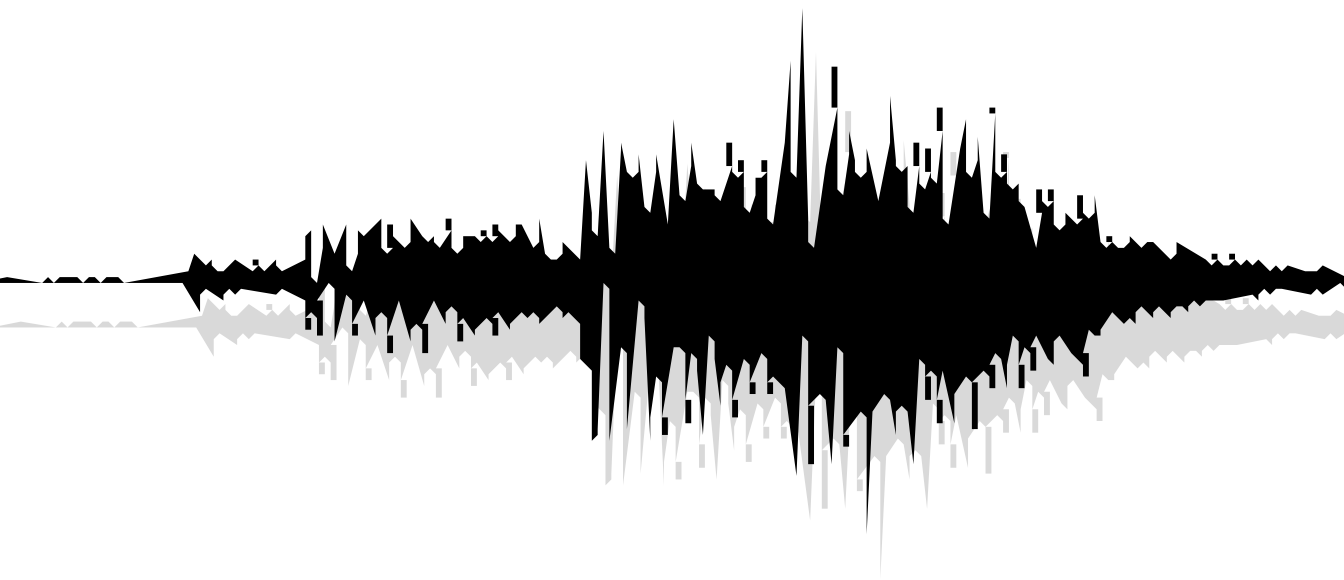


Appendices



Appendix 1:

Keyboard Shortcuts & Actions

Keyboard Shortcuts

This section lists the default keyboard shortcuts for Peak. As you learned in Chapter 3: Peak Basics, these keyboard shortcuts may be reassigned to any desired key or combination of keys, as well as to icons in the Toolbar.

Menu	Keyboard Shortcut	Command Comments
File		
⌘-N	New Mono Document	Creates a blank mono document
⌘-Shift-N	New Stereo Document	Creates a blank stereo document
⌘-Option-N	New Document from selection	Creates new document from selection
⌘-Shift-P	New Playlist Document	Creates a blank playlist
⌘-Shift-B	New Document From Playlist	Creates a document from a playlist
⌘-O	Open...	Opens a file from disk
⌘-C-W	Close	Closes the front-most document
⌘-Option-W	Close All	Closes all documents
⌘-S	Save	Saves the front-most document
⌘-Shift-S	Save As...	Saves the front-most document with a new name and/or new location
⌘-Option-S	Save a Copy As	Saves a copy of the front-most document with a new name and/or new location
⌘-Q	Quit	Quit Peak
Edit		
⌘-Z	Undo	Undo edits one by one (as long as you haven't Saved)
⌘-Y	Redo	Redo edits one by one (as long as you haven't Saved)
⌘-X	Cut	Cut selected audio
⌘-C	Copy	Copy selected audio to clipboard (useful for Clipboard based DSP effects like Mix and Convolve)
⌘-V	Paste	Pastes Copied or Cut audio at insertion point
⌘-D	Insert	Pastes, pushing audio at insertion point further to the right.
⌘-E	Silence	Replaces audio selection with silence
Delete Key	Delete	Deletes selection, does not put in Clipboard
Option-Delete	Delete Except Audio	Deletes Markers, Loops & Regions
⌘-`	Crop	Crops selected audio

Menu	Keyboard Shortcut	Command Comments
⌘-A	Select All	Selects all audio and events
Up Arrow	Insertion Point at Selection Start	Places Insertion Point at beginning of selection
Down Arrow	Insertion Point at Selection End	Places Insertion Point at end of selection
⌘- -	Select Loop	Selects loop
⌘-Left Arrow	Previous Selection	Selects previous view or selection
⌘-Right Arrow	Next Selection	Selects next view or selection
Action		
⌘-] or +	Zoom In	
⌘-[or -	Zoom Out	
Control-Up Arrow	Increase Vertical Zoom	
Control-Down Arrow		Decrease Vertical Zoom
⌘-Shift-]	Fit Selection	
⌘-Shift-[Zoom Out all the way	
Shift-Left Arrow	Zoom To Sample Level	Zoom in to start of selection at sample level
Shift-Right Arrow	Zoom To Sample Level (End)	Zoom in to end of selection at sample level
⌘-Shift- -	Loop this Selection	
Option-Left Arrow	Nudge Loop Backward	
Option-Right Arrow	Nudge Loop Forward	
⌘- -	Select Loop	
⌘-M	New Marker	
⌘-Shift-R	New Region	
⌘-G	Go to Time...	
⌘-J	Loop Surfer™	
Audio		
Spacebar	Play	
Option-Spacebar	Play Selection	
Spacebar	Stop	
⌘-R	Record	
Option-R	Record Settings	
Preference		
⌘-L	Use Loop in Playback	
⌘-,	Show Overview	Toggles waveform overview on and off
⌘-I	Audio Info...	
Window		
⌘-P	Playlist	Opens document's Playlist.
⌘-T	Tile Windows	Arranges open documents in a tile formation.
⌘-1, -2, -3....	Document Windows	Brings document windows to front by number, in the order they were opened.

Menu	Keyboard Shortcut	Command Comments
Option-1, -2, -3....	VST Windows	Brings VST windows to front by number, in the order they were opened.

the Space bar, click the Play button on the Toolbar, or double-click mouse at desired location in the track.

Peak Actions

This section lists common Peak Actions not found in Peak's menus. It is organized by Peak windows and functions.

Useful Peak Actions, General

To stop lengthy processes, Saves and recalculations:

- Press ⌘-Period

Audio Document Window, General

To recalibrate the Max Level Indicator in Overview:

- Option-click on Max Level Indicator (at top left of audio document window), but only when Overview is visible.

To toggle Max Level Indicator in Overview between % and db:

- Click on Max Level Indicator (at top left of audio document window), but only when Overview is visible..

To bring up the Audio Info Dialog:

- Click on the Audio Info Area at the bottom left of the audio document window.

To navigate the Overview without playing audio:

- Option-drag in the Overview

Playback

To play from beginning of a document, or from the location of the insertion point:

- Press the Space bar, or click the Play button on the Toolbar

To stop playback:

- Press the Spacebar again, or click Stop on the Transport.

To play from a desired location in the audio document:

- Click cursor at desired location in track and press

Scrubbing

To begin dynamic "shuttle" scrubbing:

- Hold down the Control key and drag the mouse across the desired area.

To begin dynamic "jog" scrubbing:

- Hold down the Control and Option keys, and drag the mouse.

Selections

To make a selection:

- Click and drag the mouse.

To select all:

- ⌘-A.

To extend or shorten a selection:

- Shift-click on the end of the selection that you wish to modify, then drag the mouse to extend or shorten the selection.

To toggle selection start/end:

- Use the shift key.

To snap selection to the nearest zero crossing:

- Hold ⌘-Option while making a selection.

Views

To zoom out by increments:

- Press ⌘-[

To zoom in by increments:

- Press ⌘-]

Markers, Loops, and Regions

For a quick list of all Markers in an audio document:

- ⌘-click on the title bar of the audio document window.

To find a Marker by name:

- Type in the first few letters of the marker name

To edit a Marker:

- Double-click on the triangular base of the Marker to open the Edit dialog

To name a Marker:

- Double-click the triangular base of the marker, and enter a name.

To select the audio between two markers:

- ⌘-click anywhere between the markers, or press the Tab key.

To select additional audio between markers:

- ⌘-Shift-click between another two markers, or press Shift-Tab.

To move a marker:

- Click on the triangular base of the marker and drag it.
- Or, double-click on the triangular base and enter a time.

To change regular markers into loop markers:

- Double-click the triangular base, and click the Loop Start or Loop End radio button.

To move a pair of loop markers together:

- Hold down the Option key and drag one of the loop markers.

To move a marker to a zero-crossing:

- Click on the triangular base of the marker, and hold down the Shift key while you drag the marker.

To move both ends of a loop or region marker simultaneously:

- Hold down the Option key while moving the marker.

To delete a marker:

- Double-click the triangular base. Click the Delete button.

To delete all markers, loops and regions, leaving audio intact:

- Select all, then press Option-Delete.

To paste just markers, loops and/or regions, leaving audio intact:

- hold down option while selecting paste from the edit menu (⌘-Option-V).

Playlist

To do multiple assignments of DSP effects in the Playlist:

- Shift-click DSP boxes

To scrub Playlist audio during playback:

- Click and hold the mouse on the time display. The cursor changes to a scrub cursor (<-->). Drag to the left to scrub backwards, drag to the right to scrub forwards. The farther to the left or right you drag, the faster the scrub will progress.

Loops

To create a loop from a selection:

- Select desired range, and choose Loop This Selection from the Action menu.

To listen to a loop:

- Choose Use Loop in Playback from the Preference menu or Toolbar, and start playback before the loop end marker.

The Cursor Palette

To toggle between tools in the Cursor Palette:

- Press the esc (Escape) key.

To toggle Blending on and off:

- Press the Caps Lock key.

To find the zoom factor amount:

- Double-click on the Zoom tool in the Cursor Palette.

To bring up the Smoothing dialog for the Pencil tool:

- Double-click on the Pencil tool in the Cursor Palette.

The Contents Palette

To edit a region, marker or loop in the Contents Palette:

- Option-double-click on it's name in the Contents Palette.

The Movie Window

To make the Movie window smaller:

- Option-click on the QuickTime movie's "grow box" (at the upper right corner of the Movie window.)
-

Appendix 2: Troubleshooting

This Appendix contains solutions to common problems that you may encounter when using Peak.

Before Calling For Help

Before you call BIAS Technical Support for help, please take a moment to examine the Read Me file installed with Peak. This document contains late-breaking information not included in your User's Guide.

Also, visit the BIAS web site for technical support, support files, upgrades, and more:

<http://www.bias-inc.com>

Typical Problems and Solutions

Peak software won't open:

- Does your Macintosh have enough RAM to run Peak? You must have at least 32MB of RAM--48MB of RAM is recommended. To find out how much memory your Macintosh has, choose About This Macintosh in the Finder's Apple Menu. A window will appear telling you how much memory is currently installed in your computer. If you have less than the amount required to run Peak, you will have to install additional RAM in your computer.
- Is Macintosh System Software version 7.6.1 or later installed on your computer? If not, you may need to purchase and install the most current version of the Macintosh System Software in order to run Peak.
- Is Sound Manager version 3.3 or later installed on your Macintosh? If not, you must install this Macintosh System software in order to use Peak.

(Sound manager 3.3 or later is recommended.)

- Is QuickTime™ 3.0.2 or later installed on your Macintosh?
- Is the QuickTime™ PowerPlug installed on your Macintosh?

Digidesign hardware not recognized:

- Currently, version 1.42 of the Sound Manager drivers works with AudioMedia, Sound Tools, and other Digidesign cards. Contact BIAS for more information, or visit the BIAS web site at <http://www.bias-inc.com> to download the required system extensions.
- Version 1.42 is the current recommended version to use with PCI ProTools III or AudioMedia III hardware.
- Make sure the correct version of the DigiSystem Init is installed in the Extensions folder.
- Try using the ASIO Digidesign Direct IO driver which can be downloaded from Steinberg at <http://www.steinberg.net>

Peak used to work but now acts strangely or won't launch:

- If Peak used to work but now won't launch or suddenly started acting strangely, the Peak Preferences file may be corrupted. Try quitting Peak, dragging the Peak Preferences file from the Preferences folder (in your System Folder) to the Trash icon on the Desktop, choosing Empty Trash from the Finder's Special menu and then relaunching Peak.

I can't audition audio from Peak's Open dialog:

- Be sure that "Show Preview" is checked in the Open dialog.
- Be sure that your Sound Card's Sound Manager driver is selected for Sound Out in the Sound Control Panel.
- Check the Volumes in the Sound Control Panel and make sure the Volume for your selected sound card is turned up.

I am having trouble with my Waves Premiere plug-ins:

- BIAS recommends that you use the new Waves Waveshell-P 2.6 or later.
- Try trashing the Waves preferences folder from the Preferences folder in the System folder.

When I place the cursor on the waveform, it jumps to the right or the left. Why?

- This is the result of Peak's "Auto Snap To Zero" preference, that automatically places the cursor at a zero crossing in the waveform. You can turn it off by going to the Preference menu and un-checking the option.

I notice files on my hard drive with Peak file icons, called "AFM.temp"

- These are temporary files that Peak created as you edited audio. If you change Scratch Disk preferences at the end of a session, or force-quit or crash in Peak, sometimes these temporary files won't be deleted. You can either manually drag them into the Trash, or launch and then quit Peak.

I know that I can process separate channels in Peak, but not edit them separately. Is there a workaround?

- The workaround is to export dual mono files, open the Left and Right channels in Peak as two separate mono files, edit them, save them, and then Import as Dual Mono. You will then have a stereo file with your changes in it.

Type -1, type -2, and type -3 errors are usually memory related and result from one or more of the following conditions:

- Be sure that sufficient RAM has been allocated to the application (recommended 48MB, but at least 32MB). It is possible to allocate too much memory to an application (see next point). If you are running Peak, be sure that you have set your Monitor for no more than thousands of colors (or even 256).
- Be sure that there is sufficient free RAM for the System, if the OS runs out of RAM the Application and/or the System may report a type 1, 2, or 3 error.
- These types of errors can result from extensions conflicts. To eliminate any possible extensions

conflicts simply duplicate your Mac OS Base Extensions Set and enable the additional extensions required by the application (you may also want to enable any sound card drivers, OMS, etc.). Reboot and use this extensions set when running the application.

Peak reports a -108 error:

- A -108 error generally means Peak doesn't have enough RAM. If the Installer gives you this error, increase the Installer's RAM in the Finder's Get Info Window.

Peak reports a -2804 error

- Because Peak uses AppleScript to interact with Toast when burning a CD from Peak's Playlist, you must have the extension, AppleScriptLib active in your extension set.

Peak reports a -2807 error:

- If Peak reports a -2807 error when launching, make sure that the QuickTime and QuickTime PowerPlug extensions version 3.0.2 or later are installed in your Extensions folder (in your System Folder).
- Make sure that the Sound Manager version 3.3 or later is installed in your extensions folder.

Peak reports a -2817 error:

- If Peak reports a -2817 error when launching you do not have the three MSL extensions active in your extension set that were installed during the Peak installation process, but you do have the RealAudio extensions folder in your System's Extension folder. If you plan to use Peak to encode sound files in RealAudio 5.0, then you must have the three MSL extensions active. If you do not plan to use Peak to encode files with RealAudio, then remove both the RealAudio folder and the three MSL extensions from your System's Extension folder.

Peak reports a -2821 error:

- If Peak reports an error result code -2821 you will need to be sure that the Shared Library Manager and Shared Library Manager PPC extensions are installed and enabled in your extensions set.

Peak reports a “QuickTime Lib not found” error:

- Make sure you have both the QuickTime and QuickTime PowerPlug version 3.0.2 or later extensions in your Extensions folder (in your System Folder).
- Make sure that the Sound Manager version 3.3 or later is installed in your extensions folder.

Peak quits unexpectedly:

- Have you allocated enough memory to Peak? Allocate additional RAM to Peak if possible, using the Get Info command from the Finder’s File menu. To do this, select Peak’s icon in the Finder, choose Get Info from the Finder’s File menu, and enter the desired amount in the Preferred Size field. Make sure you allocate more RAM than the amount indicated in the Minimum Size field.

Playlist DSP Plug-ins stutter during playback:

- Go to the Preference menu and select Playback. Increase the disk buffer size in the Playback preference.
- Select Prime Realtime w/Silence from the Plug-Ins menu.
- Avoid moving windows, selecting menus or doing other actions in the Peak window while playing back using real-time effects. Premiere plug-ins cannot do interrupt-level processing.

Digital noise burst in bounced playlist containing Plug-In DSP:

- Select Prime Realtime w/Silence from the Plug-Ins menu and bounce the Playlist again.

Peak stops or stutters during recording or playback:

- Is your hard disk too slow? For direct-from-disk recording and playback, your hard drive must have an average seek time of 18ms or faster. If you are not sure of the speed of your drive, check with the manufacturer or the dealer where you purchased the drive.
- Is the data on your hard disk fragmented? If the files on your hard drive have become fragmented (see Chapter 3 for an explanation of fragmentation) you may have to use a hard disk maintenance

program such as Norton Speed Disk™ or the optimizer module of TechTool Pro™ to defragment your drive.

- Is Peak’s playback buffer in the Playback Preferences (found in Peak’s Preference menu) set too low? Try increasing the playback buffer to 128K or higher.
- Is the Macintosh’s disk cache set too low? If you have enough RAM to permit it, use the Memory control panel to set the Macintosh’s disk cache to at least 384K and restart your computer.
- Are you using too many System Extensions? Extensions can slow down your Macintosh by using precious processor cycles and can conflict with a disk-intensive program such as Peak. In particular, turn off or remove System Extensions such as menu bar clocks and screen savers that are in constant operation, and restart your Macintosh.

Audio playback has pops and clicks:

- Try turning off Interrupt-based metering in Peak’s Meters dialog.
- If you are playing through Digidesign Sound Manager Drivers (not DAE) on Digidesign hardware that has its own separate SCSI bus and audio drives you may need to move the audio files off your Digidesign audio drives and onto a hard drive that is attached to your Macintosh’s internal or external SCSI chain. You should also disable any drives attached to the Digidesign audio bus in Peak’s Scratch Disks dialog.
- Is AppleTalk turned on? If so, use the Apple menu’s Chooser to turn it off if you don’t need it.
- Try increasing the playback buffer size in Peak’s Playback Preferences dialog. (Always use the smallest working setting, because this setting also affects how much memory is used per audio document window.)
- Do the Sound Control Panel’s Sound Out sample rate and resolution settings match the ones set in Peak? To check, select a portion of audio in Peak, choose the Audio Info command from Peak’s

Preferences menu, and note the settings. Then, open the Sound Control Panel from the Apple menu, and choose Sound Out from the pop-up menu. If the settings don't match, correct them here.

Audio playback is at the wrong speed or pitch:

- Do the Sound Control Panel's Sound Out sample rate and resolution settings match the ones set in Peak? To check, select a portion of audio in Peak, choose the Audio Info command from Peak's Preferences menu, and note the settings. Then, open the Sound Control Panel from the Apple menu, and choose Sound Out from the pop-up menu. If the settings don't match, correct them here. (This may also cause the system beep to play at the wrong speed.)
- If you are using a plug-in audio card such as Digidesign's AudioMedia III card, the input source or clock rate may be set incorrectly. Make sure that both of these parameters are set correctly by opening the Macintosh's Sound Control Panel and choosing Sound In from the pop-up menu. This problem is very common if your audio card is connected to a digital recorder and is receiving its clock rate from that device. To avoid this problem, always set the input source back to line or line + mic and set the Sync Mode back to Internal in this dialog after you have finished transferring audio digitally. If the file plays back about 10% slow or fast after switching from digital to internal sync, the sample rate selected in the Hardware Setup window may not match the sample rate of the digital source.

Problems with Scrubbing:

- QuickTime 4.0.2 had problems with scrubbing. Try upgrading to QuickTime 4.1.

The items in the DSP menu are grayed out:

- You need to open an audio document before the DSP effects will be available.
- Not all DSP processes are available in Peak LE and Peak SE.

The items in the Premiere Plug-Ins menu are grayed out:

- You need to open an audio document before the Premiere Plug-Ins will be available.
- Real Time Premiere Plug-Ins are not available in Peak LE and SE.

Using Peak with Digidesign or other third-party hardware:

- If you don't have them already, you will need to place the appropriate Digidesign compatibility extensions (the Digidesign Sound Drivers and the DigiSystem Init) in your Extensions folder (in your System Folder). Make sure you're using the recommended versions of these extensions.
- If you experience problems while using Peak with Digidesign or other third-party boards, you may be able to narrow down the source of the problem by removing the associated System Extensions from your Extensions folder and restarting the computer. If this fixes the problem, there may be an extension conflict or other problem with the third-party software. FAQs and technical support information for Digidesign products may be found at <http://www.digidesign.com/>
- Whenever you change hardware or software, it's a good idea to drag the DigiSetup file (a preference file that stores your Digidesign hardware settings) from the System Folder to the Trash icon on the Desktop, and then choose Empty Trash from the Finder's Special menu. Sometimes this preference file can get corrupted. It will be recreated when you change settings in the Hardware Setup window.
- If you are experiencing pops and clicks while using Peak with Digidesign's AudioMedia III card, these problems have generally been resolved by one or more of the following:
 1. Use the recommended Digidesign extensions.
 2. Rebuild your Desktop. This is a good thing to do every now and then. It is done by holding down the Option and Command keys while you restart the Macintosh.

3. If your hard drive is highly fragmented, you should defragment and optimize it.

4. Zap your PRAM. The PRAM is a programmable RAM chip that remembers things like Control Panel settings after you turn off your Mac. Sometimes the PRAM can get corrupted, causing a variety of problems. The solution is to zap your PRAM. There are two methods for doing this:

- a. While holding down the ⌘-Option-P-R keys, turn on the computer. It will restart, re-chiming to indicate that the PRAM has been reset. Then Release the Command-Option-P-R keys. You will then need to reset all of your system Control Panel preferences, such as 24/32 bit and Virtual Memory settings in the Memory Control, Date & Time Control Panel, etc.
- b. Use TechTool from Micromat, a utility which can clear the entire PRAM clean. It can save the previous contents (in case you find out you really shouldn't have zapped it) and restore the PRAM to what it used to be.

5. Throw away all of your various Finder preferences and preferences for problematic applications. Make sure AppleTalk is turned off, or if you have Open Transport running, use the Network Control Panel to select Classic AppleTalk and then turn it off. Finally, restart your computer.

If you get a -9095 DAE error in Peak, please try the following steps:

- Quit Peak and DAE.
- Trash the Peak preferences file and the DigiSetup file from the System folder.
- Launch Peak and under the Preferences menu in Peak go to Scratch Disks--designate a Primary scratch disk and enable only those drives as scratch disks that are on your Digidesign SCSI bus.
- Launch DAE from Peak (Audio->Sound Out->DAE).
- When recording, be sure to designate your recording drive as one of the drives on the

Digidesign SCSI bus.

Please note that you can only record to and play from those drives on your Digidesign SCSI bus when running DAE with Peak on a Digidesign system that has its own dedicated SCSI bus.

Peak does not work with DAE 5.0 on non-TDM systems:

Please note that DAE 5.0 does not support third party applications, such as Peak, with non-TDM hardware (such as the AMIII or the Digi 001). The AMIII card will work with Peak 2.1 via the AMIII ASIO or Digidesign Direct IO ASIO drivers, the Sound Manager Driver, and/or DAE 3.4.x. The AMIII ASIO and Digidesign Direct IO ASIO drivers can be downloaded for free from Steinberg at <http://www.steinberg.net>

Digi 001 and Peak:

The Digi 001 will not support third party applications, such as Peak, via DAE, and currently there are only output drivers for the Sound Manager. The best way to get sound in and out of Peak via the Digi 001 is to use Peak 2.1 and the Digidesign Direct IO ASIO driver, which can be downloaded for free from Steinberg at <http://www.steinberg.net>

Problems using Peak with an Ensoniq Sampler:

- Make sure you choose the correct OMS device in the Ensoniq Sampler dialog's OMS device selection pop-up menu.
- Make sure your Ensoniq Sampler is set to MIDI SYSEX = ON.
- Make sure your MIDI interface is powered on.
- Make sure your MIDI cables are connected correctly.
- Check to see that you have a good MIDI connection.
- Either use the Modem serial port, or turn off AppleTalk using the Chooser (under the Apple menu).

Problems using Peak with a SMDI sampler (via SCSI):

- Use high-quality, tested SCSI cables that are as

short as possible.

- Check for SCSI ID conflicts. Make sure every SCSI device in the SCSI chain has a unique ID.
- Check for problems with SCSI termination. For more information, consult the manuals of your SCSI devices. SCSI termination should exist on each end of the SCSI chain: one termination inside the Macintosh (usually this is the case), and one termination on the last SCSI device in the chain.
- Try turning off Asynchronous transfers in Peak's Samplers Preferences dialog.
- Reduce the number of components in your SCSI chain. If you have more than one device connected between the sampler and your Macintosh, try removing devices to determine if this affects the errors.
- Change the power-up order of your devices. Try turning all SCSI devices on first, including the sampler. Once the devices have powered up, turn on the Macintosh. If this does not help, try turning on your other SCSI devices, then the Macintosh, and finally the sampler.
- Turn on the Use New SCSI Manager option in the Sampler dialog under Peak's preferences menu.

What is the Apple System Profiler, and how can it help solve difficult technical support problems?

- Apple System Profiler lets you gather information about the configuration of your computer. The information the Apple System Profiler reports is helpful if you report a problem to our Tech Support department.
-

Appendix 3:

Encoding RealAudio, Shockwave and MPEG-3 Files

RealAudio

Peak is an indispensable tool for preparing audio files for the internet. Peak supports the RealNetworks™ RealAudio 5.0, 3.0, and 2.0 Encoders, allowing you to prepare audio for streaming over the internet. This chapter discusses how to use the RealAudio Encoder dialog in Peak, and how to optimize your results.

You must have the RealAudio Encoder extensions installed in your System Folder. If you chose “Custom Install” when you installed Peak, you may not have the proper extensions. The following extensions are required, and are bundled with Peak:

RealAudio 14.4 encoder
RealAudio 28.8 encoder
RealAudio dnet encoder
RealAudio Engine

MSL RuntimePPC.DLL
MSL RuntimePPC + +.DLL
MSL C.PPC.DLL

The RealAudio™ system delivers music and speech over a network in real-time. Real-time delivery means that users do not have to wait while a file downloads; the sound plays as it is delivered. Users have complete control over the sound; they can pause, move forward and back, and start or stop at any time.

The network can be the Internet, an intranet, or any local area network. RealAudio formats are optimized for low- to medium-speed connections including 28.8

and 56 Kbps modems and ISDN. Users can also listen to RealAudio files stored on their local computers.

A RealAudio clip is a file or live broadcast containing sound encoded in one of the RealAudio formats. These formats are highly compressed to deliver the best possible sound over a limited-bandwidth connection.

Because there is no one best format for delivering sound, the RealAudio system provides several formats that are optimized differently for different kinds of audio content. You can choose to provide a clip in one or more formats based on the type of content and the available bandwidth. For example, you would use a different format to deliver speech over a 28.8 Kbps modem than you would to deliver music over an ISDN connection.

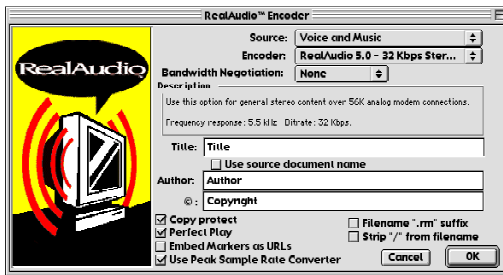
In addition to the sound contained in the RealAudio clip, the RealAudio system can deliver images and other Web pages that are synchronized with the sound. These presentations are called Synchronized Multimedia.

The RealAudio system uses several file types, each identified by a specific file extension. The RealAudio files Peak supports and their file extensions are:

- **RealAudio clip (.ra):** The sound encoded in the RealAudio format. This file is created with Peak delivered by RealAudio Server.
- **RealAudio events file (.rae):** The file that contains the events defined for a Synchronized Multimedia presentation. The events file has the same name as

the RealAudio clip it contains events for and it is stored in the same directory on the RealAudio Server. This file is created using markers in your Peak audio document.

To save a file in the RealAudio format, choose Save As... from the File menu in Peak. In the file type pop-up menu that appears in the Save As... dialog, choose "RealAudio." The RealAudio dialog will appear with several options.



The RealAudio Encoder dialog

You can play back RealAudio documents created with Peak using the RealNetworks RealAudio Player™ application, which is free. Download the RealAudio Player™ from the RealNetworks web site at:

<http://www.real.com>

Encoding a RealAudio clip is a one-way process; you cannot convert a RealAudio file back into the original source format. If you want to be able to encode in other formats in the future, you need to archive a copy of the original source.

When you encode an audio file, you select an encoding algorithm. The RealAudio Encoder can encode using several different algorithms. Each encoding algorithm is optimized for a particular type of audio and connection speed bandwidth. You need to select one or more algorithms that best suit your needs.

It is possible to offer more than one encoding algorithm from your RealAudio Server. In this way, you

can reach the widest possible audience while still providing high-bandwidth users with the best listening experience. Using Bandwidth Negotiation, you can configure your site to automatically serve the appropriately encoded file. For more information about Bandwidth Negotiation, refer to the RealAudio web site at <http://www.real.com>.

Options

Source

The Source pop-up menu allows you to specify the type of audio material your source document contains. For instance, if your audio document is just narration, choose Voice from the Source pop-up menu.

Encoder

The Encoder pop-up menu contains a list of encoding options based on the Source settings, described above. Specific algorithms exist for different bandwidths (e.g., 28.8 bps modems, ISDN, etc.), and different numbers of channels (Mono or Stereo). Choose the Encoder option that is correct for your internet streaming delivery needs.

Bandwidth Negotiation

Peak does not support bandwidth negotiation at this time.

Title

RealAudio clips include text strings for the title, author, and copyright. This text is displayed by RealAudio Player when the clip is played. Although the player usually labels the text as title, author, and copyright, the player displays whatever text you choose to supply.

Text information entered into the Title edit box is stored in the RealAudio document. Use this field to enter information about the name or source of your audio.

Use Source Document Name

If you would like Peak to place the audio document's

file name in the Title field instead of providing a custom Title, check this box.

Author

Use this text field to enter the author or group on the recording.

Copyright

Use this text field to enter copyright information for the recording.

Copy Protect

Click on the Copy Protect button to create a RealAudio document that can only be played, but not recorded.

Embed Markers as URLs

Click this button to create an “.rae” Synchronized Multimedia file along with the encoded “.ra” file. If this option is turned on, Peak will generate a “.rae” file using the text from the markers in the audio document.

In addition to basic audio content, the RealAudio system allows you to create real-time on-demand multimedia from within Peak. These presentations can be as simple as a narrated slide show of your home page or as intricate as a multi-frame training program that the viewer controls.

The RealAudio System includes the ability to synchronize World Wide Web pages with audio. Thus the audio can be used as a “time line” to display new pages or frames in the Web browser or to update its content. This enables the creation of Internet slide shows, presentations, guided tours, and site walk-throughs. A user can have full random access (fast forward and rewind), and the Web browser content is synchronized with the audio.

The RealAudio System stores the information for the synchronized events in a file with a .rae file extension. The audio file is located by the RealAudio Server when the listener opens the .ra file. The RealAudio Server streams audio and event information to the RealAudio

Player. The event information is streamed to the RealAudio Player, and in turn the RealAudio Player sends Web page information to the Web browser telling it to update the page's content.

As an example, we might want to create a slide presentation for users to watch that is coordinated with the audio. We use Peak to record the narration of the presentation “Welcome to the Storyboard Society of America's thirteenth annual presentation. Today we're going to look at how storyboards have affected developmental changes in adolescents in Germany, Spain, and the United States. We'll look at several key issues including storyboard design, market dominance, storyboard manufacturing materials choice, creative storyboard potential, and storyboard plagiarism.”

We can place text markers into the audio file using Peak. The text of each marker contains the URL for the browser application to go to. For instance, we might put a marker where it reads “Welcome to the Storyboard Society...” to have the text “http://www.storyboard.org/slidepresentation/slide1.gif.” Then we might put a marker into the audio where it reads “We'll look at several key issues...” and place a marker there with the text “http://www.storyboard.org/slidepresentation/tableofcontents.gif.”

When the RealAudio clip is played, the RealAudio server will send events to the Web browser at the times corresponding to your markers so a graphic, animation, or other HTML activity can be synchronized to the audio playback.

Perfect Play

Click on this button to allow the RealAudio document to be played on 14.4 bps modems when encoded using a 28.8 algorithm. If a RealAudio document is played to a 14.4 bps modem and Perfect Play is enabled, a pre-buffering scheme will allow the 28.8 bps audio to be listened to on a 14.4 bps modem.

Use Peak Sample Rate Converter

To use Peak's high quality sample rate conversion in place of the Progressive Network's sample rate converter, click on this box.

Filename ".ra" suffix

RealAudio documents on non-Macintosh systems typically have a ".ra" at the end of the document's name. Click this box to create a RealAudio document with ".ra" on the end.

Strip "/" from filename

Forward slash characters may be interpreted by RealAudio as an Internet URL. Click this box to ensure that document's are not encoded using the forward slash in the file name. The RealAudio server and player may misinterpret other characters such as the question mark "?", so try to avoid non-alphanumeric characters when naming your RealAudio encodings.

Tips for Optimizing Audio Quality For RealAudio
The quality of your RealAudio clips depends largely on the quality of the original source file. Because the RealAudio compression algorithms are "lossy," some of the information contained in your original audio input will not be included in the reconstructed signal sent to the RealAudio Player. You produce higher-grade audio following compression/decompression if you start with a high-fidelity recording with full dynamic range and a high signal-to-noise ratio.

The following is some advice for getting high-quality source files:

- Use high-quality source files from Compact Disc (CD) or Digital Audio Tape (DAT).
- When possible, digitize the sound to a supported file format. Then preprocess the file with a sound editing program. Set the amplitude of your input signal to maximize the use of the available dynamic range.
- Eliminate any DC offset. DC offset is visible in Peak's waveform view as an imbalance of the audio signal above or below the horizontal zero axis. This

enables you to remove low frequency noise. Peak has a Remove DC Offset feature available in the DSP menu, which will remove DC offset for you.

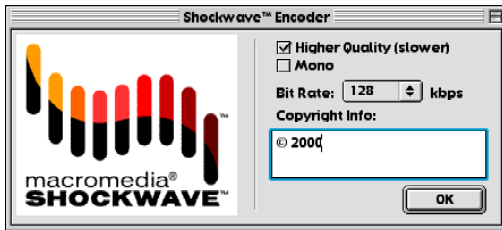
- Use a CD quality sampling rate (44.1 kHz), sampling width (16-bit) and two channels when creating an input file. You can always down-sample and convert the file to one channel later.
- Applying EQ, or equalization, to your source file may also help. Try using a "brick wall" low pass filter, such as those available in SFX Machine or Waves™ Q10. Setting a cutoff of 12KHz will filter out all frequencies above 12kHz, and help reduce audio artifacts that may occur due to compression.
- The source files should contain signals of the maximum allowable amplitude. If the full amplitude range is not used, the resulting RealAudio files may sound hollow. Adjust the range using Peak's Normalize function to automatically maximize levels. Generally, settings between 70%-90% work well.
- If your original audio file signal exceeds the acceptable amplitude range, the file may contain "clipping." Clipping can cause clicks or pops during playback. If your source file contains a clipped signal, your final RealAudio file will have high-frequency background noise or static. Use Peak to first edit out any clipping that might be in your source audio document before encoding.
- Cut any unnecessarily long silences from the beginning or end of the output file to conserve space.

ShockWave

You can now encode Shockwave audio files from Peak and Peak LE 2.0 or later. The get the Shockwave option to show up in Peak's Save As... dialog's file type pop-up menu, you'll need to download the Macromedia "SWA Export XTRA":

<http://download.macromedia.com/pub/updates/SE16SWA.hqx>

Drop the “Shockwave Export XTRA” into the Peak Plug-Ins folder, then launch Peak. You do not need to install the Shockwave Settings XTRA into the Peak Plug-Ins folder. The Shockwave option will now appear. You can listen to your encoded files using MacAmp, SoundApp, or other shareware programs.



The Shockwave Encoder dialog

High Quality

Use this option to achieve the highest possible quality in the encoding. This option makes the encoding process take longer, but the results are noticeably better sounding.



To speed up the encoding process, go to the Apple Memory Control Panel and set the Disk Cache size to the lowest possible setting.

Mono

Use this option to encode stereo documents into a Mono document

Bit Rate

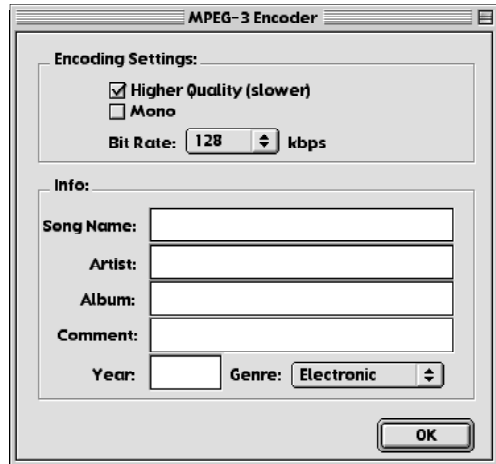
Select the desired bit rate for your encoding. Higher bit rates sound better, but require more disk space and take up more bandwidth.

Copyright

Type in your copyright information to be stored in the encoding here.

Encoding MPEG-3 files

To encode MPEG-3 (MP3) files from Peak, follow the directions above for installing the SWA Export XTRA in the Peak Plug-Ins folder.



The MPEG-3 Encoder dialog

High Quality

Use this option to achieve the highest possible quality in the encoding. This option makes the encoding process take longer, but the results are noticeably better sounding.



To speed up the encoding process, go to the Apple Memory Control Panel and set the Disk Cache size to the lowest possible setting.

Mono

Use this option to encode stereo documents into a Mono document

Bit Rate

Select the desired bit rate for your encoding. Higher bit rates sound better, but require more disk space

and take up more bandwidth.

Info

Type in the Song Name, Artist, Album, Comment, and Year information in the appropriate fields. Use the pop-up menu to choose the Genre.
