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STINGER TRANSITIONS

The Stinger transition is a popular kind of transition that involves playing a graphic animation along with a perfectly timed mix transition. Stinger™ transitions are designed into the Transition Block of the Overture series switchers. The Stinger transition takes advantage of the keyer that is built into the transition block leaving all of the upstream and downstream keyers available for compositing your output. The following chapter explains how to build and perform stinger transitions on the Overture series switchers.

PERFORMING A STINGER TRANSITION (OVERTURE 1)

1. To select the Stinger transition type, press both MIX and WIPE buttons simultaneously. You will notice that both buttons are lit yellow indicating that a 5th transition type is selected.
2. Specify the fill source for the transition keyer. If Key memory is not set on the fill source you will also have to specify the cut source.
3. In the Stinger File menu, rotate the knob under File to select a saved stinger setting.
4. Press the RCL STNGR button to load the corresponding stinger settings.
5. Press AUTO to take the transition.

PERFORMING A STINGER TRANSITION (OVERTURE 2)

1. To select the Stinger transition type, hold down the SHIFT button and select DVE as your transition type. You will notice that the button lights green to indicate that a shifted transition type is selected.
2. Specify the fill source for the transition keyer. If Key memory is not set on the fill source you will also have to specify the cut source.
3. In the Stinger File menu, rotate the knob under File to select a saved stinger setting.
4. Press the RCL STNGR button to load the corresponding stinger settings.
5. Press AUTO to take the transition.

CONFIGURING STINGER SETTINGS

When the Stinger transition type is selected the switcher automatically selects the transition keyer (TRANS) on the destination bus and the system control automatically navigates to the Stinger menu. You can manually navigate to the Stinger menu using the system control by pushing the following: HOME > TRANS > STNGR.

The Stinger transition requires two additional sources, a fill signal and a cut signal for the transition block keyer, to perform the transition. In order to specify the fill and cut signal for the transition block keyer,

1. First, verify that the TRANS button is selected on the destination bus. If it is not selected, select it by pushing the TRANS/CUT button.
2. Select a source for the fill signal on the select bus. If Keymem is not set or enabled then you will have to manually specify the cut signal.



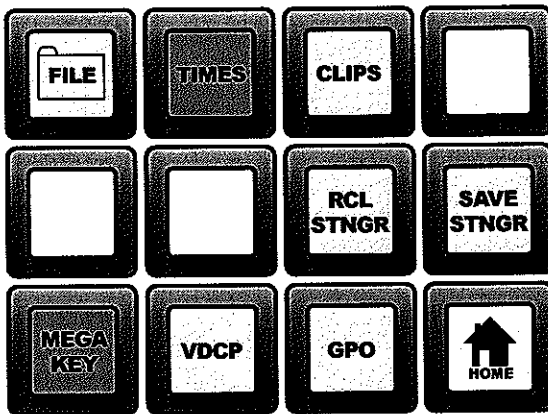
IMPORTANT: If *Keymem* is set and enabled when you select a fill signal the matching cut signal and all of the associated settings will be restored automatically.

3. To specify the cut signal, hold the SHIFT LOCK button next to the destination bus and select a source for the cut signal on the select bus.



IMPORTANT: The transition block keyer is a linear keyer that does not have its own interface for configuring a key. If you manually set the cut signal the transition block keyer assumes the settings for a shaped key. In order to use a non shaped key, you must enable *Key Memory* and use a source that has its key memory set.

Once the fill and cut signals for the transition block keyer have been specified you can configure the stinger communication protocol, adjust the timing, and specify the clips to use for the transition. All of these settings are available through the Stinger menu of the system control.



Stinger Menu

MEGAKEY / VDCP / GPO

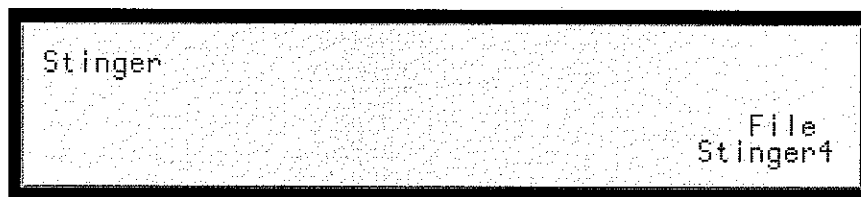
These buttons define the type of communication that will be used to control/trigger an external device to play the animation. GPO is always available as an option however availability of Megakey and VDCP control depend on the edit port settings of your switcher. The Edit port must be enabled and set to either Megakey or VDCP to have those options on the Stinger Menu. You can configure your Edit port from the System Control by pushing the following: HOME > SETUP > EDIT PORT

Megakey – Use this setting if you have purchased the optional Echolab Megakey/Clip Player hardware. Please refer to appendix 2, Megakey for additional information about the Megakey option.

VDCP – Short for Video Disk Control Protocol is used to communicate with VDCP enabled servers.

GPO – Short for General Purpose Output is the most basic type of control. The Overture series switchers have 2 GPO outputs that provide a momentary contact closure. The Stinger only controls GPO1. The choice of which GPO to control with the Stinger Transition cannot be user configured.

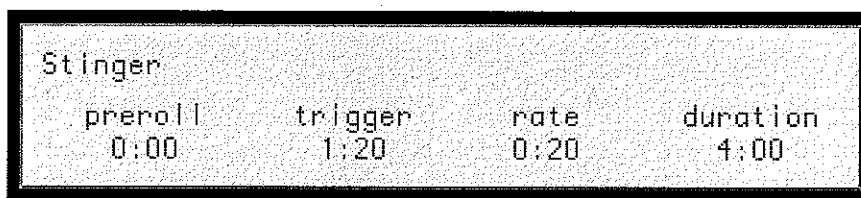
THE FILE MENU



The File Menu allows you to browse and recall previously saved stinger settings.

1. Rotate the knob under File to scroll through the saved stinger settings.
2. Press the RCL STNGR button to load the corresponding stinger settings.

THE TIMES MENU

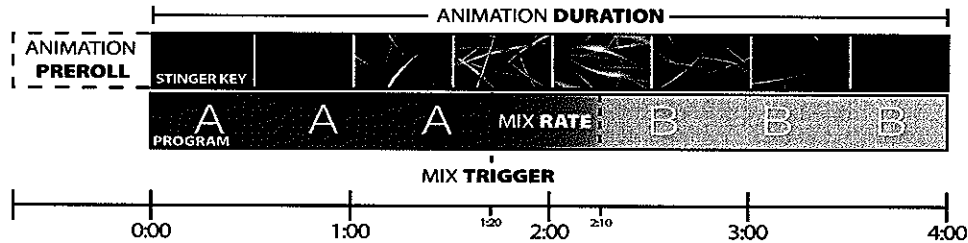


The Times menu is where you configure the timing for your Stinger Transition.

Animation Preroll	Preroll is the time that the animation device takes to start playing the animation. The device uses this time to load, cue and play the clip. Most modern disk based devices such as the Echolab MegaKey have a preroll time of 0. The maximum preroll time is 1:00 second.
Mix Trigger	Trigger is the point in time at which the switcher will start the mix transition. The trigger is also the transition point in the animation. This point is usually when the animation is almost full screen. This allows you to quickly switch from program to preview while the animation covers most of the screen.
Mix Rate	Rate specifies the duration of the mix between preview and program. The maximum rate is 3:29 seconds and the minimum rate is 1 frame. To specify a cut transition instead of a mix simply set the rate to 1 frame.
Animation Duration	Duration refers to the length of the animation. The maximum animation duration is 4:00 seconds.



IMPORTANT: It is important to understand that the Trigger, Rate, and Duration times are dependant on one another. For example the trigger + rate cannot be larger then the duration. Note also that the time displayed in the Transition Rate window is equal to the duration + preroll.



This diagram explains the relative position for each of the Times and the series of events that occur as the transition is executed.

Beginning of preroll - The external device that is used to play the animation is enabled via MegaKey, VDCP or GPO.

0:00 - The transition block keyer or Stinger Key is enabled and we are assuming that the animation is now playing and being keyed over the program output.

1:20 - The Mix transition is started because the trigger time was set to 1:20 seconds.

1:20 - 2:10 - A 20 frame mix is performed on the background video. The mix has a duration of 20 frames because the rate was set to 20 frames.

4:00 - The animation has finished playing, specified by the duration parameter, and therefore the transition block keyer or Stinger keyer is disabled. Note that the duration was set to 4:00 seconds.

CLIPS MENU



The Clips menu is available when MegaKey is selected as the external animation device. This menu allows you to browse available clips and assign them to the cut and fill channels of the MegaKey.

Fill/Cut Display	The Fill/Cut display tells the user which files are currently loaded into the cut and fill channels of the MegaKey device. Only the 1st 8 characters of the filename are displayed.
Clip Name	Clip name displays the file names of the clips that are available for use on the MegaKey device. Rotate the knob under Clip name to scroll through available files. Only the 1st 8 characters of the filename are displayed.
Set Fill	The set fill button is used to assign a clip to the fill channel. Rotate the knob under Clip name to scroll to the appropriate file and press the set fill button to assign that file to the fill channel. The Cut/Fill display is updated to reflect the new filename.
Set Cut	The set cut button is used to assign a clip to the cut channel. Rotate the knob under Clip name to scroll to the appropriate file and press the set cut button to assign that file to the cut channel. The Cut/Fill display is updated to reflect the new filename.

SAVING AND RECALLING STINGER SETTINGS

You may save or recall your stinger settings at any time from the Stinger menu. Stingers are saved and recalled with a number argument.

Save a Stinger

1. Type a number on the number pad
2. Press the SAVE STNGR button to save the stinger settings
3. The display will acknowledge a successful save with the message; Save Stinger (x), where x is the number you specified on the number pad.
4. Stinger settings are not automatically overwritten. To Overwrite a saved stinger you must hold SHIFT while pressing SAVE STNGR. If you attempt to overwrite a Stinger Setting that is already saved on the CF card you will receive the following error message; **shift to write**



IMPORTANT: Stinger settings are saved in a binary file on the switchers Compact Flash card. The file is located at the following path where X is your current mode of operation and Y is the number used to save the stinger settings. \Echolab\Mode(X)\Recalls\Stingers\STNG(Y).STG

Recall a Stinger

1. Type a number on the number pad
2. Press the RCL STNGR button to load the corresponding stinger settings.



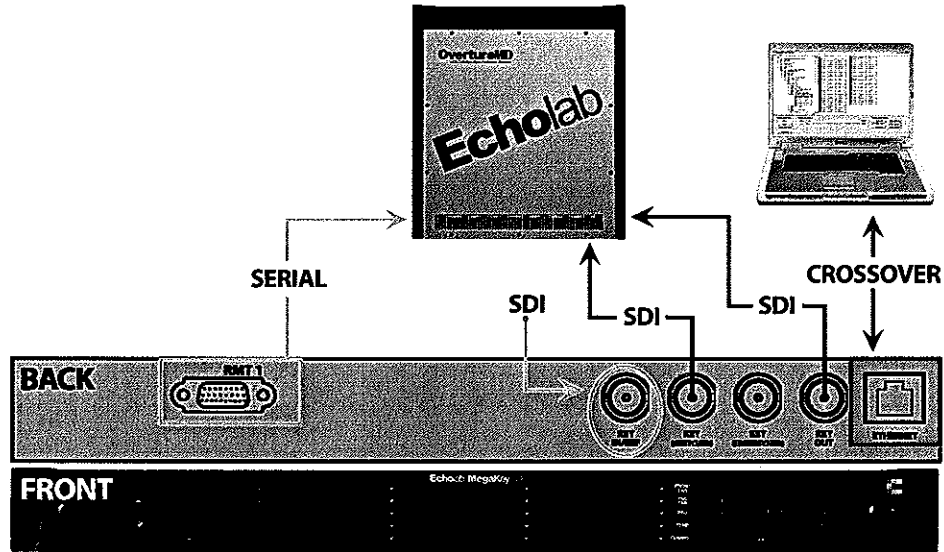
TIP: The Macro Editor can be used to recall stingers from a macro button

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MEGAKEYMD

The Echolab MegaKey is an external card that fits into an Echolab frame. The card holds 4GB of video and can be controlled from the Echolab Overture Panel. MegaKey is integrated as a clip player source for the Echolab Stinger feature and is also accessible from the 3rd party menu in the system control. The following section will illustrate how to properly connect the MegaKey. For information on how to use MegaKey refer to the chapter on Stinger and the chapter on 3rd party control.



IN/REF

The IN/REF connector on the MegaKey card must be connected for the card to operate. The video format of that input specifies the format and timing of the MegaKey card. Therefore if you are interfacing with an Overture MD switcher operating in 1080i mode you must provide an HD-SDI 1080i signal that is in time with the other switcher inputs. If you are using MegaKey with an Overture SD switcher operating in PAL then you must supply a PAL SD-SDI signal that is in time with the other switcher inputs.

CLIP OUT

The CLIP OUT connector outputs an SDI signal that should be connected to one of the digital inputs on the Overture Switcher. This output has a relay bypass so that in the event of a power failure on the MegaKey card this output will simply pass-through the IN/REF signal.

KEY OUT

This is the 2nd SDI output from the card and is typically used to output a KEY signal when the matching fill signal is being output through the 1st SDI output. This output should also be connected to a digital input on the Overture Switcher.

ETHERNET

The Ethernet connection is a 10/100 Base-T connection that must be connected to a computer with the MultiLogo software. The software is used to encode and transfer short clips for playback on the card. If connecting directly to a PC a crossover cable is required. Alternatively, this Ethernet port and the PC can both be connected to a hub using patch cables. The IP address of the card is hard coded and cannot be changed (this is a temporary limitation and will be addressed in a firmware update).

SERIAL CABLE

The MegaKey was shipped with a custom serial cable that must be connected for the switcher to communicate with the MegaKey. The 26pin side of the connector must be connected to the RMT1 connector on the MegaKey frame and the 9pin connector must be connected to the EDIT port of the Overture Switcher chassis.

CONFIGURING PC FOR USE WITH MEGAKEY

MegaKey was supplied with a CD that includes software required to convert and manage clips on the MegaKey card. The following section explains how to install the software and configure the PC so that it can communicate with the MegaKey.

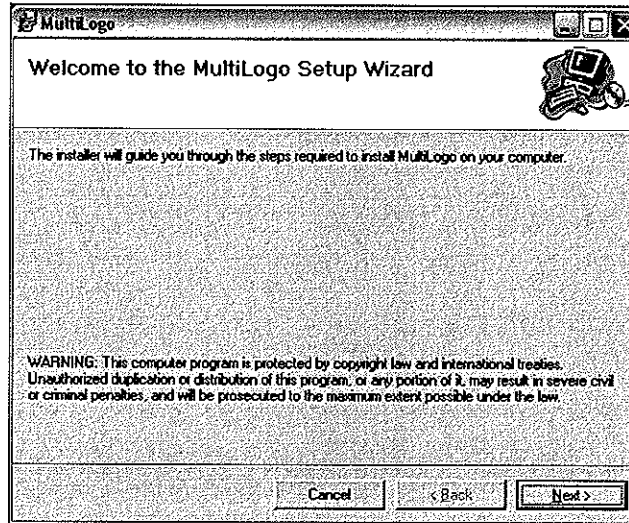
The software used to manage and convert clips for playback on MegaKey communicates with the card over Ethernet. You must have the Ethernet port on the MegaKey card connected to the ethernet port on your PC (Refer to the connection diagram).



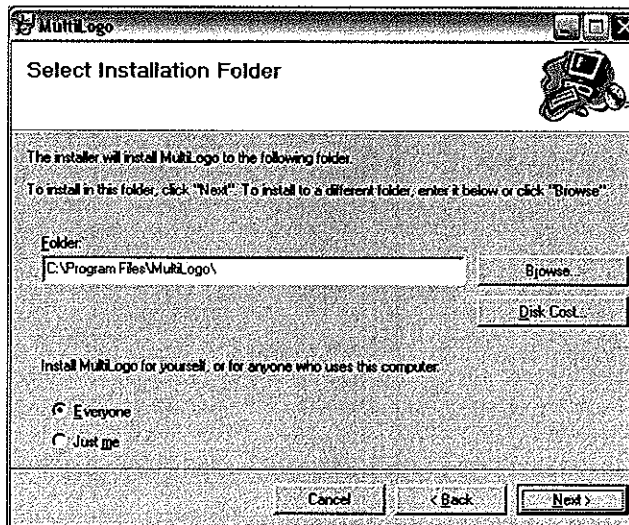
The front of the MegaKey card has a display, buttons, and a scroll knob that is used to get information about the device.

1. The first step in configuring the PC to communicate with MegaKey is establishing the IP address of the MegaKey card. Each card has a unique IP address which we can verify by using the controls on the front of the MegaKey card.
2. Open the Echolab frame so you can access the front of the MegaKey card.
3. Press ENTER, the display will say STATUS
4. Rotate the Scroll/Adjust knob until the display says IP ADDRESS
5. Press Enter, the display will show the 1st part of the IP address. Rotate the Scroll/Adjust knob to see the entire IP address. Make a note of the IP address you will need the IP address to verify the connection and configure the file management software.
6. Press BACK to return to the previous menu
7. Press BACK again to return to the home menu
8. Now that we have the IP address of the MegaKey card we will install the MegaKey software on the PC that is connected to the card via Ethernet.
9. Insert the MegaKey Software CD into your PC
10. Browse the contents of the CD
11. Launch the software installation by double clicking on Setup.exe
12. Follow the commands as indicated on each of the following images.

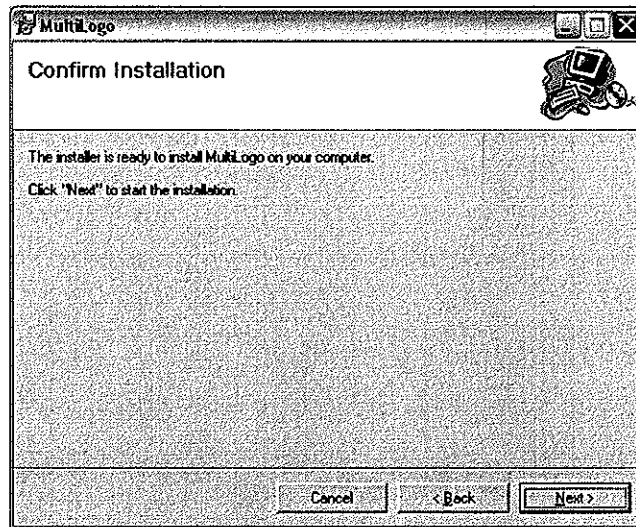
13. Click 'Next'



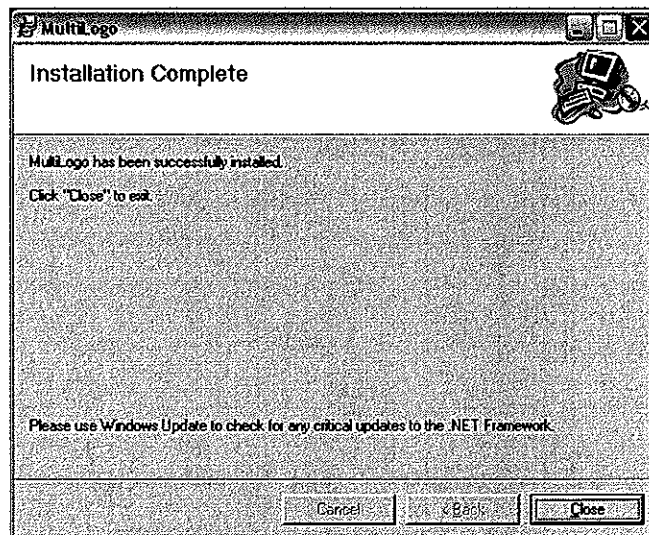
14. Click 'Next'. You may change the install location if required. We recommend keeping the default location.



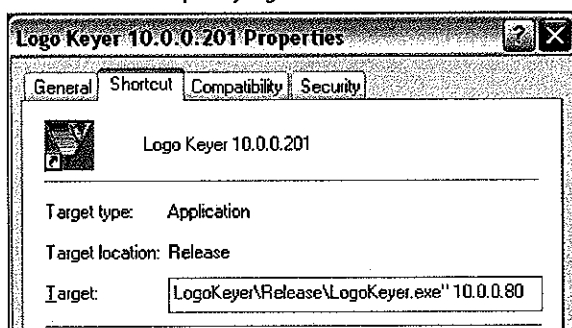
15. Click 'Next' to start the installation process.



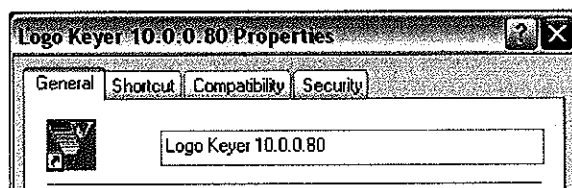
16. Once the installer has completed click 'Close'



17. Upon installation a shortcut is placed on the desktop called LogoKeyer. This shortcut needs to be modified with the boards IP address in order to communicate with the Megakey card.
18. Right click on the shortcut and select 'Properties'
19. On the Shortcut tab in the Target field, after the text "C:\Program Files\LogoKeyer\Release\LogoKeyer.exe", enter a space followed by the IP address of the Megakey board that you retrieved from the board in step 4. In our image below we are specifying IP address as 10.0.0.80



20. It is recommended that you update the name of the shortcut so that it clearly indicates the Megakey card being controlled. On the General tab, add the IP address of the card at the end of the Shortcut name.

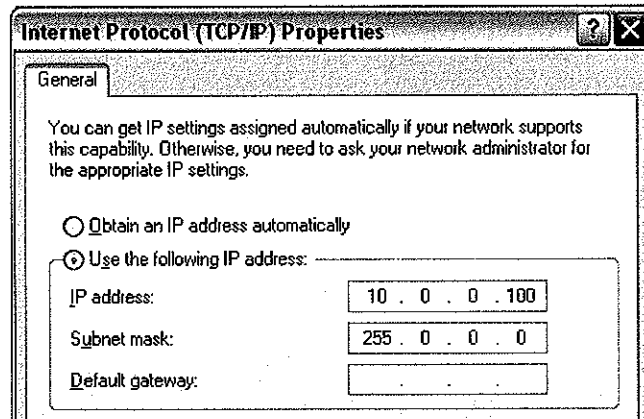


21. Click 'Apply' then 'OK'
22. Before you can use the software you must set the IP address of the PC so that it is on the same network as the MegaKey and they can communicate.
23. On your PC, Click Start and select Control Panel.
24. On the control panel, double-click Network Connections. On Windows Vista, this will be called "Network & Sharing Center."
25. Right-click on Local Area Connection and click on Properties.
26. Select Internet Protocol (TCP/IP), and then click Properties.



WARNING: Be sure to write down the current settings before making any changes. This will allow you to restore these settings if needed.

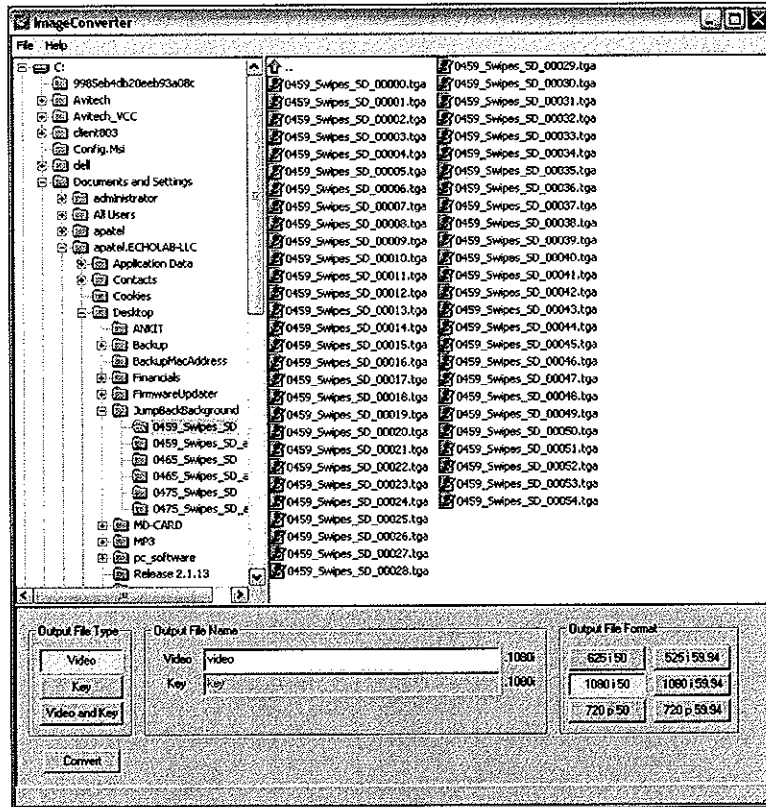
27. Select "Use the Following IP Address".
28. Complete the IP address and Subnet mask fields so that they are on the same network scheme as the MegaKey hardware.



29. Click OK on the Local Area Connection Properties window. It is not necessary to restart your PC.
30. We can now verify that the connection by "pinging" the MegaKey hardware. Click Start and select Run.
31. In the Open dialog, type "cmd" and press 'OK'. A command window should open.
32. In the command prompt, type "PING X.X.X.X" where 'X.X.X.X' is the IP address of the MegaKey hardware that you recorded in step4.
33. You should see a reply message simmlar to the following: Reply from X.X.X.X: bytes=32 time=1ms TTL=64
34. If you do not recieve a reply message and instead revieve a "Request timed out." message then please verify your IP address settings, Network connections and try again.

CONVERTING CLIPS FOR USE WITH MEGAKEY

In order to provide full screen, full quality, real-time playback, files must be converted to the MegaKey custom file format. A PC based application, provided, must be used to convert a sequence of TGA files to the MegaKey file format.



1. Start the ImageConverter Application by clicking on the ImageConverter shortcut on your desktop
2. Use the "explorer" like section to browse to the folder where you have your sequence of TGA files
3. Select the files that you would like to convert. You must select all of the files in the sequence.
4. If the sequence of TGA files that you have selected contains the FILL signal then choose Video. If the file contains the KEY signal then choose KEY. The Video and Key button is for future use and it is not recommended that you use that mode for now.
5. Assign a name for the file.
6. Choose the output format for the file conversion. It is recommended that you choose the same format that was used when rendering the animation. This is because the application will automatically scale the animation to match the destination output format which may result in some scaling artifacts.
7. Finally press convert

8. The application will create a new file in the same directory as the original. The file will have a 3 or 4 character extension specifying the format of the file. For example a file with the extension 525i is an SD file while a file with the extension 1080i is an HD file.

COPYING FILES TO THE MEGAKEY CARD MEMORY

1. Start the LogoKeyer Application by clicking on the LogoKeyer shortcut on your desktop. This is the same shortcut that was modified with the IP address of the board. When the application is launched you will notice that the IP address of the MegaKey card is displayed in the title bar of the window.
2. Use the "explorer" like section to browse to the folder where you have the converted clips. Remember that extension of the converted files specifies the files video format.
3. The bottom half of the application displays the files that are currently stored in both the RAM and Flash parts of the MegaKey card.
4. Finally the Status bar at the bottom of the application displays the amount of free space that is available on the MegaKey card.
5. You manage the files on the card via this interface.
6. To add a file simply drag and drop the files from the top half of the application into either RAM or FLASH.



IMPORTANT: The Echolab Interface to MegaKey only communicates with files that are stored in RAM. The files that are stored in Flash are invisible to the Echolab Interface. Moreover when the card is rebooted any data saved in RAM will be lost and any data stored in Flash will copy itself from Flash into RAM. Echolab therefore recommends that you copy all of your required files to the MegaKey Flash storage and then reboot the card to verify that they have copied correctly. You can then be sure that those files that you copied to Flash will be available for use on boot up.

7. To delete a file simply select the file and press delete on your keyboard. Please be careful when deleting files as there is no recycling bin and all deletes are final.