INTERFACE

PARALLEL INTERFACE

RGB

RGB

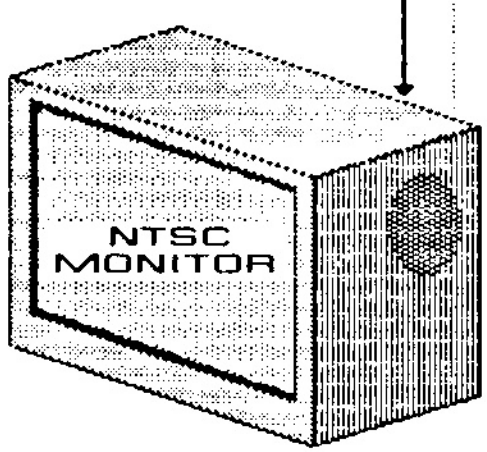
AUDIO

TO/FROM REMOTE KSVX

PHONE LINE

KSVX

COMP VIDEO



NTSC MONITOR

SVS INTERFACE UTILIZES:

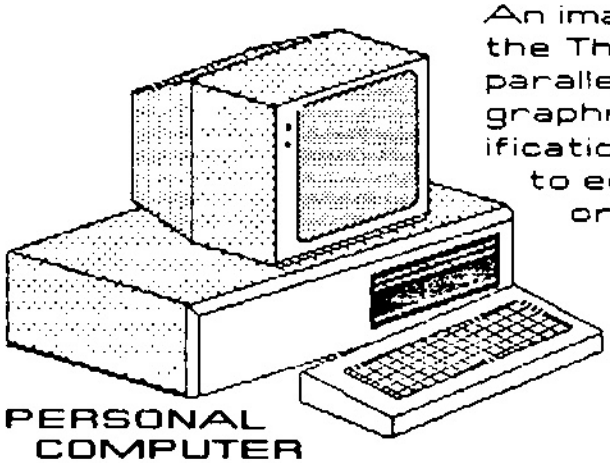
- Control lines
- Digital Data lines
  - -Compressed Audio
  - -Digital Data

NOTE: Videofile is shown as the source, however any video source (RGB or composite video) could be used. Remote KSVX could also be the source.

COMPUTER CONTROLLED IMAGE MANIPULATION

An image may be computer enhanced using the Thermal Printer's frame store and its parallel interface. Enhancements may include graphic overlays, text, or actual image modifications. The final image may then be saved to either video floppy or computer disk or printed with the Thermal Printer.

NOTE: Video File is shown as the input source, however any source (RGB or composite video) could be used.



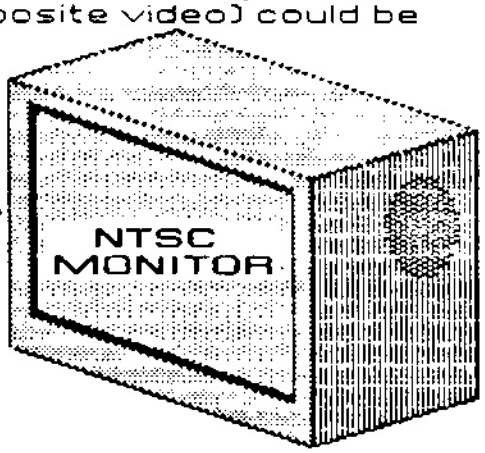
PERSONAL COMPUTER

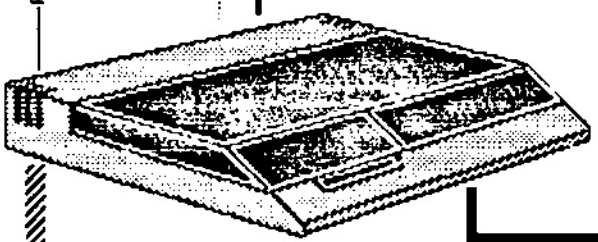
PARALLEL INTERFACE

RS-232

AUDIO

COMP VIDEO





VIDEO FILE

RGB

SVS INTERFACE

PARALLEL INTERFACE

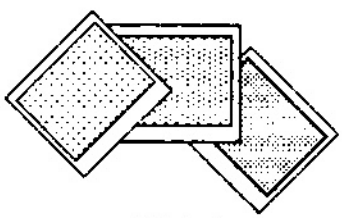
RGB

SVS INTERFACE UTILIZES:

Control lines

D. I D

DSP



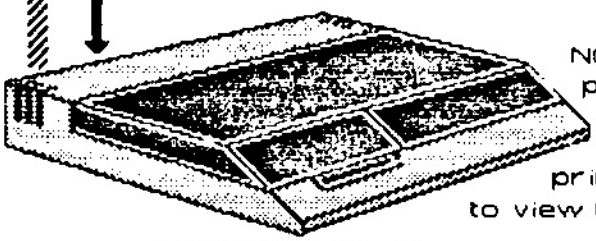
PRINTS

THERMAL PRINTER

SVS INTERFACE

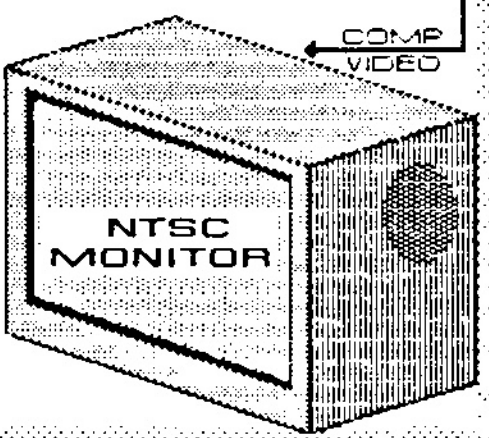
RGB

COMP VIDEO



VIDEO FILE
(COULD BE SAME UNIT AS ABOVE)

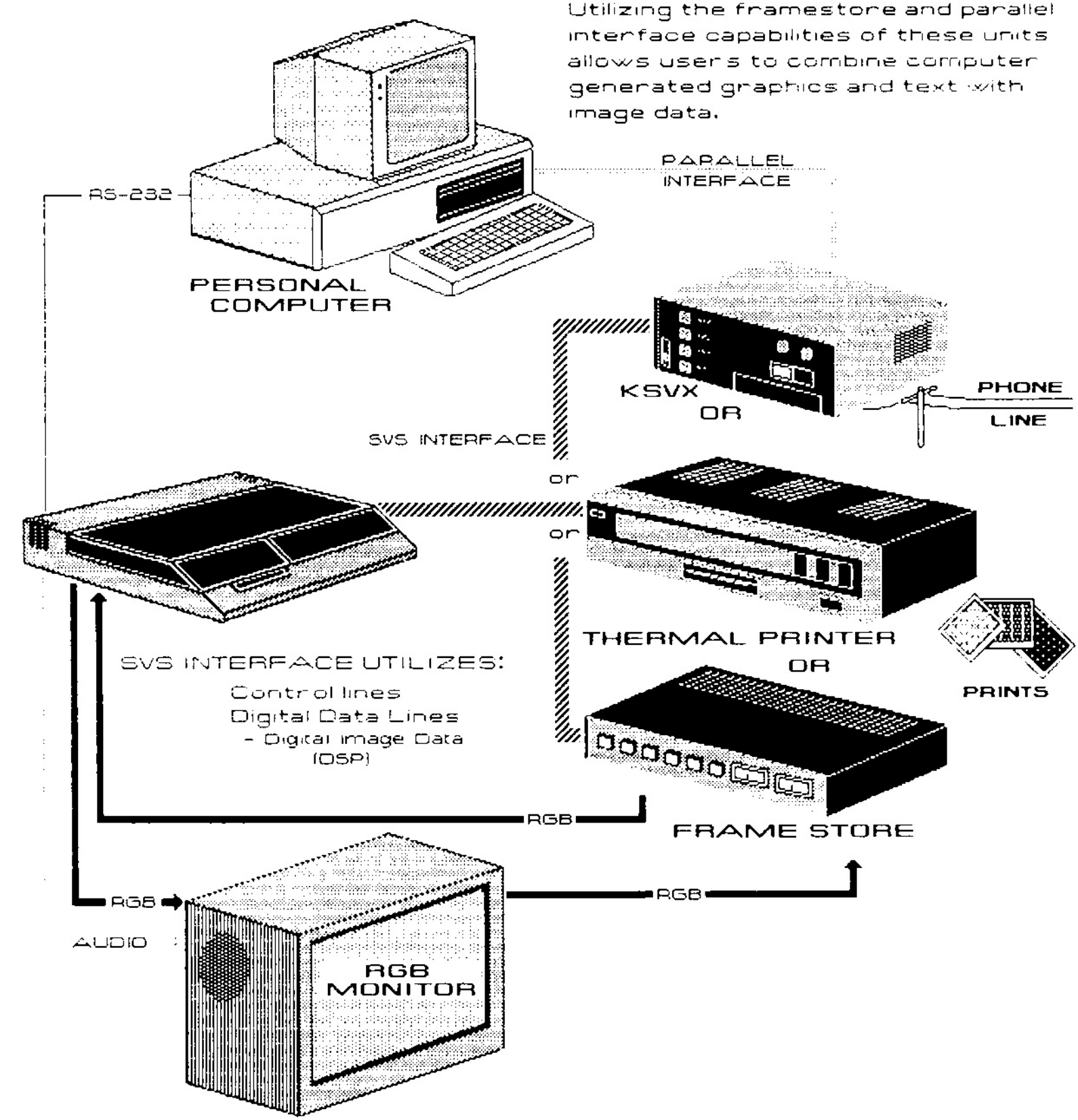
NOTE: This mode is not possible without an RGB and a composite video output from thermal printer to provide a way to view the manipulated image.



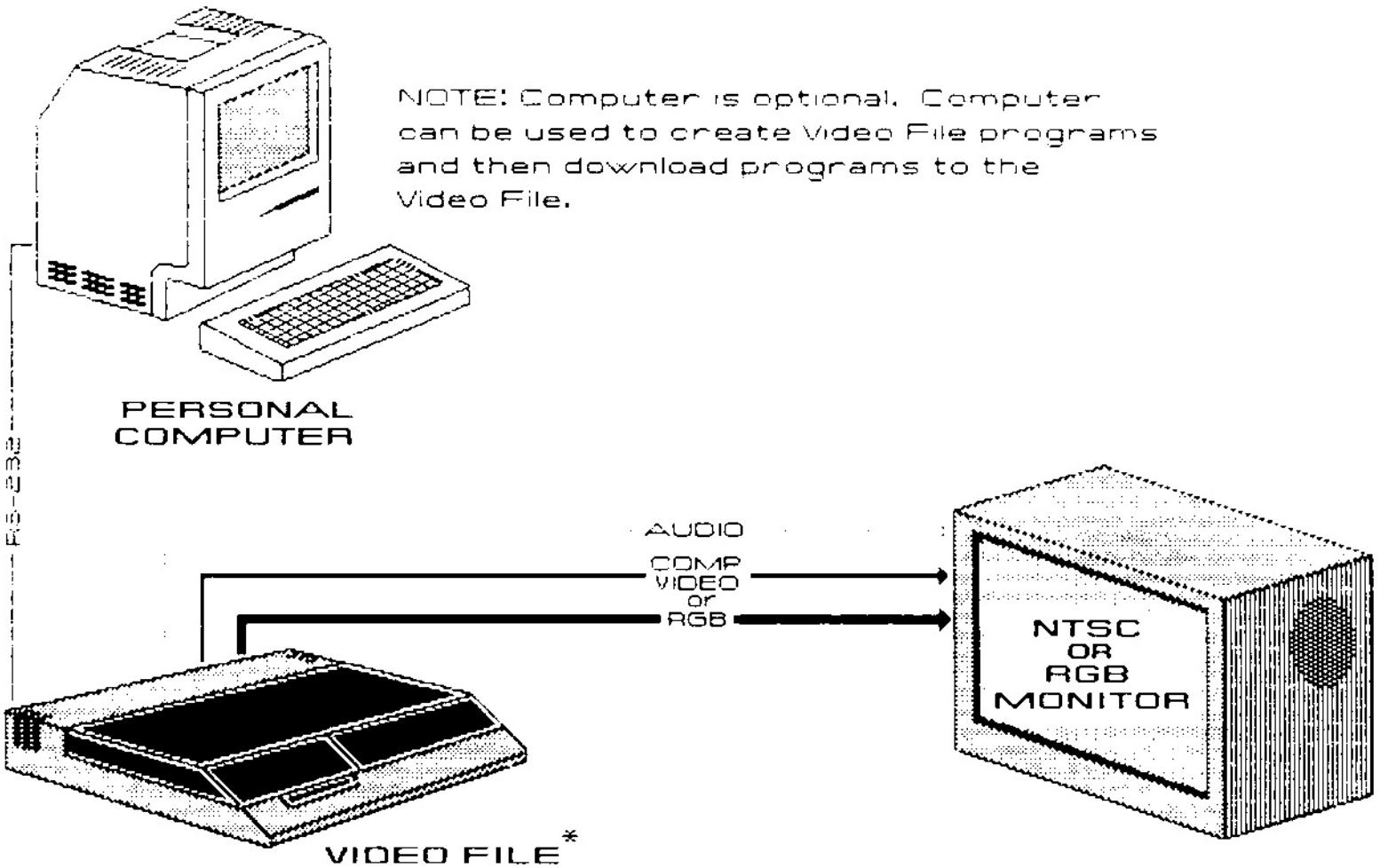
COMBINING COMPUTER GRAPHICS/TEXT WITH IMAGE DATA

COMBINING COMPUTER GRAPHICS/TEXT WITH IMAGE DATA

Utilizing the framestore and parallel interface capabilities of these units allows users to combine computer generated graphics and text with image data.



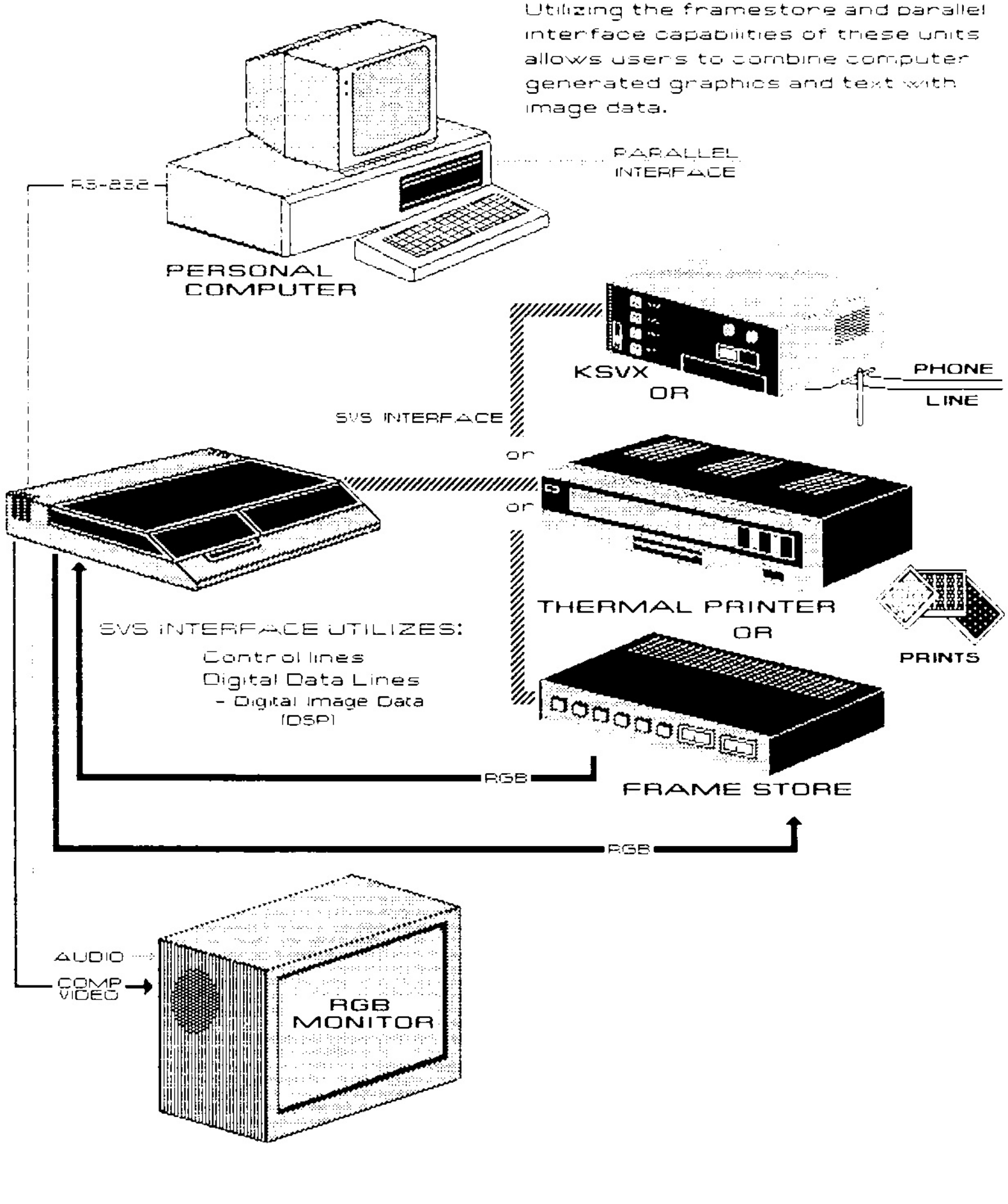
COMBINING TEXT ONLY WITH IMAGE



*Desired text is stored in the Video file cartridge memory, each image can be displayed with or without this stored text as desired. Capable of storing 8,000 characters in a Video file cartridge memory.

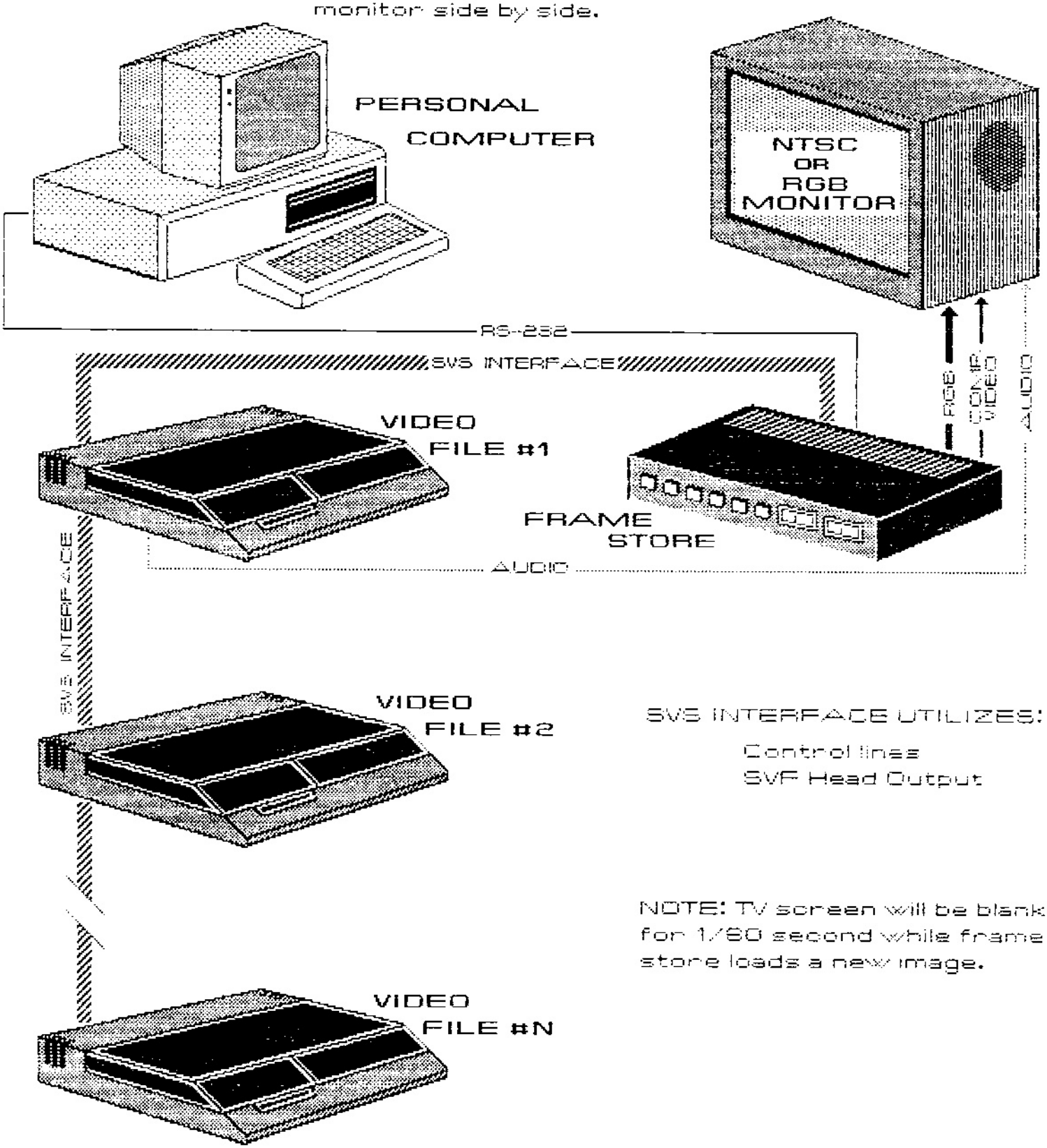
COMBINING COMPUTER GRAPHICS/TEXT WITH IMAGE DATA

Utilizing the framestore and parallel interface capabilities of these units allows users to combine computer generated graphics and text with image data.



INTERACTIVE COMPUTER APPLICATIONS

Computer graphics/text and video images simultaneously. Computer monitor and video monitor side by side.



SVS INTERFACE UTILIZES:

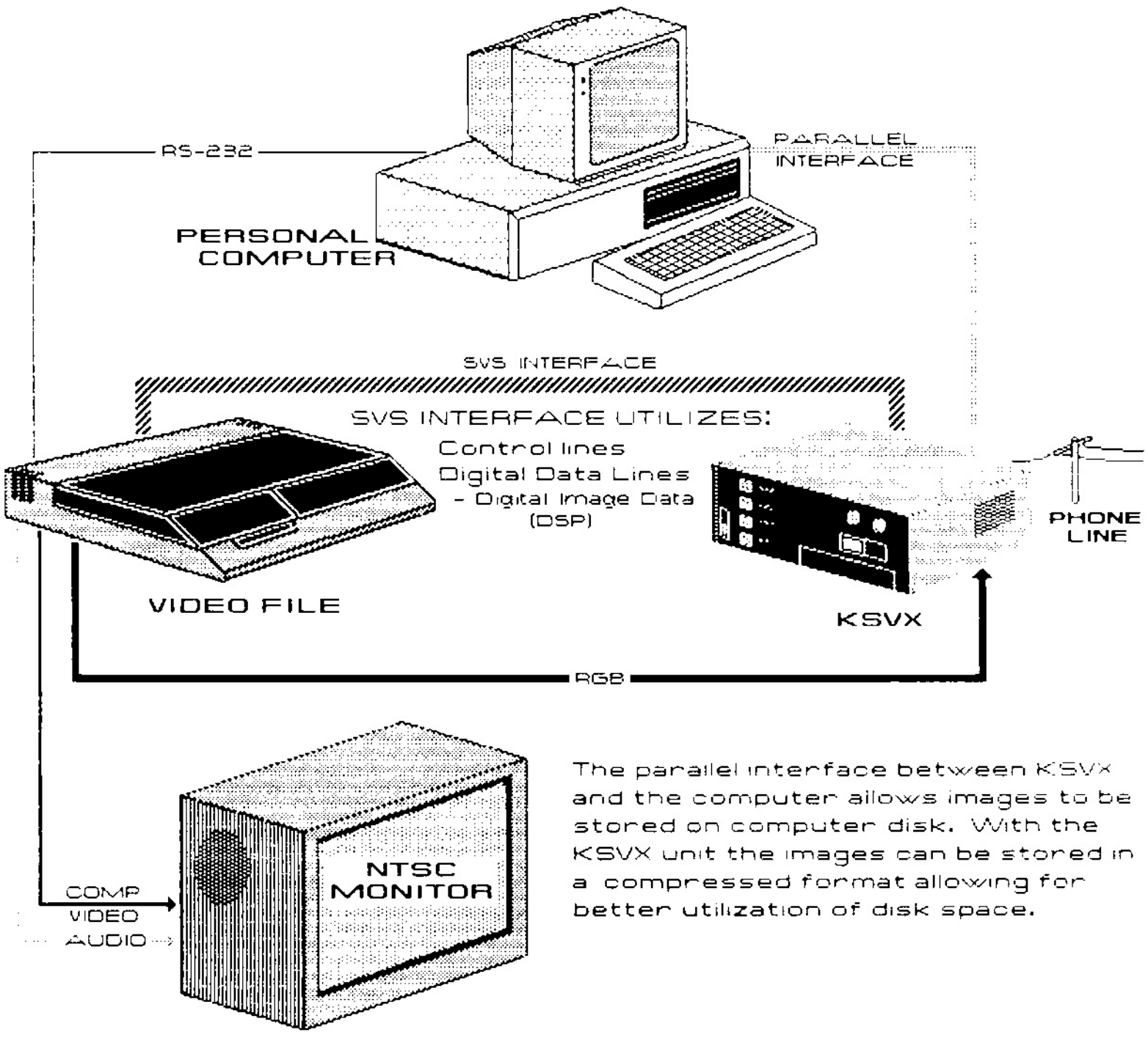
Control lines
SVF Head Output

NOTE: TV screen will be blank for 1/60 second while frame store loads a new image.

DIGITAL IMAGE STORAGE ON COMPUTER DISK

DIGITAL IMAGE STORAGE ON COMPUTER DISK

COMPRESSED DIGITAL IMAGE

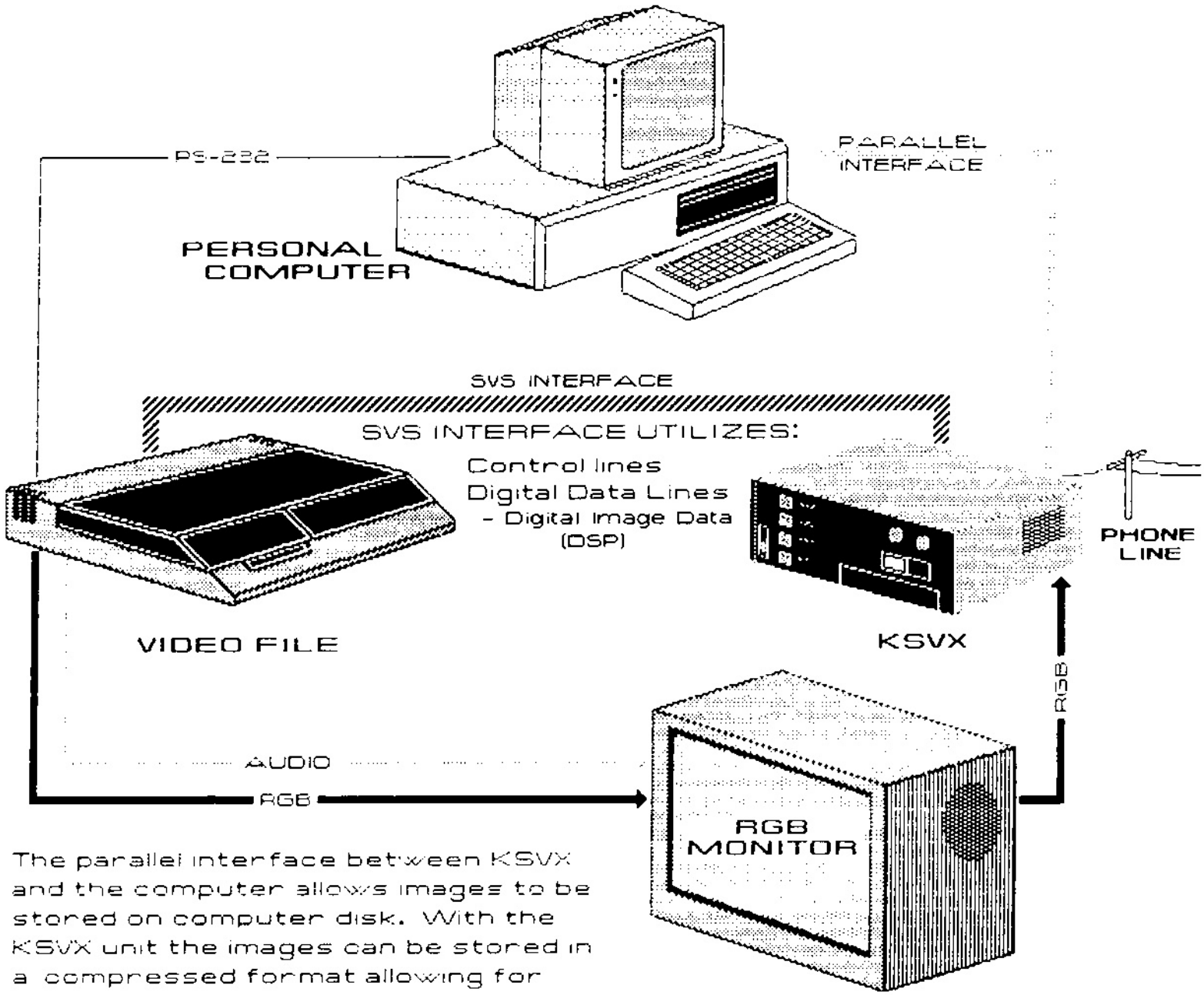


The parallel interface between KSVX and the computer allows images to be stored on computer disk. With the KSVX unit the images can be stored in a compressed format allowing for better utilization of disk space.

NOTE: Video File is shown as the source, however any video source (RGB or composite video) could be used. Remote KSVX could also be the source.

DIGITAL IMAGE STORAGE ON COMPUTER DISK

COMPRESSED DIGITAL IMAGE



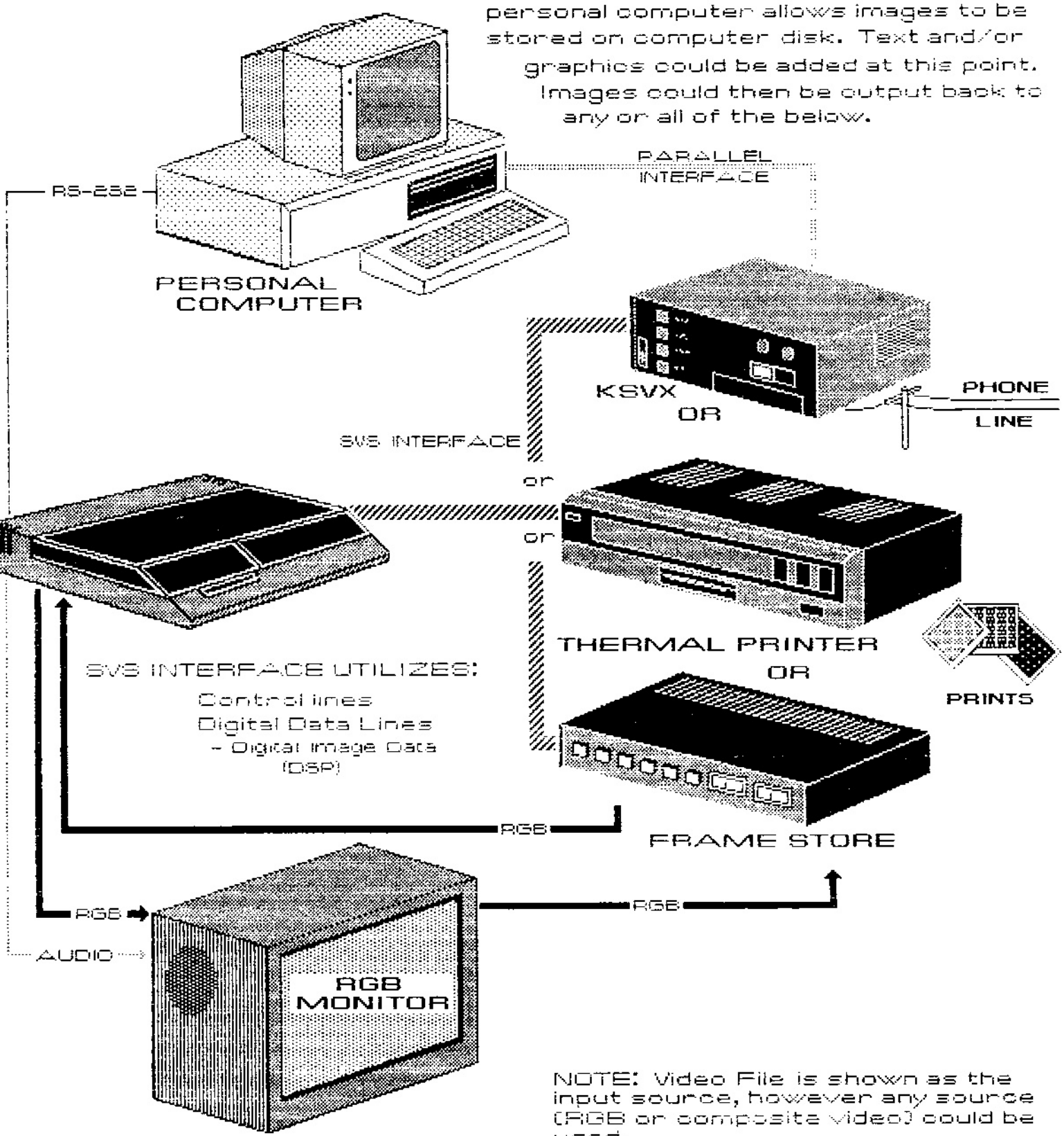
The parallel interface between KSVX and the computer allows images to be stored on computer disk. With the KSVX unit the images can be stored in a compressed format allowing for better utilization of disk space.

NOTE: Video File is shown as the source, however any video source (RGB or composite video) could be used. Remote KSVX could also be the source.

DIGITAL IMAGE STORAGE ON COMPUTER DISK

UNCOMPRESSED DIGITAL IMAGE

The parallel interface between any of the SVS components shown below and a personal computer allows images to be stored on computer disk. Text and/or graphics could be added at this point. Images could then be output back to any or all of the below.

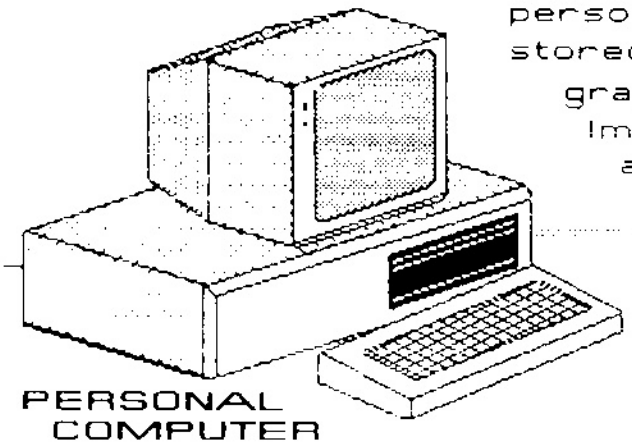


NOTE: Video File is shown as the input source, however any source (RGB or composite video) could be used.

DIGITAL IMAGE STORAGE ON COMPUTER DISK

UNCOMPRESSED DIGITAL IMAGE

The parallel interface between any of the SVS components shown below and a personal computer allows images to be stored on computer disk. Text and/or graphics could be added at this point. Images could then be output back to any or all of the below.



PERSONAL COMPUTER

PARALLEL INTERFACE

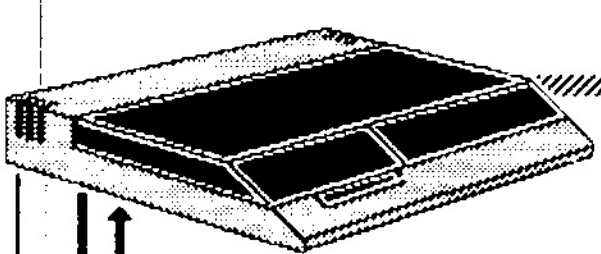
RS-232

KSVX OR

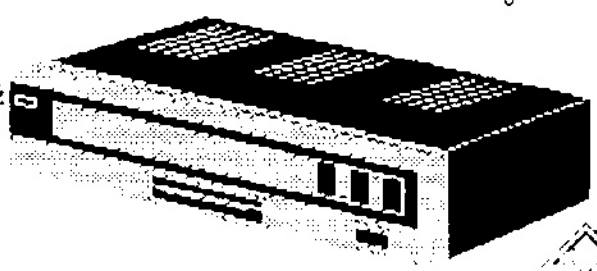
PHONE LINE

SVS INTERFACE

or



or



THERMAL PRINTER OR

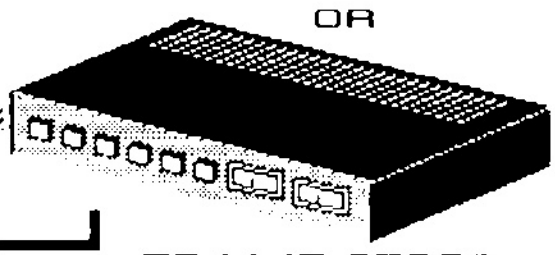
PRINTS

SVS INTERFACE UTILIZES:

Control lines

Digital Data Lines

- Digital Image Data (DSP)



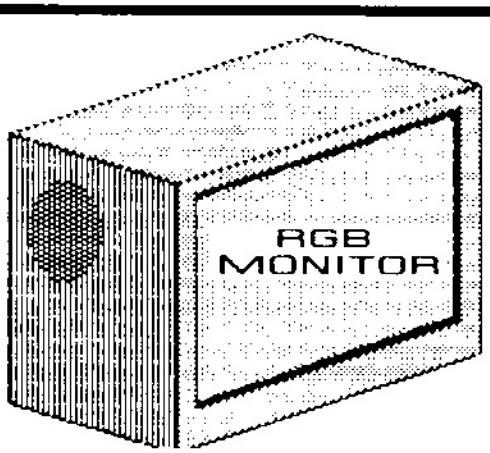
RGB

FRAME STORE

RGB

AUDIO

COMP VIDEO



RGB MONITOR

NOTE: Video File is shown as the input source, however any source (RGB or composite video) could be used.

INTERACTIVE COMPUTER APPLICATIONS