

VIDI-AMIGA
Video Frame
Grabber

by
ROMBO

CONTENTS

SUBJECT	PAGE
INTRODUCTION.....	1
Getting Started.....	2
GUIDED TOUR.....	3
Grabbing Frames.....	3
HELD Frames and the Palette Editor.....	4
Saving and Loading.....	4
Cut, Put and Clipboards.....	5
Window Grabbing.....	6
REFERENCE SECTION	
PROJECT MENU.....	6
New.....	6
Load.....	6
Save.....	6
Save as.....	6
Status.....	7
Delete.....	7
Quit.....	7
OPTIONS MENU.....	7
Grab.....	7
Re-read.....	7
Fast grab.....	8
Animate.....	8
Carousel.....	8
View.....	8
Frame set.....	8
Cut.....	8
Put.....	9
Quantize.....	9
Clear.....	9
Clear FREE.....	9
Initialize.....	9
SETTINGS MENU.....	9
Clipboard.....	9
Use clipbd.....	10

VIDI-AMIGA

Set grid	10
Grid on	10
Coordinates	10
Set interr.	10
Interr. on	10
Autoadvance	10
One Frame	11
Set Window	11
Move Window	11
Palette	11
 THE PANEL	 12
Grab delay	12
Bri	12
Window type	12
Animate delay	12
Carousel delay	13
Frame number	13
Frame status	13
Frame palette	13
 APPENDICES	
A: Installing VIDI on a Hard Disk	14
B: Technical Specification	14
C: User Hardware Adjustments	15
D: Technical Support	15
E: Glossary	16
F: VidiGrab Quick Reference	17

VIDI-AMIGA Video Grabber for AMIGA computers

Version 1 (c)1989 ROMBO Productions

6 Fairbairn Rd, Livingston EH54 6TS Tel : 0506 414631

Credits :

Hardware: Colin Faulkner
Software: Keith Wilson

VIDI-AMIGA USER MANUAL - August 1989

by Keith Wilson, ROMBO

INTRODUCTION

VIDI-AMIGA is a video frame grabber capable of digitising video frames into your Amiga computer. This means that a variety of video sources can be used such as a camera, video recorder, another computer or even live TV, a still picture is not needed.

The Amiga screen is updated in approximately a quarter of a second allowing the video source to be viewed without the need for a separate monitor. This also allows you to grab moving sequences and create stunning multi-window animations by digitising incoming pictures over existing animations with great ease.

All available memory in the Amiga is reserved for multiple framestores which are used to store sequences of pictures or single frames which may be HELD to avoid being overwritten. On a 1Mb Amiga 15 framestores are possible and a further 25 frames per megabyte after this - that's over 90 pictures on a 4Mb machine!

Editing between frames is achieved by use of the Cut and Put commands with the option of having an intermediate Clipboard frame which is used to store multiple clippings for later use.

Full palette control is given over each frame and a palette editor allows palettes to be defined, loaded and saved. The VidiGrab software handles standard IFF files to ensure compatibility with all Amiga art and graphics packages.

FINDING YOUR WAY AROUND THE MANUAL

First read the Getting Started section on how to connect up your Vidi-Amiga and load the software. The software has been designed to be as intuitive as possible so feel free to play about with it and explore the various options. To take full advantage of Vidi-Amiga however, it is probably a good idea to follow the Guided Tour at some stage in order to familiarise yourself with the entire package.

A Reference section describing every feature of VidiGrab in detail can be found towards the back of the manual, this is the place to check up if you are having a problem or are not too sure how a particular feature operates. There is also a Glossary and a Quick Reference chart showing each option available from the menu, panel and keyboard.

If you are unfamiliar with the operation of the Amiga then a look at your User

Manual will do no harm, terms such as double-click, drag, requester and gadget are used throughout this manual so it may help to know what they actually mean. Calling up a menu is done in the normal Amiga way by holding down the right mouse button, moving up to the required menu item and releasing the button.

We hope that Vidi-Amiga will open up experimentation in the field of computer graphics and art to a much wider audience. It is also ideally suited to the production of professional video and presentation applications. If you have developed programs or videos with Vidi, or have any comments, suggestions or special requirements from the package, we would be most interested to hear from you - user feedback is always of value. Amiga development is continuing and from time to time software upgrades will be available and we hope to incorporate your ideas.

GETTING STARTED

Your Vidi-Amiga system consists of:

- Vidi-Amiga interface (the black box)
- Phono-phono video cable
- Vidi-Amiga software on a 3.5" disk
- Registration card
- This manual

To use Vidi-Amiga you will also need the following:

- An Amiga computer with at least 512K of memory
- A video source - may be a VCR, video camera etc.
- Suitable cable to Vidi hardware if not phono-phono
- If using Amiga-1000, a standard F/F RS-232 gender changer

Connect Vidi-Amiga to the parallel port at the back of your Amiga, the 9-pin D-plug is used to power the interface and must be plugged into the second joystick port. If care is taken, Vidi may be connected or disconnected while the computer is on but this must be done at your own risk - the worst that can happen is a machine reset.

Now connect a suitable video source to the phono connector on the interface. All video recorders have some form of Video Out via a Phono, BNC, or SCART connector and an appropriate cable or adaptor may be bought from an electrical supplier. Rombo is able to supply a variety of adaptors.

To load the VidiGrab software, reset your Amiga and insert the supplied disk in drive zero, the software will load automatically. NOTE: This process does not load Workbench and upon quitting VidiGrab you will be presented with a CLI, type

VIDI-AMIGA

LOADWB [RETURN] ENDCLI [RETURN] to enter the normal Workbench environment, or you may type VIDIGRAB [RETURN] to re-load the program. VidiGrab can be loaded from Workbench by double-clicking on its icon which can be found in the Vidi drawer but this only works if you booted up with the Vidi disk.

To avoid any problems with disk corruption, the first time you load the Vidi software please do the following; select Quit from the VidiGrab Project menu and answer Yes to the prompt. Now type DISKCOPY DF0: TO DF0: [RETURN] from the CLI (you may use TO DF1: if you have more than one drive). Follow the prompts until the disk is backed-up. Now reboot the software from your backup and keep the original safe - NEVER use the original disk unless you are backing it up and DON'T save any files on it. If you have any problems with the disk supplied, eg. it does not load the VidiGrab program, please contact Rombo direct on (0506) 414631.

The latest information on Vidi-Amiga can be found in a ReadMe file in the Vidi drawer, type MORE README [RETURN] from the CLI or double-click over the ReadMe icon from Workbench.

GUIDED TOUR

By this time you should have connected up your system, made a backup, re-booted VidiGrab, and are probably wondering what it can actually do. The aim of this section is to guide you through most bits of VidiGrab without going into too much detail - you can always check the Reference section for more information.

Grabbing frames

We'll start by grabbing a sequence of frames - move the mouse pointer over the word Grab at the left-hand side of the Panel bar. Clicking the left mouse button once should start the grab, if not, check that your video source is running and properly connected to the interface. Use left / right cursor keys to adjust the brightness and up / down to shift the frame. To halt the grab, press any other key or click the mouse.

A succession of frames will have been grabbed into memory, clicking on Fram shows a selection of frames in miniature, click on one to select it. The number beneath Fram on the panel is the current frame being displayed which may be changed by clicking over the arrows at either side. To replay these frames, you should select Anim to cycle through the frames until stopped by pressing a key or clicking the mouse. You'll notice that frames are replayed much faster than they are grabbed so you can slow them down by changing the value under Anim on the panel with the nudge arrows.

The VidiGrab software has several ways of selecting various options, clicking on the Panel or changing a value with the nudge arrows are two ways. VidiGrab also has menus which are obtained by holding down the right mouse button, moving to the top of the screen then down to the desired option. When the mouse button is released, the option under the pointer is chosen or switched ON or OFF for some items on the Settings menu. Most options have a key shortcut which is displayed in the menu. You may use any method of selection as many features are available from the panel, menu and keyboard.

If you're only interested in grabbing one frame, try changing the Autoadvance and One frame settings from the menu bar. Autoadvance OFF grabs into the current frame rather than successive frames, One frame only grabs a single frame. When Autoadvance is OFF, you may also select Fast grab to catch the right moment (reduce the Grab delay beneath Grab on the panel to ensure maximum speed). Re-read will merely show the last frame grabbed.

HELD frames and the Palette Editor

Once you are happy with a frame, it is a good idea to make it HELD by clicking underneath Stat or pressing H, this ensures that it cannot be overwritten unless specifically requested. HELD frames may be shown using the Carousel which has its own delay and operates in a similar manner to Animate.

Frames are always grabbed in 16 shades and by default these are shown as grey, but by changing the frame palette number (underneath Pal on the panel) you can display the frame in various colours. Clicking on Pal itself gives you access to the Palette editor.

Choose a palette that you don't like much and select ink 8 by clicking on its coloured box. Change the ink's Red, Green and Blue content to give the desired colour. To fill in the other colours in the palette, click on ink 8 and while holding down the mouse button, drag the pointer over to ink 0 and release. All the colours in between will have been smoothed automatically - do the same from 8 to 15 and you have a new palette. Simple. It is worth experimenting with colour smoothing to get a feel for it, eg. you may create palettes which go from black through red and yellow to white. Click on EXIT or press any key to return to the main panel.

Saving and Loading

You will at some stage want to save frames to disk and this is achieved with the Save as menu option. Insert a disk with at least 40K free space, select Save as and press the right mouse button then click on the correct drive name - only save to RAM disk if you are sure there's plenty of room. Directories are entered by clicking on their name, and the File gadget should be used to type in a filename. Click OK or CANCEL to exit.

The Load and Delete options work in a similar way. Try various combinations of these on a blank disk with some unimportant pictures to familiarise yourself with these options. Note that frame titles are remembered and can be seen in the Frame select display, you can use Save to save a frame under its existing name.

Cut, Put and Clipboards

Frame editing is performed with Cut and Put; use Cut to click and drag out an appropriately sized window, and Put to copy this window to another part of the frame or another frame. Note that if you overwrite the Cut area any subsequent Put will use the new window, even if the entire frame has changed. For more advanced editing a Clipboard may be allocated for storing several clippings, this is done via the Clipboard option in the Settings menu.

If a Clipboard is allocated and in use a Cut from another frame will flip to the Clipboard and allow you to place the clipping, and Put allows selection of a clipping to paste into the frame. Although you may only have one Clipboard at a time, it can contain up to 40 non-overlapping clippings. If Cut or Put is selected from the Clipboard frame itself (ie. the frame has the status of CLIP) they allow you to delete or copy a clipping respectively.

If want to retain all clip information but do normal Cut and Puts for a while, switch the Use clipbd. setting OFF. Cut and Put will behave as if there were no clipboard until this is switched back ON. To get rid of the clipboard entirely use the Clipboard option again, doing this will lose all clip information but the screen remains intact. Clipboards may also be Loaded and Saved with the clip information being saved in a separate .clip file.

Window grabbing

To achieve more complex animations, you may Grab into a window. The Grab window is defined in a similar way to Cutting from a frame, but selecting Set window or Win. There are two types of windows, INSide and OUTside as well as the default OFF, these are displayed under Win on the panel. When a window is selected, Grab only updates parts of a frame, leaving the remainder as it is. Try grabbing different window animations with Autoadvance ON - some interesting effects can be created...

Well, that about wraps it up - it will probably take you a while to understand each option fully but don't be afraid to experiment. If you accidentally ask the program to do something radical it will check to see if you are sure before going ahead - eg. saving over an existing file or clearing all the frames. Good luck.

REFERENCE SECTION

PROJECT MENU

New

Every frame is cleared, given the default palette and made FREE. If a clipboard is assigned, it will be cleared but retains its CLIP status. You may prefer to use Clear or Clear FREE from the Options menu.

Load (L)

Upon selecting Load, a File Requester appears in the Workbench screen, after selecting a valid filename and VidiGrab will attempt to load an IFF picture with accompanying palette into the next FREE frame. The frame is made HELD upon loading successfully and its palette is matched with an existing one where possible. Also see Save, Save as and Delete.

Operation of the File Requester is straightforward; the scroll bar or arrows at the right move through the current directory. Clicking on a filename will copy it into the File gadget, double-clicking selects a file and exits the Requester. You may change directory by clicking on the Parent gadget or a directory name. Clicking over the Drawer or File string gadget allows you to type a name directly from the keyboard. RETURN redisplay the directory or exits the Requester with the given filename.

Clicking the right mouse button or the Drives gadget displays a list of logical device names which may be selected. To cancel the operation, click on CANCEL or the close window gadget, OK will exit the Requester with the selected filename.

Save

The current frame along with its palette is saved to disk under its existing name, if the frame has no name then an error is reported (use Save as instead). After saving a frame, VidiGrab will move to the next frame with the same status, this is to make saving sequences slightly easier. Files saved are standard IFF. See also Save as, Load and Delete.

Save as (S)

This option is similar to Save except that you are prompted with the File Requester before saving (see Load for more details). Note that even if you decide not to save the frame its title will be updated - you may want to use this as a way of naming frames. See also Save, Load and Delete.

VIDI-AMIGA

Status (Help)

A copyright message is displayed along with the amount of free memory, number of frames and how many have FREE status. Clicking Stat on the Panel also gives this display. See Panel / Frame status.

Delete (Del)

Allows you to delete files on disk with the File Requester (see Load for details), will keep prompting for filenames until CANCEL is selected. NOTE: files which are deleted cannot be recovered.

Quit (Q)

After prompting to ensure that you really mean it, Quit will exit VidiGrab, returning all allocated memory to the system. NOTE: unless first saved to disk, all frames are lost forever.

OPTIONS MENU

Grab (G)

Starts grabbing video frames, also available from the Panel. If Autoadvance is ON, grabbing commences from the next FREE frame, and if One frame has been selected only a single frame is grabbed. You may set the delay between each grab and Interrupts may occur. Brightness is adjusted with the left and right cursor keys, Vertical frame offset with up and down, Interrupts may be switched ON or OFF with I, pressing any other key or clicking the mouse will halt the Grab.

If a grab window is selected, only a portion of the frame will be updated. When grabbing a window with Autoadvance you will see the original frames animating at the same time which may be used to create some excellent multi-window animations.

Also see Re-read, Fast grab, Animate, Settings: Set interr, Interr. on, Autoadvance, One frame and Set window, Panel: Grab delay, Bri, Window type, Frame status... in fact most of the rest of this manual.

Re-read (R)

The frame currently stored in the interface is copied into a FREE frame, the following FREE frame if Autoadvance is ON. Also see Grab, Fast grab, Settings: Autoadvance and One frame.

Fast grab (Z)

This option is only available when Autoadvance and Grab window are OFF. Is similar to Grab but frames are displayed in only 4 shades until the grab is halted, the interface will then be Re-read in the full 16 shades. Also see Grab, Re-read, and Settings: Autoadvance.

Animate (A)

FREE frames are shown in a continuous loop and Interrupts will occur if turned ON by pressing I. You may set the delay between each frame from the panel. See also Grab, Carousel, Settings: Set interr, Interr. on and Panel: Animate delay, Frame status.

Carousel (C)

Similar to Animate except HELD frames are shown and Interrupts do not have any effect - is also available on the Panel. See Animate, Panel: Carousel delay and Frame status.

View (space)

This option lets you see the entire frame without menu or Panel bars. Clicking on the picture area has the same effect.

Frame sel. (F)

Up to sixteen frames are shown in miniature, if more are available arrows in the corner of the screen may be clicked to move the display. When choosing a frame, a box is drawn around the frame and its palette is displayed - you may select it by clicking once. See Panel: Frame number.

Cut (X)

Allows you to define an area of a frame for use with Put - note that this area remains defined until another is selected, even if the frame changes (see Settings: Set window for details on defining a window).

If a Clipboard is currently in use, VidiGrab will automatically jump to the CLIP frame allowing you to position the clipping. As with Put, its location and size are then stored internally. It is not normally useful to overlap clippings. If the current frame is the clipboard then Cut allows you to select a clipping to be deleted. Also see Put, Clear, Settings: Clipboard, and Use clipbd.

Put (P)

Used in conjunction with Cut, areas may be copied between frames, if a clipboard is in use, you must first select a clipping to copy. When not using the clipboard, take care not to overwrite the Cut area since there is no intermediate buffer. Placing the clipping is similar to the operation of Settings: Move window. Selecting Put on the CLIP frame will duplicate the selected clipping. Also see Cut, Settings: Clipboard, and Use clipbd.

Quantize

Copies a frame into the following FREE frame and if requested, reduces it to the number of shades requested - 2, 4 or 8.

Clear

Clears the current frame, gives it the default palette and FREES it. NOTE: Cleared frames cannot be recovered... so be careful. Also see Clear FREE and Project: New.

Clear FREE

Clears all FREE frames. NOTE: these frames will be lost completely (there are no key shortcuts to any of the clear operations to prevent them being selected by accident). Also see Clear and Project: New.

Initialize

Resets the Vidi hardware and informs you of the video signal type connected. You MUST select this option when you swap video signals or the interface is removed and re-connected, (to allow use of the parallel port for example), otherwise frames may not be Grabbed correctly or the display may jitter. An Initialize is performed automatically when you load VidiGrab. See also: Grab, Re-read and Fast grab.

SETTINGS MENU

Clipboard

If there is no clipboard, the current frame is Cleared and given CLIP status, otherwise the existing clipboard will be switched off. In this case, although the frame data is retained, all clip information is lost and unrecoverable. Also see Use clipbd, Options: Cut, Put, and Clear.

Use clipbd. (B)

This option defines what happens if there is a CLIP frame and Cut or Put operations are taking place. When Use clipbd. is ON, Cut will switch to the clipboard frame and Put will allow selection of a clipping. When OFF, the clipboard information is not lost but Cut and Put will behave as if there were no clipboard, ie. copy directly. See also Clipboard, Options: Cut and Put.

Set grid

Allows you to select an imaginary grid size which all windows corners are snapped to. The lines may be on character (8x8 pixels), quarter screen or sixteenth screen boundaries. The grid is used by Set window, Move window and Options: Cut, or Put operations.

Grid on (#)

Switch the use of the grid temporarily OFF or ON, you may use the key shortcut even while actually performing a window operation. See above for more details.

Coordinates (Y)

When ON, window operations will display the window start coordinates or dimensions in the bottom-left corner of the screen. The key shortcut may be used during the positioning or sizing of a window.

Set interr.

The next HELD frame will be used to interrupt any Grab or Animate operations at regular intervals. You may define the interval between each interrupt and the duration for which the frame should be displayed. A value of zero for either of these settings is taken to mean the current Grab or Animate delay. Also see Interr. on, Options: Grab and Animate.

Interr. on (I)

This switches the Interrupts feature ON or OFF, see Set interr.

Autoadvance (V)

Takes effect when Grabbing a series of frames. If Autoadvance is ON the frame number will become that of the following FREE frame before each Grab - this allows you to later Animate a series of frames. When Autoadvance is OFF, the current frame is used for any Grab operation. Note that Fast grab is only available

with Autoadvance OFF. See also One frame, Options: Grab, Re-read and Fast grab.

One frame (O)

When ON, Grab operations will grab only a single frame and return to the Panel display - the default is continuously grab frames until halted. If used in conjunction with Autoadvance, this feature allows stop-frame animation by allowing preparation of the picture between frames. Also see Autoadvance, Options: Grab, Re-read and Fast grab.

Set window (W)

Allows an area of the screen to be used for grabbing into. You may then Grab either inside or outside this window area. To set a window, click on the top-left corner and drag the pointer down to the right until the desired size is set then release the mouse button. You may abandon a window by pressing the ESC key in which case the window will remain unchanged. Coordinates and the Grid may be switched ON or OFF while defining the window by pressing Y or # respectively.

After defining the Grab window, the Window type on the Panel is automatically set to INSIDE unless you have already selected OUTSIDE. Also see Coordinates, Set grid, Grid on, Move window, Options: Grab and Panel: Window type.

Move window (M)

This allows repositioning of the Grab window without changing its size. Again, you may abandon using ESC, toggle the Grid with #, or Coordinates with Y. The window outline will be shown on screen and you can position it with the mouse, clicking once will store the new position. As with Set window, the Window type is altered.

Palette

Allows editing of the shades used to display frames. A new Panel appears along with boxes showing the sixteen colours in the current palette. Note: palettes 1 thru 9 are global (ie. identical for each frame, changing these will alter all frames with that palette) with palette 1 being the default palette. Palette 0, however, is specific to each frame and editing will not affect other frames.

The current ink may be changed by selecting a coloured box or a point on the picture, the colour of the pixel under the pointer will be used. To actually change an ink's colour you must adjust the Red, Green or Blue content of that ink in a similar way to adjusting values on the main Panel. A smooth transition between

colours can be achieved by setting the colour of the first and last inks, clicking upon the first and dragging to the last. All inks inbetween will be smoothed.


Palettes can be Loaded or Saved by clicking on the relevant box. Note that if you Load a picture file from the palette editor only its palette will be used, the picture itself is ignored. Select EXIT or press any key to return to the main Panel.

THE PANEL

The panel displays various settings associated with menu items as well as duplicates of some commands. In general the command is above and the setting underneath. The commands Grab, Win, Cut, Put, Anim, Caro, Frame, Stat and Pal are identical to their menu counterparts (Win is equivalent to Set window). There follows a description of the various settings and their names progressing from left to right;

Grab delay

This represents the delay between each frame grabbed and may be between 2 and 99/50ths of a second but due to limitations of the Amiga parallel port, frames cannot be read back much faster than 15/50ths seconds. Selecting a lower setting than this will give no further speed increase. See Options: Grab and Fast grab.

Bri ()

This is the software brightness control which varies from 0 thru 7, may also be changed while grabbing frames. The brightness setting only takes effect when a frame is Grabbed, it will not alter the picture after it is in memory. Clicking over Bri restores the default of 4. See Options: Grab and Fast grab.

Window type (T)

This may be OFF (grab whole screen), INS (grab inside window), or OUT (grab outside window) and only takes effect when using one of the Grab options. See Options: Grab, Re-read, Fast grab, Settings: Set window and Move window.

Animate delay

The delay between each frame in Animate, note that it takes at least 2/50ths of a second to display each frame. Also see Grab delay and Options: Animate.

Carousel delay

As Animate delay except sets the delay for the Carousel. Whilst Animate is usually used for a rapid sequence of frames, the Carousel is more often a utilised for slower picture gallery effect. See Options: Carousel.

Frame number (0-1 F1-10)

Allows you to change the current frame number, keys 1-9, 0 for 10, and F1-10 for frames 11-20 may also be used. Also see Options: Frame sel.

Frame status (H)

You may set each frame's status to be FREE, HELD or CLIP. FREE frames are used for Grab with Autoadvance and Animate whilst HELD frames are used in the Carousel and are not overwritten unless specifically requested. See Options: Grab, Animate, Carousel and Settings: Clipboard.

Frame palette

The palette number of the current frame is shown here. See Settings: Palette for more details.

APPENDIX A: INSTALLING VIDI ON A HARD DISK

You will need to copy the VidiGrab and VidiGrab.info files into an appropriate drawer which may be done from Workbench by dragging the icon to its new home. VidiGrab also needs certain libraries which may be found in the LIBS directory; arp.library, vidi.library, mathieeedoubbas.library and mathieeedoubtrans.library. To copy a file from the CLI, type `COPY Vidi-Amiga:libs/"name" TO DH0:libs [RETURN]`, "name" being the name of the file, DH0: is the name of the hard drive. You may find that the last two library files are already on your hard disk in which case you needn't copy them (check by using `DIR DH0:libs`).

Once all these files are copied successfully, you should be able to run VidiGrab by clicking on its icon held in the hard disk.

APPENDIX B: TECHNICAL SPECIFICATION

Hardware

Vidi-Amiga requires a 1v composite video signal and samples to 4-bit resolution at approx. 6MHz using a flash A/D converter. A complete frame is grabbed to a high-speed internal frame store in 20 milliseconds ie. a single video frame. Hardware brightness and contrast controls set the floor and width of the digitised data.

The standard unit is fitted with 32K of RAM giving over 200 lines of 320 pixels per line in 16 shades (or grey level). This is factory upgradable to 40K giving 256 lines.

Software

Grabs moving pictures into multiple framestores

Animation at up to 25 frames per second

Provision for stop-frame animation

Grab to windows with multi-window animation

Saves and loads IFF picture and palette files

Software brightness control

Cut and paste editing between frames

Optional clipboard facility

Interrupt feature for displays and demonstrations

Palette editor with colour smoothing

Works with interlaced or free-running sync

VIDI-AMIGA

APPENDIX C: USER HARDWARE ADJUSTMENTS

A good quality video signal contains a vast amount of information, it comprises signals of over 5Mhz, with hundreds of different intensity levels. Vidi-Amiga has to reduce this to a screen of 64000 pixels each having only one of 16 intensity levels - don't expect perfect results!

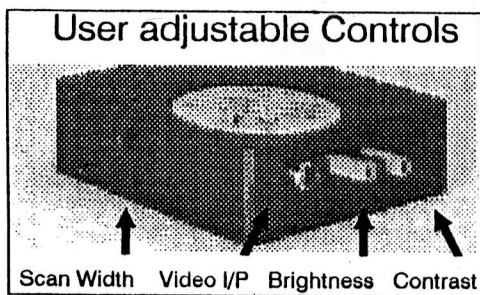
All video signals are equal, but some are more equal than others - to help overcome these variations, Vidi-Amiga has the following adjustments available.

SCAN WIDTH - This alters the digitising frequency, compressing or expanding the video signal horizontally. This is factory set to give the correct aspect ratio, when viewed on a 'standard' television screen.

BRIGHTNESS - This sets the mean level for the keyboard brightness controls, and hence the upper or white level for the digitiser. With a BRI value of 4, adjust this to give a good light/dark balance on an 'average' picture.

CONTRAST - This sets the lower black reference level. With this set fully clockwise, this is clamped to the incoming black level and all the video signal is digitised.

To achieve best results on difficult pictures, careful adjustment of the BRIGHTNESS and CONTRAST controls may be required.



APPENDIX D: TECHNICAL SUPPORT

Contact us if you have any problems, suggestions or special requirements - Amiga technical support is free from Rombo;

Rombo Productions (Amiga Technical Enquiries)
6 Fairbairn Road
Kirkton North
Livingston EH54 6TS

Tel: (0506) 414631 Fax: (0506) 414634

APPENDIX E: GLOSSARY

Clipboard	A VidiGrab frame that has been assigned CLIP status and is used to store portions of pictures.
Clipping	An item held in the Clipboard.
Device	A Logical Device.
Directory	Files on disk are grouped within directories.
Frame	Each picture in VidiGrab is called a Frame, you may have many Frames in memory simultaneously but usually only one is visible on the Screen.
Grab	The action of taking a Video Frame and digitizing it in hardware into a form readable by the Amiga. Frames are always grabbed 320 pixels wide in 16 shades.
IFF	Interchange File Format is a file type used by many Amiga packages, it may store picture and palette data.
Interrupts	VidiGrab allows you to define an interrupt frame with which to periodically interrupt Grab or Animate operations.
Logical Device	May be a peripheral such as a disk drive like DF0:, printer PRN:, or a pathname such as DEVS:. You may write to each logical device in a similar manner.
Menu	The pull-down-menus at the top of the screen which are accessed by holding the right mouse button down and releasing over the desired item.
Palette	A collection of colours used to display a Screen, in VidiGrab each Frame may have its own palette and all palettes may be edited.
Panel	The bar at the bottom of the VidiGrab Screen, may be clicked on to select options or change settings.
Parallel Port	The connector at the back of the Amiga into which the Vidi interface or a Centronics printer is plugged.
Screen	VidiGrab opens its own screen which is used for all operations except the File Requester which is displayed on the Workbench screen.
Window	In VidiGrab, this is a rectangular area of the screen which may be Grabbed into or copied to another Frame.

APPENDIX F: VIDIGRAB QUICK REFERENCE

Function	Menu Item	Key	Panel
Animate delay			Anim*
Animate FREE frames	Options: Animate	A	Anim
Autoadvance ON OFF	Settings: Autoadvance	V	
Carousel delay			Caro*
Carousel HELD frames	Options: Carousel	C	Caro
Clear all frames	Project: New		
Clear current frame	Options: Clear		
Clear FREE frames	Options: Clear FREE		
Clipboard ON OFF	Settings: Clipboard		
Clipboard usage	Settings: Use clipbd.	B	
Coordinates ON OFF	Settings: Coordinates	Y	
Cut window	Options: Cut	X	Cut
Delete disk files	Project: Delete	Del	
Frame number		0-9/F1-10	Fram*
Frame palette			Pal*
Frame select	Options: Frame sel.	F	Fram
Frame status		H	Stat*
Grab brightness		← →	Bri*
Grab delay			Grab*
Grab frames	Options: Grab	G	Grab
Grab one frame	Settings: One frame	O	
Grab quickly	Options: Fast grab	Z	
Grab window size	Settings: Set window	W	Win
Grab window position	Settings: Move window	M	
Grab window type		T	Win*
Grid ON OFF	Settings: Grid on	#	
Grid size	Settings: Set grid		
Initialize Vidi	Options: Initialize		
Interrupts ON OFF	Settings: Interr. on	I	
Interrupt settings	Settings: Set interr.		
Load frame	Project: Load	L	
Load palette	Settings: Palette		(Load)
Put window / clipping	Options: Put	P	Put
Re-read interface	Options: Re-read	R	
Quantize frame	Options: Quantize		
Quit VidiGrab	Project: Quit	Q	
Palette editor	Settings: Palette		Pal
Save frame	Project: Save (as)	S	
Save palette	Settings: Palette		(Save)
Status & credits	Project: Status		Stat
Vertical frame offset	Options: Grab	Help (↑↓)	
View entire frame	Options: View	space	

* signifies value displayed underneath specified option
 () choose this option after selecting menu item

VIDI-AMIGA was originally conceived as a low cost/high performance frame grabber for the COMMODORE AMIGA A500 computer. Consequently ALL software and hardware development so far has been carried out using standard 1/2Mb and 1Mb A500 systems.

No tests have been made using different processors, 68010, 68020 etc. - accelerator boards or co-processors, simply because we have not had access to them. This will be rectified in the near future.

VIDI-AMIGA is designed to connect to an A500 compatible parallel port. If you manage to plug **VIDI-AMIGA** into ANY other port, damage to both **VIDI-AMIGA** and your computer could result.

1. COMPUTERS

A1000: Owners of this computer will know that the parallel port on this machine has a MALE connector. The A500 port has a FEMALE connector, this was done because Commodore CHANGED THE PIN-OUT!. On the A1000 connector, pin 23 supplies +5v and pin 25 RESET, while the A500 has these signals on pins 14 (+5v) and 16 (RESET).

You cannot use a standard GENDER CHANGER with **VIDI-AMIGA**, as its power comes from both the parallel and the joystick port. A modified adaptor is required which swaps pins 23/25 to 14/16. ROMBO can supply a suitable adaptor, our **A1000 GENDER CHANGER**.

A2000: **VIDI-AMIGA** will fit these machines, if you use the composite monochrome video output. A better solution is to use an extension ribbon cable for the parallel port, we call it an A500/2000 **P/PORT EXTENSION CABLE**. Alternatively we can supply a parallel port switching box, complete with extension ribbon cable. This will allow you to have **VIDI-AMIGA** and your printer connected, and switch between them, our A500/2000 **P/PORT SWITCHER**.

Because **VIDI-AMIGA** drives the parallel port at its maximum speed, some extension leads are not suitable. Most notably the round moulded type can cause problems, we only supply and recommend those made from **RIBBON** cable.

3. VIDEO SOURCE

VIDI-AMIGA is designed to accept a composite 1v pp Black/White or Colour video signal. These 'STANDARD' signals vary considerably from source to source, to allow for this **VIDI-AMIGA** has Brightness and Contrast adjusters fitted. Using these controls most signals can be accommodated.

Video output connectors vary with different machines, the cable we supply is a Phono-Phono, which allows direct connection to a large number of Video Recorders etc. If your video output is different, we can supply **BNC/Phono** and **SCART/Phono** adaptors, or if full details are supplied, make up special adaptors to your needs.

VIDI-Amiga was originally powered from both the parallel and the joystick ports of your computer, the manual at present supplied tells you to plug into the joystick port.

Subsequent tests have shown that not all COMMODORE AMIGA computers are equal, some new (and old) versions are unable to supply the extra 50mA required to power VIDI via the joystick port.

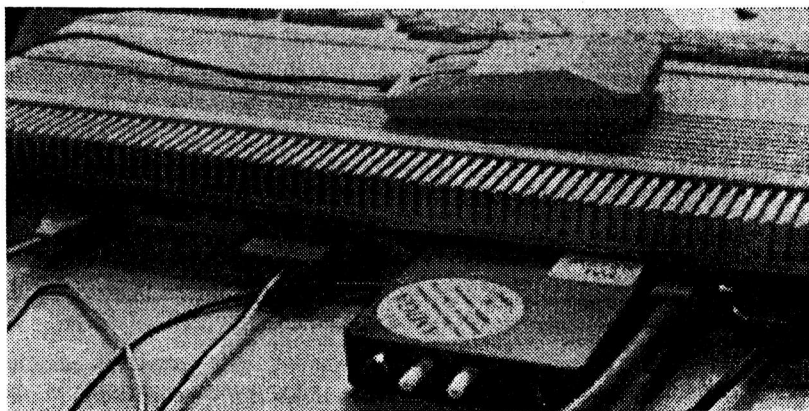
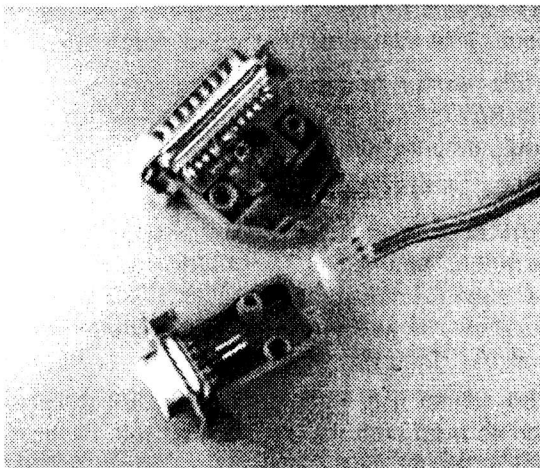
To solve this problem **VIDI-Amiga** is now supplied with a lead and two adaptors. One plugs into the external disc drive socket on the back of your computer, the other (already fitted), into the joystick port.

If you find that when grabbing, the pictures move sideways slightly, then this can be rectified by using the Disk drive adapter.

To change adaptors simply unscrew the adaptor cover, remove the 2 pin plug and fit this to the new adaptor, and re-fit the covers.

If you have an additional disc drive fitted to your AMIGA, then simply plug this new lead into its own 'daisy chain' socket.

The picture below shows how **VIDI-Amiga** should be connected on an A500 Computer.



If in doubt give our technical support a ring. (0506) 414631