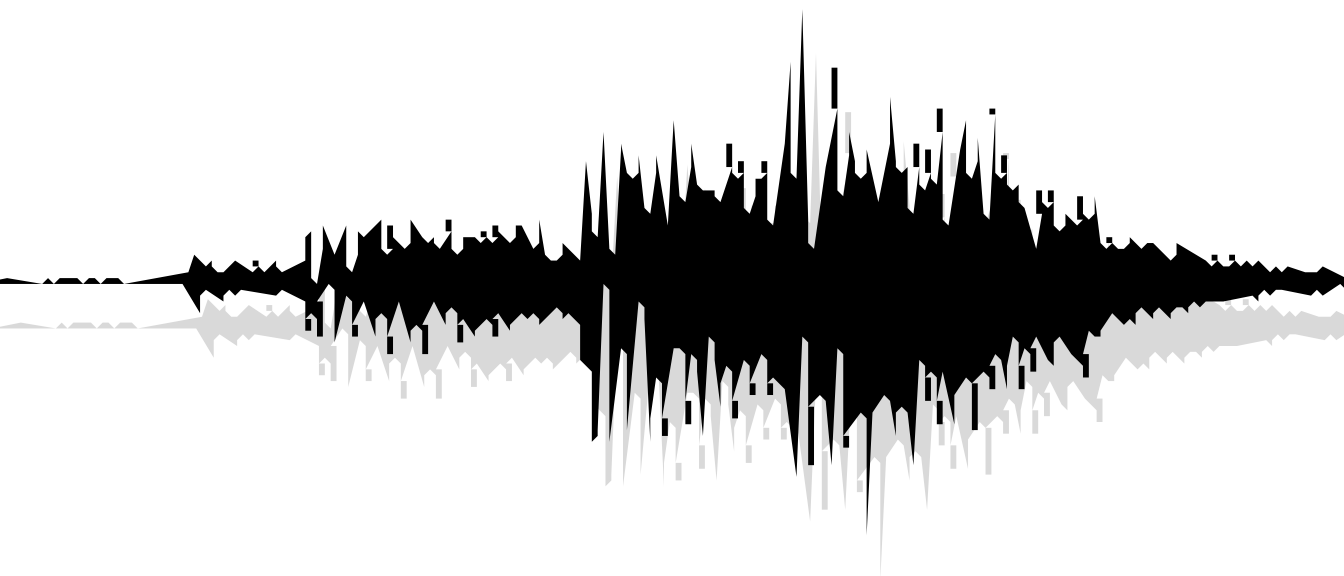


Chapter 5

Editing



Chapter 5:

Editing

This chapter introduces you to the concept of digital audio editing. You will learn how to do digital audio editing with Peak's many powerful digital editing tools.

Editing Audio with Peak

Peak provides you with a powerful interactive, nondestructive environment for editing and manipulating audio. In this environment, not only are virtually all editing actions completely “undo-able” and “redo-able,” but they can be performed interactively while audio playback is engaged.

Interactive Editing

Interactive editing means that you can cut, paste, loop, and process audio with DSP functions and Plug-Ins even while playing back the very audio that you are editing (Plug-Ins are covered in chapter 7). For example, you can start playback, cut a selection of audio and paste or insert it later in the document, and when Peak reaches the location of the inserted audio, it will play it as if it were there all along. This revolutionary capability makes Peak a supremely fast and flexible audio production tool that makes conventional recording and editing methods, such as analog tape and a razor blade or Sound Designer, seem primitive and archaic by comparison.

Nondestructive Editing

Peak's nondestructive editing capabilities mean that the edits you perform to an audio document do not permanently change the original source recording until you finally save the document. Thus, you can cut, copy, paste, fade in and out of, and otherwise

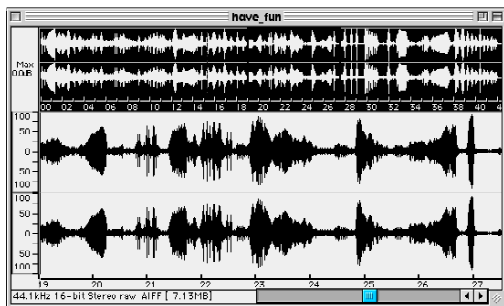
completely change a recording, and still be able to return back to square one — the original untouched state of the recording — up until the time that you save the document to disk. At that time, all edits are permanently written into the document.

Unlimited Undo and Redo

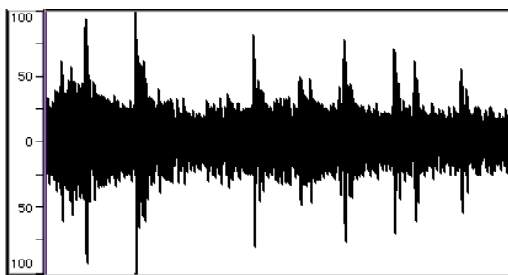
As an editing session progresses, Peak maintains an internal list of the edits that you perform. Changes that you make to an audio document are never permanently applied to the file until you ultimately save it. This is what gives Peak its unprecedented unlimited undo and redo capability. Through the use of the Macintosh's standard Undo and Redo commands, you can undo or redo your actions sequentially, or by using the Edits command, using a “playlist-style” editing event list. This is a very exciting technology that allows you to maintain complete creative freedom of choice—right up until the last moment before you save your project to disk. By making good use of these nondestructive, interactive editing capabilities, you will be able to perform feats of audio production that until recently were virtually impossible with traditional tools.

The Audio Document Window

The heart of Peak's powerful editing capabilities is the audio document window. The audio document window provides you with a “window into sound,” allowing you to make good use of both your eyes and ears to perform extremely precise editing tasks. The Audio Document window give you a time-domain representation of sound, that is, you see the amplitude of the sound over time.



The audio document window



An audio waveform

An Audio Waveform

If you have never seen sound displayed in a visual format before, it may not be immediately obvious how to “read” an audio waveform. It is actually quite easy to navigate through a recording with a waveform as your road map. The peaks in the waveform are areas of high amplitude (loud spots). The valleys in the waveform are areas of low amplitude (quiet spots). If the audio material is music with a pronounced, regular beat, it is generally very easy to pick out where the beats are simply by looking for peaks. Using this information, and the guidelines given shortly in the “A Selection” section, you will be able to successfully locate and select a desired portion of the audio document and perform the edits that you wish. The cursor marks the current location, and also serves as an insertion point.

Vertical Scaling

Peak allows you to control the vertical magnification of audio waveforms. This feature is useful if you are

editing and viewing a document with very quiet audio material.

To increase the vertical scaling magnification:

- Hold the Control key down and press the Up Arrow key.

To decrease the vertical scaling magnification:

- Hold the Control key down and press the Down Arrow key.

Audio Waveform Overview

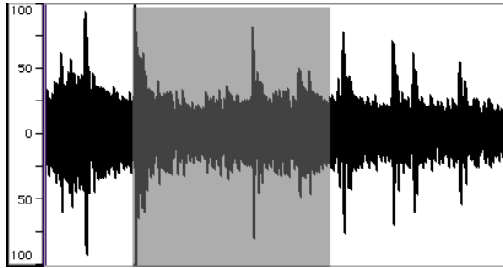
Peak provides an Overview display of the entire audio waveform along the top of the screen under the menu bar. This provides you with a convenient visual reference of the overall document when you are editing only a portion in the audio document window. The highlighted area in the Overview display shows the area of the audio waveform currently visible in the audio document window. If desired, you can hide the Overview display to allow the audio document window to occupy more of computer screen.

To show the Audio Waveform Overview:

- The Overview display appears along the top of the audio document window under the title bar. Check Show Overview in the Preference menu or Toolbar. A check next to this item indicates it is enabled.

To hide the Audio Waveform Overview:

- To hide the Audio Waveform Overview, uncheck Show Overview in the Preference menu or Toolbar.



A waveform with selected audio

A Selection

A selection is just what it sounds like: a portion of audio that you have selected by clicking and dragging with the mouse. You must select audio in order to perform an editing action on it. To make good selections for editing, the best rule of thumb is to begin a selection just before a peak in the waveform and end it just after a peak in the waveform. In other words, try to make selections start and end in areas of low amplitude (“valleys” in the waveform).

It is also important, when possible, to begin and end a selection at a point where the waveform meets the zero crossing line (the center line through the waveform). This helps you avoid creating pops and clicks if you later cut or paste the audio because the point at which the waveform meets the zero crossing is a point of low amplitude in the sound wave. Pops and click generally only occur if you make a careless selection and begin or end on a portion of the sound wave where the amplitude is high (where the waveform is high above the center point). Enable Auto-Snap to Zero in the Preferences menu to have Peak nudge your selection to zero crossings automatically.

The Zoom In function helps you make very precise selections by letting you zoom in to a higher magnification and select exactly the portion of the waveform you desire. Also, once you have made a selection, you can adjust the beginning or the end of the current selection by holding down the Shift key and clicking

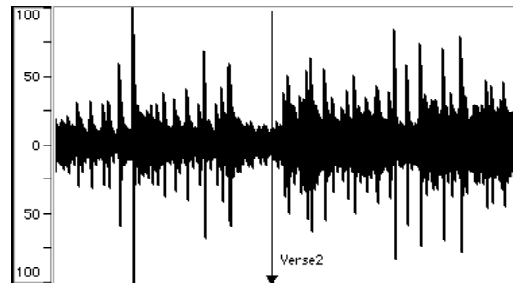
with the mouse. Your selection will be shortened or lengthened accordingly.

Channel Independent Processing

To select only the Left channel, move the cursor over it. The cursor will show a small “L” at the insertion point. To select only the Right channel, move the cursor over it. The cursor will show a small “R” at the insertion point. You can process one channel of an audio document using Peak’s native DSP or third-party plug-ins. However, you cannot edit a single channel of a stereo document (e.g., by using Cut, Copy, or Paste).



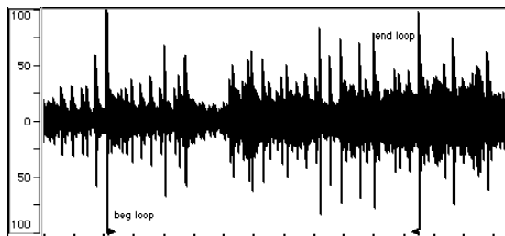
Peak allows you to select and process the left and right channels of a stereo file independently, but you cannot edit (i.e., Cut, Paste, Delete, etc.) the left and right channels of a stereo file independently.



A waveform with a Marker (named “Verse2”)

A Marker

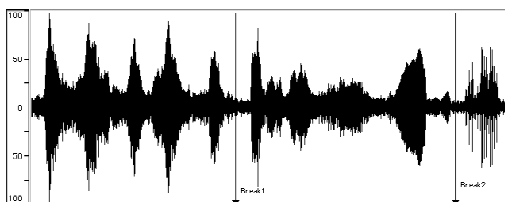
A marker can be placed in a document to identify a point of importance. A marker appears as a line with a solid triangular base. Peak allows you to place markers into a document in order to mark a given location or region in a document for later selection, navigation, or editing. Markers can be moved, named and renamed, “anchored” to a particular location on a waveform, and given other attributes. The use of markers is covered in greater detail later in this chapter.



A waveform with loop markers

A Loop

A loop refers to a section of audio that is bounded on either side by loop markers. In the illustration above, the area that falls between the loop markers “beg loop” and “end loop” is looped. Loops are used to sustain or repeat a section of audio. They can be used for material that you intend to transfer to a sampler, or simply for playback within Peak itself. Peak allows you to create one loop per audio file.



A waveform with 2 adjacent markers (named “Break #1 and Break #2”)

Audio Between Adjacent Markers

Audio between adjacent markers refers to a section of audio that is bounded by markers. In the illustration above, the area that falls between the Break #1 and Break #2 markers is audio between markers. (Note: A selection of audio between markers is different than an audio Region. Regions are described later in this chapter, as well as in Chapter 6, Playlists and Audio CD Burning.)

Audio Info Area

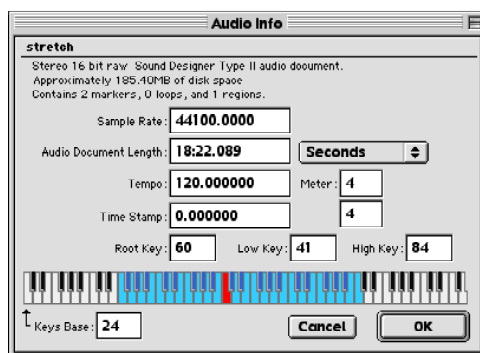
The gray bar at the lower left of each Peak Audio Document is the Audio Info Area. The Info Area shows the sample rate, bit resolution, file format, and file size of the audio file.

44.1kHz 16-bit Stereo raw Sound Designer II [185.40MB]

Audio Info Area

Audio Info dialog

Clicking on the Audio Info Area, or selecting Audio Info from the Preference menu (⌘-I), will open the Audio Info dialog. The Audio Info dialog allows you to change the sample rate, duration, root key (for use in a sample playback instrument), and high and low key range. Note that by changing the sample rate, the pitch and duration of the audio will be affected. (To change the sample rate of an audio document without changing the pitch, use the Sample Rate Conversion command from the DSP menu, or click on the appropriate Toolbar icon.) The Audio Info dialog is described in more detail later in this chapter, as well as in Chapter 11: Menus.



Audio Info dialog

The Info Strip

The Info Strip is anchored to the bottom of the screen. This strip contains three areas—the cursor location display, a time display, and audio bar graph meters with clip/peak indicators. The Info Strip is a useful editing and recording tool. It contains dynamically updated information about where the cursor is, the duration of the current selection, elapsed time during

playback, and the relative volume of the audio signal as it plays. Each area also shows additional information during different Peak actions, as described below.



The Info Strip

Cursor Location Display

The cursor location display tracks the vertical and horizontal movement of the cursor. If audio is selected, it also displays information about the duration of the selection.



Cursor Location Display

Cursor and Selection Information

Here is how to read the cursor and selection information that appears in the Cursor Location display.

y = the current cursor position along the vertical scale (amplitude) or start point of a selection

X = the current cursor position in samples

[L] = the cursor is currently positioned over the left channel of the audio

[R] = the cursor is currently positioned over the right channel of the audio

DTR = distance in current units to the nearest reference marker

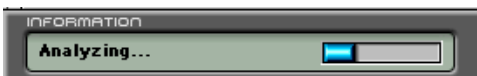
sel = the duration of the current selection

+ or - = indicates positive or negative phase

The time format displayed in this field depends on which time format (samples or seconds) you have chosen with the Units command in the Preference menu.

Progress Bar

The Cursor Location display changes to a progress bar during audio processing, and while saving or opening audio files.



Progress Bar

Time Display

The Time Display is like a counter. It shows elapsed time and tracks the “playback head” as audio plays. Clicking on the waveform when playback is stopped will cause the current cursor location to appear in the Time Display. This display will also show the time remaining while performing Open, Save or DSP processing actions.



Time Display

Meters

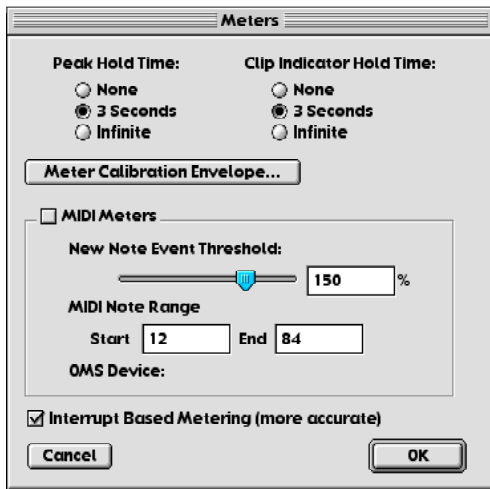
Peak’s meters are much like the VU or LED meters on a mixing board or tape recorder. They are bar graph meters that show the relative volume or loudness of the audio as it plays. They are also designed to show peak volume and whether the signal has “clipped,” or distorted.



Meters

The Meters dialog

You can configure the Meters display by choosing Meters from the Audio menu, or by clicking the appropriate button in the Toolbar. Using the Meters dialog, you can select the Peak Hold time, Clip Indicator Hold Time, and also configure the MIDI Meters. The Peak Hold indicators appear as yellow bars at the far right of each of the bar graphs as audio plays, and selecting a hold time causes the indicator to pause for easy reading of the peak value during playback. The Clip Indicators appear as red bars at the far right of each of the bar graphs as audio plays, and are triggered when audio distorts, or “clips”, and selecting a hold time causes the indicator to pause for easy reading of any clipping or distortion that occurs during playback. Setting the Peak Hold and Clip Indicator Hold Times to None turns these features off.



Meters dialog

MIDI Meters

The MIDI Meters section of the Meters dialog allows you to configure Peak to send a MIDI note-on message to any OMS device in your system. You set a threshold in this dialog, and every time the threshold is met during audio playback, a MIDI note-on is sent. This is particularly useful with Steinberg's XPose Visual Sampler. You can enable the MIDI Meters by selecting the checkbox in the Meters dialog. You can then "tune" the sensitivity of the MIDI Meters by selecting a Threshold value with the slider, select a MIDI Note Range to send the note-on events to, and choose the OMS Device you wish to trigger during audio playback.

LE The Meters dialog is not available in Peak LE.

! Note that older Macintosh computers, such as the Macintosh 7100/80, may be too slow for the Interrupt Based Metering. You may need to disable Interrupt Based Metering in the Meters dialog to avert pops and clicks during playback.

Selecting Audio

In order to perform any type of editing action on an audio document, first you must select the portion of the document that you wish to modify. Peak has several techniques for making and modifying selections.

To make a selection with the mouse:

- Click the cursor at the desired location in the audio document and drag to select the desired range.

To extend or shorten a selection:

- Make a selection with the mouse as explained previously.
- Hold down the Shift key and click on the end of the selection that you wish to modify.
- Drag the mouse to extend or shorten the selection. When you are satisfied with the length of the selection, release the mouse.

To select audio between two markers:

- Hold down the Command key (⌘) and click anywhere in between two markers. (Markers are explained in detail in the next section.) Peak selects the audio between the markers.
- If there are additional markers in the document and you wish to extend the selection to encompass other portions of audio that fall between the markers, hold down the Shift key and the Command key, and click between another two markers. The selection will extend from the originally selected audio to the audio that you just added.
- Repeat as desired to navigate to and select additional audio between markers.

To select audio between two markers with the Tab key:

1. Create markers at several locations in the document with one of the techniques explained in the next section.
2. Press the Tab key on your computer keyboard. Peak selects the portion of the waveform that lies between the first two markers in the document.
3. Press the Tab key again to select the portion of audio between the next two markers. (If you hold down the Shift key while tabbing the selection through the audio file, you can add each successive area to the selection.)
4. Repeat as desired to navigate to and select additional audio.

To select all audio in a document:

- Choose Select All from the Edit menu or press ⌘-A on your Macintosh keyboard.

Auditioning Audio

It is often useful to audition a selection along with just a bit of audio preceding or following it—without actually including this material in the selection itself. Peak’s Auditioning command allows you to do this by specifying a desired amount of pre-roll or postroll when you play the selection.

To audition audio with pre-roll or postroll:

1. Choose Auditioning from the Preference menu. The Auditioning dialog appears.



The Auditioning dialog

2. Enter the desired amount of pre-roll and postroll and click OK.
3. Click the cursor in the audio document and drag to select the desired range.
4. Press Control-Spacebar. Peak plays the selection, adding the amount of pre-roll and postroll that you specified.

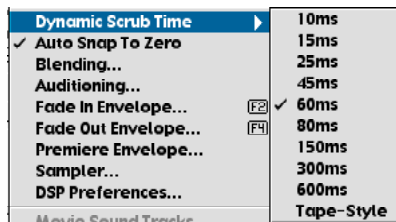
Scrubbing

Dynamic Scrubbing

Peak provides a unique audio auditioning technique called dynamic scrubbing. This feature is very useful for precisely pinpointing and selecting a desired location in an audio document. Dynamic scrubbing allows you to drag the mouse forward or backward over a waveform while Peak plays a short loop (between 10 and 600 milliseconds) at the scrub location. When you have found the location you are looking for, you can commence editing. Peak allows you to choose the length of this playback loop with the Dynamic Scrub Time command in the Preference menu. Peak provides two type of dynamic scrubbing: dynamic shuttle scrubbing and dynamic jog scrubbing. Both are described below.

To select a loop duration for dynamic scrubbing:

- Choose Dynamic Scrub Time from the Preference menu, and choose a duration from the hierarchical submenu. Typically, a value of between 40 to 80 milliseconds works well.



To use dynamic “Shuttle-type” scrubbing:

1. Hold down the Control key and click and drag the mouse across an area of the audio document in the audio document window. As you drag the mouse, Peak plays a short loop of the audio at the insertion point. You can control the tempo and direction (forward or backward) of playback by dragging the mouse slower or faster, forwards, or backwards.
2. Release the mouse button to stop scrubbing. The insertion point will be exactly where you left off scrubbing.
3. To make a selection starting at the current scrub point, stop scrubbing, hold down the Shift key, and click the mouse to extend the selection from the insertion point to the desired location.

Jog Scrubbing

Peak provides a variation of the dynamic scrubbing feature which is similar to a technique known in recording studios as jog scrubbing. With this technique, Peak actually engages playback and moves through the file at its normal pace, but allows you to control the playback point by dragging the mouse. You can control the direction (forward or backward) of playback by dragging the mouse forwards or backwards. This scrubbing mode affords a greater degree of control when you are “zoomed out” in the audio document window.

To use dynamic “jog” scrubbing:

1. Hold down the Control key and Option key and drag the mouse across an area of the audio document in the audio document window. As you drag the mouse, Peak engages playback while it loops a short portion of the audio at the insertion point. Dragging the cursor farther away from the current insertion point increases the velocity of scrubbing.
2. Release the mouse button to stop scrubbing. The insertion point will be exactly where you left off scrubbing.

3. To make a selection starting at the current scrub point, stop scrubbing, hold down the Shift key, and click the mouse to extend the selection from the insertion point to the desired location.

Since jog scrubbing mode is engaged by pressing the Option key in combination with the Control key, it is possible to toggle back and forth between jog and shuttle modes simply by pressing or releasing the Option key.

Tape-Style Scrubbing

In addition to dynamic scrubbing feature, Peak provides tape-style scrubbing. To enable tape-style scrubbing, set the Dynamic Scrub Time under the Preference menu to Tape-Style.



Tape-style Scrubbing requires Sound Manager version 3.3 or later. Please also note that QuickTime 4.0.1 does not support tape-style scrubbing. If you are running QuickTime 4.0.1 you will want to update to a more current version of QuickTime.

To start tape-style scrubbing:

- Hold down the Control key on your keyboard, and then click and drag the mouse at the location where you wish to begin scrubbing.

To deactivate tape-style scrubbing:

- Release the mouse and Control key.

To control tape speed in tape-style scrubbing:

1. As you drag the mouse towards the right, scrubbing speed will increase.
2. As you drag the mouse toward the left, scrubbing will slow down.
3. If you drag the mouse to the left of the point where you started scrubbing, the scrub direction will change from forward playback to backwards playback.

The playback bar will show the scrubbing speed at the top of the playbar. Playback speed can vary from minus

four times (-4.0x) to four times (+4.0x) original playback speed.

Using Unlimited Undo and Redo

Peak maintains an internal list of the edits that you perform during the course of an editing session. These changes are not permanently applied to the file until you save it. This gives Peak unlimited undo and redo capability. Through the use of the Macintosh's standard Undo and Redo commands, you can undo and redo your actions sequentially; or by using the Edits command, using a "playlist-style" editing event list. This powerful capability allows you to maintain complete creative freedom of choice—right up until the last moment before you save your project to disk. The only limitation in using Redo is that if you insert a new action when a redo action is available, you will no longer be able to redo. Remember, as soon as you perform an editing action other than Undo in Peak, Redo is no longer available.

To undo an action:

1. Perform an edit (such as cutting audio or moving a marker).
2. Choose Undo from the Edit menu (⌘-Z) or Toolbar. The action is undone.
3. You can continue undoing actions until you return to the original state of the audio document (the state at which it was last saved). When there are no actions left to undo, the Undo menu item will appear grayed out.

To redo an action:

1. If you wish to redo the action that was undone, choose Redo from the Edit menu (⌘-Y) or Toolbar. The action is redone.
2. You can continue redoing actions until there are none left to redo. When there are no actions left to redo, the Redo menu item will appear grayed out.

Using the Edits Command to Undo a Series of Actions

Peak's Edits command provides you with a second unique and powerful method of undoing virtually any number of editing actions performed on an audio document since you last saved it. You can think of the Edits command as a kind of "event list-based" undo with a list of all your editing actions since you last saved. Using this list, you can navigate back in time to the point at which you performed a particular edit, and if you wish, undo it. Once you have returned to an earlier state in the project, you are free to start editing from that point on.

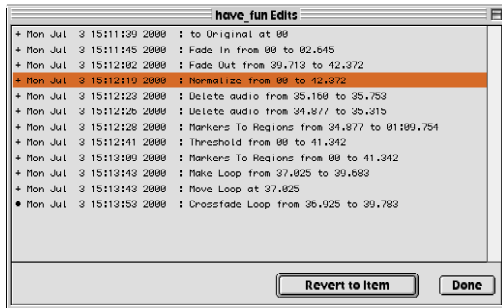


Be aware that if you do go back to a past action and perform a different action at that state in the project, any edits that originally occurred after will be gone, and you won't be able to redo them.

To use the Edits command to return to or undo an action:

1. Perform several edits. (Don't use the Save command or you won't be able to undo any edits that occurred before you saved.)
2. Choose Edits from the Edit menu. A dialog appears listing the edits you have performed since you last saved the document.
3. In the list, double-click on the description of the action you wish to return to (or click the Revert to Item button). Peak returns the document to the state it was in at the time of that edit.
4. If you wish to undo a particular action, locate the action that immediately precedes the one you wish to undo, and double-click it. Peak returns the document to that state.
5. When you have finished, click Done.

Please note that Peak will remain in the state of the action that you last selected in the Edits dialog. If you begin new edits from this point, you will change the original sequence of edits that followed this point in the editing session.



The Edits dialog

Essential Editing Functions

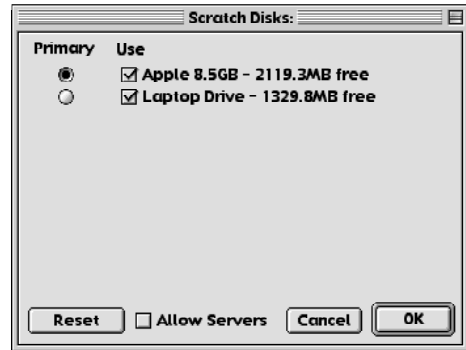
Peak supports all of the Macintosh's essential editing functions such as cut, copy, and paste and provides several more specifically designed for audio editing. This section explains how to use each of these functions.

Because Peak allows you to have multiple audio documents open at the same time, it is possible to conveniently cut, copy, paste, and insert audio between documents. This makes combining material from several audio documents very fast and easy.

Scratch Disks

Because audio data can be very large, Peak utilizes a portion of your hard disk's free space to hold audio data that has been cut or copied, as well as for temporary or scratch files for undo purposes. If you have more than one hard drive attached to your Macintosh, the Scratch Disks command in the Preference menu allows you to choose the hard drives (or "scratch disks") that you wish to use for these temporary files. Peak allows you to select which disk you want to have as your default, or "Primary" disk for this purpose--ideally you would select the disk that has the most free space. If you are connected to a file server, you can utilize available storage on the server by clicking the Allow Servers checkbox (that is if you

have a very fast server connection). Any available servers will then appear in the Scratch Disks pop-up menu. This is recommended only if you have access to a high-speed Ethernet, Media Net, or other fast server.



The Scratch Disks dialog

Clearing the Clipboard to Reclaim Disk Space

If you no longer need the clipboard contents, you can free up the disk space occupied by the clipboard by choosing the Clear Clipboard command from the Edit menu.

Cutting Audio

The Cut command (⌘-X) allows you to cut a selected range out of an audio document. Audio that occurs after the cut slides over to fill in the gap. By cutting and pasting "pieces" of audio, you can freely rearrange material in an audio document. This can be a powerful tool for creating audio remixes for music-oriented applications, as well as an indispensable tool for general sound design tasks. When you cut a selection, the Macintosh holds the cut audio data in its internal memory (the Clipboard) in case you wish to paste it elsewhere. Because all real time editing you do with Peak is nondestructive, the audio isn't actually removed from the original audio document until you finally save the file to disk with the Save command. At that time, all edits are saved and any changes that you have made are permanently saved to the audio document.

To cut a selection:

1. Click the cursor at the desired location in the audio document and drag to select the desired range.
2. Choose Cut from the Edit menu (⌘-X) or Toolbar.
3. The selected range is removed from the audio document(s) and held on the Clipboard. Audio occurring after the cut slides over to fill in the gap.

Deleting Audio

If you wish to remove a section of audio from an audio document without using the Cut command, you can use the Delete key, or the Delete button on the Toolbar. As with the Cut command and other editing functions, the audio isn't actually removed from the original audio document until you save the file to disk.

To delete a selection:

1. Click the cursor at the desired location in the audio document and drag to select the desired range.
2. Press the Delete key, or click the Delete button on the Toolbar.
3. The selection is removed from the audio document. Audio occurring after the deleted section slides over to fill in the gap.

Copying Audio

The Copy command (⌘-C) copies the current selection to the Macintosh's Clipboard (or internal memory buffer) so that you can paste it, insert it, or use it with optional "Clipboard-based" processing such as Add, Convolve, Mix, and Modulate. As with the Cut command, copying and pasting "pieces" of audio, allows you to freely rearrange material in a document. This can be a powerful tool for creating audio remixes for music-oriented applications, and an indispensable tool for sound design.

To copy a selection:

1. Click the cursor at the desired location in the

audio document and drag to select the desired range.

2. Choose Copy from the Edit menu (⌘-C) or Toolbar.
3. The selection is copied to the Clipboard.

At this point, you can use either the Paste or Insert commands to place the copied audio into an audio document. Each of these commands are explained below.

Pasting Audio

The Paste command (⌘-V) allows you to paste the contents of the Clipboard into a location that you choose by placing an insertion point. Pasting audio deletes any selected audio and inserts the clipboard audio at the insertion point. Blending can be used with the Paste command if you have made a selection—the Pasted audio will be crossfaded with the audio on either side of the selection according to the Blending Envelope and Duration.

By cutting and pasting pieces of audio, you can freely rearrange material in an audio document. In musical applications, this gives you the freedom to entirely "rewrite" compositions by changing the order of things, repeating desired sections, and so on. In sound design applications, this gives you the power to "compose" with sound by creating audio collages.

To paste audio into an audio document:

1. Click the cursor at the point where you wish to paste the audio data in an audio document or make a selection of audio you want to delete and replace with the contents of the clipboard.
2. Choose Paste from the Edit menu (⌘-V) or Toolbar.

The Clipboard contents are pasted into the audio document(s), beginning immediately after the insertion point. Any selected audio at the location of the paste is overwritten when the pasted data is inserted into the audio document.

Replacing Audio

The Replace command allows you to paste audio data over existing audio—to paste audio into an audio document without pushing all data to the right of the insertion point farther to the right (later in time) to accommodate the newly pasted audio. The Replace command is useful for “laying over” a portion of audio while maintaining the timing of the original document.

To replace audio into an audio document:

1. Click the cursor at the point where you wish to replace the audio data in an audio document.
2. Choose Replace from the Edit menu or Toolbar. All data to the right of the replaced audio maintains their time position.

Inserting Audio

The Insert command (⌘-D) allows you to paste audio data into an audio document without overwriting any existing data at the insertion point. When you paste data with the Insert command, all data to the right of the insertion point or selection start is pushed farther to the right (later in time) to accommodate the newly pasted audio. The Insert command is one of Peak’s most useful tools for restructuring the contents of an audio document. It is particularly good for “composing on the fly” since it allows you to cut and insert pieces of audio—musical phrases, riffs, or simply textural sounds—to create a composition or soundscape.

To insert audio into an audio document:

1. Click the cursor at the point where you wish to insert the audio data in an audio document.
2. Choose Insert from the Edit menu (⌘-D) or Toolbar. All data to the right of the insertion point is pushed farther to the right (later in time) to accommodate the newly pasted range.

Cropping a Selection

The Crop command (⌘-`) allows you to make a selection in an audio document and quickly and easily remove all other audio from the audio document

except the selection. The Crop command is a particularly useful tool for editing material to be used as samples or sound effects, since it allows you to isolate and save just the desired portion of a recording.

To crop a selection:

1. Click the cursor at the desired location in the audio document and drag to select the desired range.
2. Choose Crop from the Edit menu (⌘-`) or Toolbar.

All audio but the selection is removed from the audio document.

New Document from Selection

The New Document from Selection command will automatically create a new Audio Document containing the selected audio from the source document.

To create a new document from a selection:

1. Make a selection in any open audio document that you want to have as its own document.
2. Choose Document from Selection from the New submenu under the File menu (Control-⌘-N).
3. A new audio document will be created with the selected audio.

Silencing a Selection

The Silence command (⌘-E) replaces the selected audio in the audio document’s selection with silence. This feature is very useful for silencing nonessential portions of a recording that contain an unusual amount of noise. This can be used very successfully with spoken material such as dialog or narration to remove noise between words or during pauses in speech. It can also be used to remove pops or clicks that occur in such material.

To silence a selection:

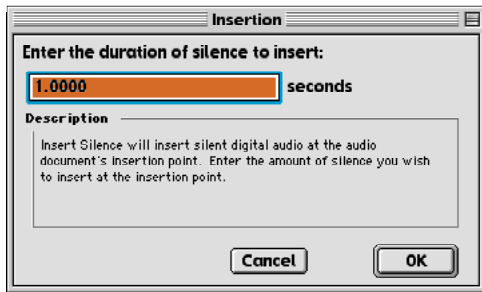
1. Click the cursor at the desired location in the audio document and drag to select the desired range.

2. Choose Silence from the Edit menu (⌘-E) or Toolbar.

The selected audio is replaced with silence.

Inserting Silence into a Document

The Insert Silence command allows you to insert a specific amount of silence into an audio document at the current insertion point. This feature is very useful for inserting pauses of a desired duration into a recording, and can be particularly useful in adjusting the timing or rhythm of spoken material such as dialog or narration. When you choose this command, Peak will prompt you to enter the amount of silence you wish to insert. You can enter this value in samples, milliseconds, or seconds. All audio occurring after the insertion point is moved later in time by the amount of the silence that you insert.



The Insert Silence dialog

To insert silence of a specific duration into a document:

1. Click the cursor at the desired location in the audio document.
2. Choose Insert Silence from the Edit menu or Toolbar.
3. In the dialog that appears, enter the amount of silence that you wish to insert into the audio document.

Peak inserts the specified amount of silence into the document.

Show Edits

When you enable the Show Edits command Peak indicates areas of an audio document that you have edited by enclosing these areas with hatched lines. This provides you with a convenient visual reference to portions of the document that have been affected by your editing actions. Once you save a document, the edits are saved, and these indicators will no longer appear.

To enable Show Edits:

- Choose Show Edits from the Preference menu. A check next to this item indicates it enabled.

To disable Show Edits:

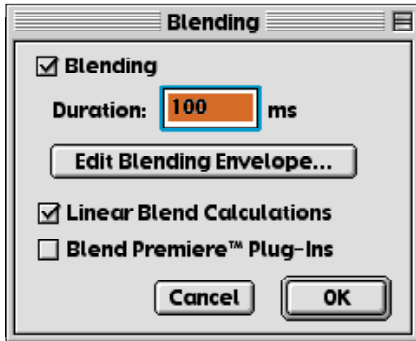
- Choose Show Edits again from the Preference menu. The absence of a check next to this item indicates it disabled.

Using Crossfades and Blending to Smooth Edits

Blending is an automatic crossfade function with a user-editable envelope. Peak can apply blending to areas of an audio document where they are modified by cutting, deleting, pasting, or other editing processes in order to smooth abrupt transitions between waveform amplitudes. It can be very useful for creating a smooth transition between edits that would otherwise sound too abrupt. If you are going to edit (i.e., Cut, Paste, Delete, etc.) a document, you may wish to enable blending to smooth things out a bit. You can toggle blending on or off by choosing the Blending from under the Preferences menu, or by clicking the Blend enable/disable button in the Cursor Palette (Caps Lock key) or in the Toolbar.



The Cursor Bar's Blending Enable/Disable button



The Blending dialog

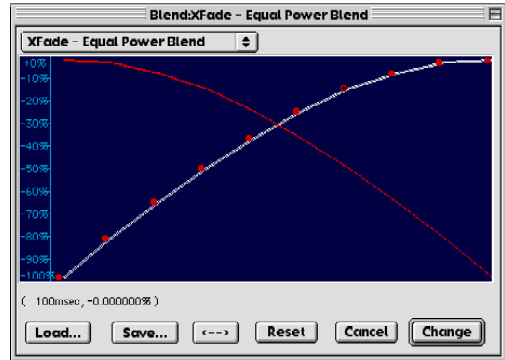
! Be aware that Blending can interfere with certain DSP processes available under Peak's DSP menu, such as Fade In/Out and Normalize. You will typically only want to enable Blending only when you intend to make an edit which Blending may be desirable.

To enable blending and set blending parameters:

1. Choose Blending from the Preference menu or Toolbar, or Option-click on the Blending button in the Cursor Palette. The Blending dialog appears.
2. Click the Blending checkbox to turn this feature on.
3. Enter a value in milliseconds in the Duration field. Peak will apply a crossfade of this duration across the edit.
4. If you wish to edit the shape of the crossfade that the blending function applies, click the Edit Blending Envelope.
5. Peak's Crossfades are calculated logarithmically to preserve volume levels for crossfaded material. If you want Peak to calculate the Blending Crossfade

linearly, check the Linear Blend Calculations checkbox.

6. Click OK when you have finished.



The Blending Envelope Editor


To select and edit the blending envelope:

1. Choose Blending from the Preference menu and click the Edit Blending Envelope button. The Blending Envelope Editor appears. The envelope shape shown here represents the shape of the crossfade. Peak also comes with several commonly used preset envelopes that appear in the pop-up at the top of all of Peak's Envelope Editing windows (see also Editing a Fade In/Out Envelope). These are stored in the Peak Envelopes folder in your Peak folder.
2. Click anywhere on the line and a new moveable "breakpoint" will appear.
3. Drag the breakpoint to the desired location.
4. Continue creating and dragging breakpoints until you have created the envelope that you desire. If you wish to delete a breakpoint, click on it with the cursor and press the Delete key on your computer keyboard.
5. If you wish to reverse the shape of the envelope you have created, click the "<-->" button. This creates a mirror image of the envelope.
6. If you would like to save your custom envelope for

later use, click on the Save button before exiting the envelope editor. Your custom envelopes will be stored in the Peak Envelopes folder, and will appear in the pop-up at the top of the envelope editor.

7. When you are satisfied with your new envelope shape, click Change to confirm your edits and close the envelope editor. Peak will use this envelope until you change it again.

 *Note that the Blending Envelope will only be applied to an edit if it is configured prior to making the edit.*

 *If Linear Blend Calculations is checked in the Blending dialog, the Equal Power X-fade envelope is very effective for a smooth crossfade that will not result in a dip in the energy of the audio data.*

Creating Fade-ins and Fade-outs

Peak allows you to create fade-ins or fade outs at any point in an audio document. Fade ins/outs can be very useful for smoothly fading in or out of an audio document, or for fading out of one type of audio material into another. Very short fade ins can also be useful for smoothing or removing clicks and pops in a recording. Peak allows you to control the exact “shape” of the fade in/fade out by providing you with preset envelope shapes as well as very precise user-definable envelope controls for the fade. Peak also comes with several commonly used preset envelopes that appear in the pop-up at the top of the Envelope Editing windows. These are stored in the Peak Envelopes folder in your Peak folder.

To create a Fade In:

1. Click the cursor at the desired location in the audio document and drag to select the range you desire. The Fade In will be applied to the audio within this selection.

2. Choose Fade In Envelope from the Preference menu.
3. In the dialog that appears, you can use the default envelope, edit the envelope, or load any envelopes included with Peak or that you have created yourself. (“Editing Fade In/Fade Out Envelopes” is covered in the next section.)
4. Choose Fade In from the DSP menu. Peak applies the Fade In to the selection you have made in the audio document.
5. To hear the completed Fade In, press Option-Spacebar. You will hear the selected audio complete with your Fade In.

To create a Fade Out:

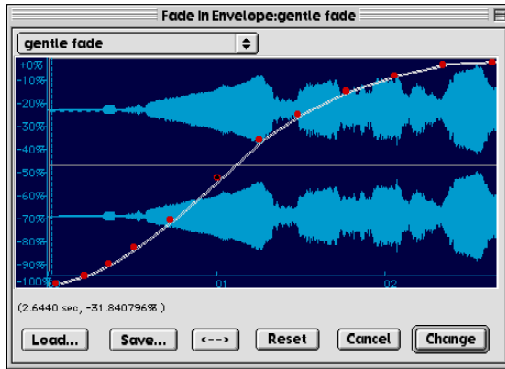
1. Click the cursor at the desired location in the audio document and drag to select the range you desire. The Fade Out will be applied to the selected audio.
2. Choose Fade Out Envelope from the Preference menu.
3. In the dialog that appears, you can use the envelope, create your own, or load any envelopes that you have saved to your hard disk. (“Editing Fade In/Fade Out Envelopes” is covered in the next section.)
4. Choose Fade Out from the DSP menu. Peak applies the Fade Out to the selection you have made in the audio document.
5. To hear the Fade Out, press Option-Spacebar. You will hear the selected audio complete with your Fade Out.

Editing a Fade In/Fade Out Envelope

Peak allows you to control the exact shape of Fade Ins/ Fade Outs by providing you with controls for editing the Fade In/Fade Out envelope. These are found in the Fade In Envelope and Fade Out Envelope commands in the Preference menu.

To edit and save a Fade In/Fade Out envelope:

1. Choose Fade In Envelope (or Fade Out Envelope) from the Preference menu. The Fade Envelope Editor appears. The envelope shape shown here represents the shape of the fade, and overlays the selected audio to show where the curve is graphically applied to the waveform representation of the audio.



The Fade Envelope Editor (a Fade In is shown)

2. Click anywhere on the line and a new moveable “breakpoint” will appear.
3. Drag the breakpoint to the desired location on the envelope’s curve.
4. Continue creating and dragging breakpoints until you have created the fade envelope that you desire. If you wish to delete a breakpoint, click on it with the cursor and press the Delete key on your computer keyboard.
5. If you wish to reverse the shape of the envelope you have created, click the “<->” button. This creates a mirror image of the envelope.
6. If you would like to save your custom envelope for later use, click on the Save button before exiting the envelope editor. Your custom envelopes will be stored in the Peak Envelopes folder, and will appear in the pop-up at the top of the envelope editor.

7. When you are satisfied with your new envelope shape, click *Change* to confirm your edits and close the envelope editor. Peak will use this envelope every time you apply a Fade In (or Fade Out) until you change it again.



Note that the Fade In/Fade Out Envelope will only be applied to a selection if it is configured prior to applying the Fade In/Fade Out DSP function.

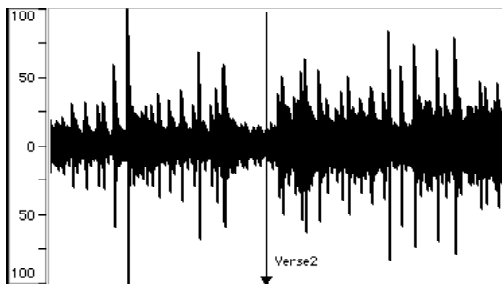
To load a Fade In/Fade Out envelope:

1. Choose Fade In Envelope (or Fade Out Envelope) from the Preference menu. The envelope editor appears.
2. Click the Load button.
3. In the dialog that appears, locate and select the fade envelope that you desire, and click Open.
4. Click Change to confirm this new envelope and close the envelope editor. Peak will use this envelope until you change it again.

Creating and Using Markers

Peak has a very powerful set of features to control the placement and modification of markers. Markers are locations in an audio document that you define as important. By marking specific locations in a recording, you can navigate easily to a location for selection, editing or playback purposes.

Markers can also be made into as loops. Loops are used to sustain or repeat a section of audio. They can be used for material that you intend to transfer to a sampler, or simply for playback within Peak itself. Peak allows you to create one loop per audio file. Loops are covered in greater detail later in this chapter.



A marker in the Waveform Display

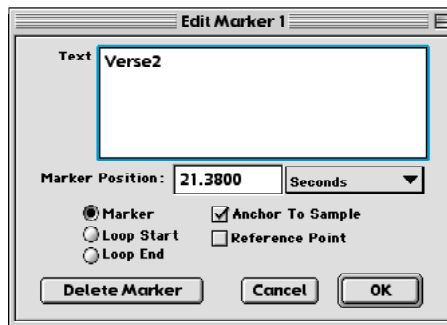
Creating Markers

As we'll describe in detail on the next few pages, there are two ways to create markers: by dropping them "on the fly" during playback, or by defining them with the mouse when playback is stopped. Of the two, the mouse method is perhaps the more precise. However, since it is possible to fine tune the location of a marker at any time by dragging it (or by using the Edit Marker dialog, explained later). Both methods work equally well.



Remember that if Auto Snap To Zero is enabled the insertion point will snap to the nearest zero-crossing. This will cause your marker be placed at the nearest zero crossing when you use the mouse to create or place a marker.

Once you have created a marker, you can assign or edit the marker's attributes in the Edit Marker dialog. Double-click the triangular base of the marker to open the Edit Marker dialog.



The Edit Marker dialog

Text

You may wish to give markers meaningful names (up to 256 characters long) based on their locations in an audio document. Peak gives markers default numeric names based on the name of the audio document and the order in which the marker was defined. To name or rename a marker, simply type the new name in to the Text field of the Edit Marker dialog.



You can easily find any marker, region, or loop that you have named by simply typing the first few letters of its name. For example, if you want to locate a marker called "Solo," just type s-o-l, and Peak will automatically scroll to the marker called "Solo." If you hit Enter or Return after typing the characters, Peak will also automatically place the insertion point at that marker. If more than one marker matches the letters you type in, Peak will locate the first marker with that name. (Note that numerical marker name entries will only work from the keypad, not the numbers keys along the top of your keyboard.)

Marker Position

The Marker Position field allows you to move a marker to a specific time location in an audio document by entering the desired value. The pop-up menu to the right of this field allows you to choose a time format (samples, seconds or milliseconds) for the value that you enter in the Marker Position field.

Marker, Loop Start, and Loop End

These three radio-style buttons allow you to define whether the marker is a regular marker or a loop marker. If you choose to designate the marker as loop marker, you can define it as either the loop start or the loop end by clicking on the corresponding radio button. *Remember, Peak allows only one loop per audio file.*

Anchor To Sample

When you insert or delete audio that is near a marker, you may want the marker to move with that particular location on the waveform. This will compensate for the insertion or deletion, so that the marker remains with the particular portion of audio you want it to be associated with. By enabling the Anchor feature for a marker, you can assure that Peak will “tie” the marker to a location on a waveform, causing it to stay with that location even when audio is inserted or deleted into the document. By default, Peak enables this feature for markers, loops and regions.

Reference Point

By defining a marker as a reference point, you can use the marker as a reference when you make selections or move other markers. Selecting or dragging the marker will then automatically display the distance to the closest reference marker in whatever time format (samples or seconds) is currently selected in the Peak application. This may be useful, for instance, if you know that you want a particular sound event (such as a car door slam) to happen a certain number of seconds before or after another sound event (such as a tire squeal).

Delete Marker

The Delete Marker button allows you to remove the currently selected marker from an audio document.

The following section explains how to create markers and define their attributes.

To create a marker when playback is stopped:

1. Click the mouse at the desired location in the audio document. A dotted vertical line appears, indicating the insertion point.
2. Press ⌘-M on your computer keyboard or choose New Marker from the Action menu or Toolbar. Peak will drop a marker at that location.

To create a marker during playback:

1. Begin playback of an audio document.
2. At the desired point during playback, press ⌘-M on your computer keyboard. Peak will drop a marker at that location.
3. Repeat as desired as playback continues. Each marker will appear at the appropriate location in the audio document window.

To create a marker using dynamic scrubbing:

1. Hold down the Control key (or Control-Option for jog-type scrubbing) and drag the mouse across the desired location to scrub playback.
2. At the desired point during playback, release the mouse to stop scrubbing.
3. Press ⌘-M on your computer keyboard. Peak will drop a marker at that location.

To name a marker or set other marker attributes:

1. Double-click on the triangular base of the marker that you wish to edit. The Edit Marker dialog appears.
2. Enter a name for the marker.
3. Change other attributes of the marker as desired. For an explanation of each of these attributes, refer to the beginning of this section.
4. When you have finished, click OK to close the Edit Marker dialog. The marker now has the attributes you selected.

To move a marker to a new location:

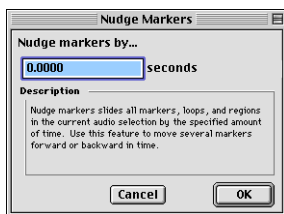
1. Click on the triangular base of the marker and drag it to the desired location.
2. To make a marker's position snap to a zero-crossing (the point at which a waveform crosses the center phase line) as you drag it, hold down the Shift key while you drag.

To move a marker to a new location numerically:

1. Double-click on the triangular base of the marker. The Edit Marker dialog appears.
2. Choose the desired time units (samples, seconds, or milliseconds) from the time format pop-up menu.
3. In the Position field, enter the precise time location that you wish to move the marker to.
4. Click OK to close this dialog. Peak moves the marker to the location you entered in the dialog.

To nudge a marker or a selection of markers to a new location:

1. Make a selection that includes the marker (or markers) that you wish to nudge.
2. Choose Nudge Markers from the Action menu or Toolbar. The Nudge Markers dialog appears.



The Nudge Markers dialog

3. In the Nudge Markers by... field, enter the number of seconds (positive or negative) by which you wish to nudge the marker.
4. Click OK to close this dialog. Peak nudges the marker by the value you entered in the dialog.

To delete a marker:

1. Double-click the triangular base of the marker. The Edit Marker dialog appears.
2. Click the Delete button. The marker is deleted from the audio document.
3. Click OK to close the Edit Marker dialog.

To delete markers in a Selection:

1. Make a selection in the audio document that contains the markers you want to delete.
2. Choose Delete All Except Audio (Option-Delete) from the Action menu and all markers, regions, and loops in the selection will be deleted.

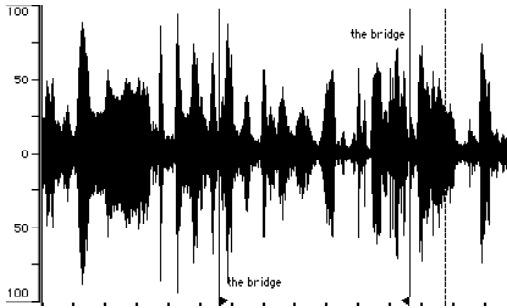
Regions

Regions are portions of an audio document defined by Region Markers using the New Region command from the Action menu (⌘-Shift-R) or Toolbar. Regions present in currently open audio documents will be listed in the Contents window.

Peak's use of Regions will be discussed further in the chapter on Playlists and CD Burning.



Regions can be saved only into AIFF and Sound Designer II files created by Peak. However, Peak will also read Regions stored from other programs in Sound Designer II files. The method Peak uses to store Regions in AIFF files is specific to Peak and is not necessarily supported by other software applications. If you are using Regions with other programs, you will want to store your files as Sound Designer II files.



An audio Region (named “the bridge”)

To define a new Region:

1. Make a selection in an opened audio document.
2. Choose New Region from the Action menu (⌘-Shift-R) or Toolbar.
3. Type the name of the Region and click OK. The new Region will appear in the audio document.

To modify the length of the Region by changing the start or end:

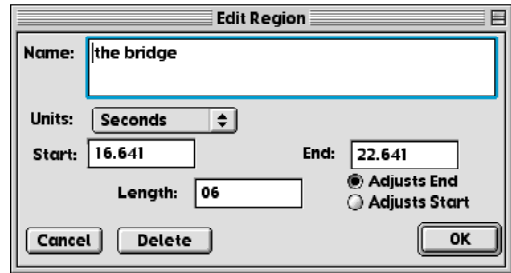
- Drag the start or end marker of the Region in the audio document window.

To move a Region without changing its length:

- Hold down the Option key and drag either the start or end marker of the Region.

To edit a Region’s start, end, or length manually:

1. Double-click on either the start or end marker of the Region in the audio document window. The Edit Region dialog will appear.
2. Enter new values for Start, End, or Length times, then click OK.



The Edit Region dialog

To change the name of a Region:

1. Double-click on either the start or end marker of the Region in the audio document window. The Edit Region dialog will appear.
2. Type the new name of the Region into the dialog and click OK.

To locate a Region:

- Command-click on audio document’s Title bar to display a pop-up menu listing all regions, markers and loops; or, type the first few letters of the Region’s name, or from the Contents Palette.

Creating Loops

If you’re editing music or other rhythmically-based material, it is generally a good idea to test a selection to make sure it contains an even number of beats before you cut, copy, or paste it. A good way to do this is to loop the selection and listen to the loop as it plays. As described in the next section, Peak includes Loop Surfer, which can automate the process of finding a rhythmically “correct” length of audio to loop, assuming you know the tempo and the number of beats you wish to loop. You can also use the Loop Tuner, found in the DSP menu, to adjust the loop start and end points. The Loop Tuner is also described in the next section.

Loops are useful in material that you plan to transfer to a sampler. Loop markers created with Peak are recognized by samplers as sustain loops. Peak allows you to create only one loop per audio document.

To play a loop in Peak, select Use Loop in Playback command (⌘-L) from the Preference menu or click the loop button on the Cursor Palette, begin playback, and when Peak reaches the loop, it will continue to repeat until you stop playback. If Use Loop in Playback is not enabled, Peak will simply play right through the loop to the end of the audio document or selection.

To create a loop from a selection:

1. Click the cursor at the desired location in the audio document and drag to select the range you want.
2. Choose Loop This Selection from the Action menu (⌘-Shift-") or Toolbar. Your selection is now looped. Loop markers appear at the beginning and end of the loop.
3. To listen to the loop, choose the Use Loop in Playback command (⌘-L) from the Preference menu (a check next to this menu item indicates it is enabled), or click the Loop button on the Cursor Palette, and start playback by pressing the Spacebar on your keyboard.
4. You can interactively fine tune a loop by dragging the loop start or end markers while loop playback is engaged. As you drag a loop marker to a new location, Peak will adjust the playback loop to reflect the changes you make. You can also use the Loop Tuner to call up a dialog that allows you to visually fine tune the loop, and even play the loop while adjusting it to listen to the changes.

To change regular markers into loop markers:

1. Create markers in a audio document.
2. Double-click on the triangular base of the marker that you wish to define as the loop start point. The Edit Marker dialog appears.

3. Click the Loop Start button and click OK. The marker becomes a Loop Start marker.
4. Double-click on the triangular base of the marker that you wish to define as the loop end point. The Edit Marker dialog appears.
5. Click the Loop End button and click OK. The marker becomes a Loop End marker. You have now defined a loop in your audio document.

To move a pair of loop markers together:

- Hold down the Option key and drag one of the loop markers to the desired location. Both markers move in tandem as you drag.

To listen to the loop only:

1. Choose Select Loop (⌘-") from the Edit menu to select the loop.
2. Make sure loop playback is enabled using the Use Loop in Playback command from the Preference menu (a check next to this menu item indicates it is enabled), or by pressing the Loop button on the Cursor Palette.
3. Press the Spacebar to begin playing back the loop.

Crossfading Loops

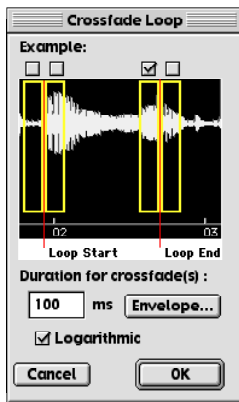
Peak allows you to crossfade the start and end points of a loop. Crossfading a loop can be very useful for smoothing the transition between the end of the loop and its beginning as it repeats. Peak allows you to control the envelope of the crossfade, the duration, and other parameters in the Crossfade Loop dialog.

To Crossfade a Loop:

1. Create a new loop or choose an existing loop.
2. Select the loop by ⌘-clicking between the loop markers.
3. Choose Crossfade Loop... from the DSP menu or

the Toolbar.

4. The Crossfade Loop dialog appears.
5. Choose where you want crossfades to be applied using the check boxes along the top of the Crossfade Loop dialog. Typically, the default for this works well.
6. Enter the Duration for the crossfade(s) in milliseconds.
7. Check whether or not you want the crossfade calculated logarithmically or not (i.e., linearly).



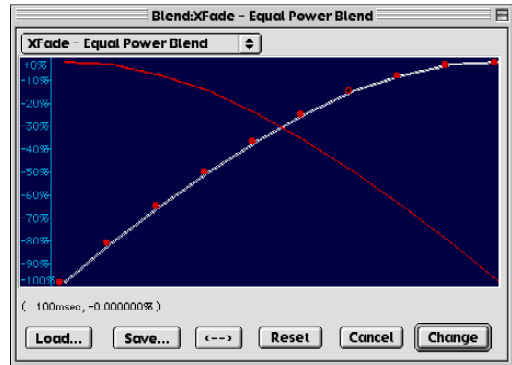
The Crossfade Loop dialog

(LE) *The Meters dialog is not available in Peak LE.*

To edit a Crossfade Loop Envelope:

- Click on the Envelope button in the Crossfade Loop dialog and the Blending Envelope Editor appears.

! *Note that this is the same Blending Envelope Editor that is accessed from the Blending dialog.*



The Blending Envelope Editor

2. Click anywhere on the line and a new moveable “breakpoint” will appear.
3. Drag the breakpoint to the desired location.
4. Continue creating and dragging breakpoints until you have created the envelope that you desire. If you wish to delete a breakpoint, click on it with the cursor and press the Delete key on your computer keyboard.
5. If you wish to reverse the shape of the envelope you have created, click the “<->” button. This creates a mirror image of the envelope.
6. If you would like to save your custom envelope for later use, click on the Save button before exiting the envelope editor. Your custom envelopes will be stored in the Peak Envelopes folder, and will appear in the pop-up at the top of the envelope editor.
7. When you are satisfied with your new envelope shape, click Change to confirm your edits and close the envelope editor. Peak will use this envelope until you change it again.

To hear the completed crossfade, choose Select Loop from the Edit menu, select Use Loop in Playback from the Preference menu or click the Loop button on the Toolbar, and press the Spacebar. You will hear the loop, complete with your crossfade.

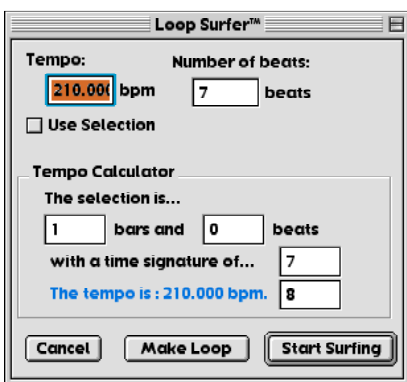
Using Loop Surfer™

Peak's Loop Surfer feature automates some of the steps for setting up loop points. Loop Surfer allows you to "Loop Surf" (adjust your loops during playback) quickly, easily and in a musically intuitive manner.

If you're working with music, and know the music's tempo in beats per minute, you can use Loop Surfer to create a loop which lasts for a rhythmically "correct" length of time.

To use Loop Surfer based on a musical tempo:

1. Place the cursor where you wish to begin the loop (it's okay to place it approximately, rather than exactly, where you wish to start).
2. Choose Loop Surfer from the Action menu (⌘J). The Loop Surfer dialog appears.



The Loop Surfer dialog

3. Type in the music's tempo. If you are not sure of the tempo, you can use the Tempo Calculator to determine the tempo. Simply select a portion of audio, and type in the number of bars and beats in the selection. The calculator will determine the tempo based on your selection. If you are unsure, and have used a drum machine or sequencer to

create the music, you might wish to refer back to its settings determine the time signature and tempo. Additionally, you can use the Threshold command from the DSP menu to select a portion of audio that should correspond to the beat; see "To use Loop Surfer based on a selection" below.

4. Type in the number of beats that you wish the loop to last. The beats are based upon quarter-notes, in terms of musical time. For instance, if your song was in a 4/4 time signature, typing "4" beats would mean the loop would be one measure in length; if the song were in 7/4 time, typing "14" would mean the loop would be two measures in length. (If you are interested in exploring syncopations, however, there's no reason why you can't type a beat value that doesn't correspond to the time signature, such as "5" if the music is actually in "3/4" time.)
5. If you then select the Start Surfing button (the default), Peak will automatically:
 - a) close the Loop Surfer dialog box;
 - b) extend the selection from the cursor insertion point to a calculated length, based upon the tempo and number of beats;
 - c) change the cursor insertion point to a Loop Start marker;
 - d) drop a Loop End marker at the end of the newly calculated selection;
 - e) turn on (if it hasn't already been turned on) the Use Loop In Playback option under the Preference menu.
 - f) begin looped playback of the audio selection, stopping only once you hit your keyboard's Spacebar or press Stop on the Toolbar.
6. If you select the Make Loop button, Peak will automatically:

- a) close the Loop Surfer dialog box;
- b) extend the selection from the cursor insertion point to a calculated length, based upon the tempo and number of beats;
- c) change the cursor insertion point to a Loop Start marker;
- d) drop a Loop End marker at the end of the newly calculated selection;

- e) turn on (if it hasn't already been turned on) the Use Loop In Playback option under the Preference menu.
- f) At this point, you must start playback manually using the Spacebar or the Toolbar if you wish to begin Loop Surfing.


While you're Loop Surfing (adjusting your loop during playback), you're free to perform all of the standard looping functions as described in the previous section, including adjusting the Loop Start and End points during playback. Most importantly, however, since you'll now have a selection that lasts for a period of time that matches the beat, try moving the markers in tandem, by holding down the Option key and clicking and dragging one of the loop markers to the desired location with the mouse. You'll find it's a great way to set up interesting rhythms and syncopations! Peak's interactive editing capabilities also allow you to use the Loop Surfer dialog while a loop plays to adjust the tempo, beats and so on.

If you're *not* working with music (or if you simply don't know the tempo of the music you're working with), you might choose to Loop Surf based upon a selection (or use the Threshold feature), rather than starting at a cursor insertion point.

To use Loop Surfer based on a selection:

1. Place the cursor where you wish to begin the loop, and using the mouse, select the portion of audio you wish to loop. (You can make your selection in a variety of other ways, also, as described earlier, including selecting between markers by ⌘-clicking with the mouse).
- 2) Select Loop Surfer from the Action menu. The Loop Surfer dialog appears.
- 3) If you check the Use Selection box and select either the Start Surfing or Make Loop button, Peak will automatically:
 - a) close the Loop Surfer dialog box;
 - b) extend the selection from the cursor insertion point to a calculated length, based upon the tempo and number of beats;
 - c) change the cursor insertion point to a Loop Start marker;

- d) drop a Loop End marker at the end of the newly calculated selection;
- e) turn on (if it hasn't already been turned on) the Use Loop In Playback option under the Preference menu;
- f) begin looping and playing. The selection will begin looped playback (if you have selected Start Surfing);
- or
- g) wait for you to start playback manually using the Spacebar or the Toolbar if you wish to begin Loop Surfing (if you have selected Make Loop).

 *Loop Surfer is not available in Peak LE.*

Using the Guess Tempo and Threshold commands to find tempo

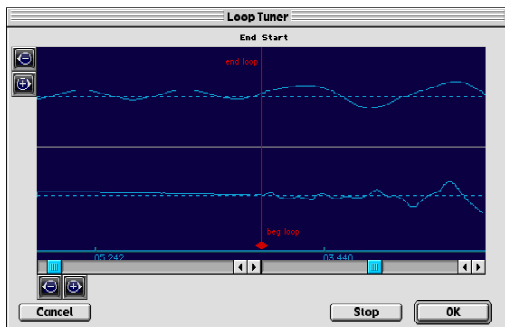
If you are working with music and don't know the tempo—and your music has a relatively pronounced or obvious beat—you can use the Guess Tempo command to have Peak automatically guess the tempo of a selection. Make a selection and choose Guess Tempo from the Action menu. There will be a pause while Peak scans your selection and calculates the tempo for you. A dialog will then appear showing you the estimated tempo in BPM, or beats per minute. You can then enter the estimated tempo in BPM in the Loop Surfer dialog's Tempo field or in the Audio Information dialog's Tempo field.

You can also use the Threshold command (described later in this chapter) to define a number of markers or Regions based on amplitude peaks. If you then select audio with start and end points that correspond to these sections, you should have a selection that precisely matches the musical beat. Using Loop Surfer, you could then automate the process of looping the selection by following the steps described directly above.


Guess Tempo works best with audio selections that contain one full measure of audio with pronounced attacks on the beats, which appear visually on the waveform as taller sections of the audio. Using the Normalize feature on the selection prior to Guess Tempo can improve the accuracy of its deduction.

Using the Loop Tuner

Peak's Loop Tuner provides a way to visually line up the start and end points of your loop to get a smooth transition at the loop points. Loop Tuner also allows you listen to the effects of these adjustments as you make them. If you wish to “tune” a loop you’ve made, simply select Loop Tuner from the DSP menu or Toolbar, and a dialog will appear. The waveform display in the Loop Tuner dialog shows the Start and End points of the loop, which you can visually adjust with the scroll bars at the bottom of the window. The two zoom buttons—magnifying glass icons—in the upper left of the Loop Tuner dialog allow you to adjust the vertical zoom up of the waveform. The two zoom buttons in the lower left hand corner of the Loop Tuner dialog allow you to adjust the zoom view in and out all the way down to the sample level. You can listen to the effects of the adjustments as you make them by clicking on the Play button. To exit this dialog, click on OK to accept the changes, or Cancel to leave the original loop unaffected.



The Loop Tuner dialog

 *Loop Tuner is not available in Peak LE.*

Exporting Regions

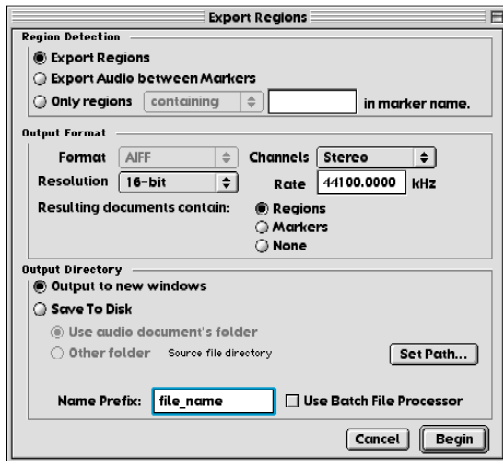
If you have placed markers or Regions in an audio document, Peak's Export Regions command allows you to export those regions from the source document save each of these regions as a separate audio document. This feature is very convenient if you wish to divide a larger file into regions and transfer them as samples into a sample playback instrument, or divide a live concert record into regions and export those regions as separate files. Furthermore, you can use Peak's Batch File Processor to process a file's regions with any of Peak's DSP functions and third party plug-ins during the automatic exporting of regions into new files.

To export regions from an audio document:

1. Select the regions that you wish to export. (You can use the Tab key, Shift-Tab, or if you wish to select the entire document, press ⌘-A.)
2. Choose Export Regions from the File menu.
3. In the Export Regions dialog, choose the parameters that you wish to use for selecting the regions to export.
4. Using the Region Detection options, choose which regions are to be exported.
5. Using the Output Format options, choose the format and resolution you wish for the exported regions.
6. Using the Output Directory options, choose the destination for the exported regions.
7. If you wish the newly exported regions to appear as new open Peak documents, choose Output to new windows.
8. To save the exported regions to disk, select Save To Disk and choose whether you would like to save the regions into the same folder as the source files, or to a different folder. If you prefer to save

to a new folder, use the Set Path button.

9. To export the regions, click Begin. Peak exports each of the regions into its own audio document.



The Export Regions dialog

Region Detection area

To export all regions in an audio document, click the Export Regions button. To export audio between adjacent markers, click the Export Audio between Markers button. To export only regions that are bounded by specific marker names, click the Only Regions button and enter the parameters that you wish to use to select the desired regions. For instance, if you wish to only export only regions bounded by markers with the word “hit” in them, click the pop-up menu, choose containing, and type the word “hit” in the field next to the pop-up. Conversely, if you wish export all regions except those with the word “hit” in them, click the pop-up menu, choose not containing, and type the word “hit” in the field next to the pop-up menu.

Output Format area

Choose the file format, bit depth resolution, and Stereo or Mono from these pop-up menus for the resulting exported audio documents. You can set the

Sample rate in kHz for the resulting files in the Rate field (please note that this will not do sample rate conversions). You can also designate whether the resulting audio documents contain Regions or Markers or not.

Output Directory area

Resulting audio documents can either be output to new open audio document windows or saved to the hard drive. Choose Output to new windows if you want to have the resulting audio documents open in Peak or choose Save To Disk if you just want to write the new audio files to disk without opening them in Peak. If you Save To Disk, you can simply choose to use the original audio document’s folder or you can specify another folder on you hard drive(s) to save the resulting audio documents by choosing Set Path.... The Name Prefix field allows you to include a specified prefix to all the resulting audio documents. The default prefix is the name of the file. Each an every one of the resulting audio documents will be named with the prefix plus the name of the individual region.



Be aware that the Name Prefix plus the name of the region being exported cannot exceed the maximum number of characters for a file name allowed by the Mac OS or Peak will return an error and the Region will not be saved.

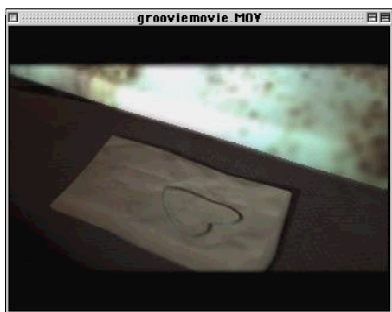
Another exciting feature of the Export Regions function is that you can Export Regions through Peak’s Batch File Processor. First configure that Batch File Processor and turn it on, then, go to Export Regions and check the Use Batch File Processor checkbox. When you begin exporting regions, each region exported will be processed by the DSP processes you choose in the Batch File Processor dialog (see Chapter 7: DSP & Plug-Ins).



Do not save the output of the Batch File Processor to input directory (i.e., a folder that is or is inside a folder of files that are being Batch Processed).

Editing QuickTime Soundtracks in Peak

Peak allows you to edit QuickTime movie soundtracks. While you cannot edit QuickTime video in Peak, you can use Peak as a full-featured audio post-production tool for QuickTime movies. This makes Peak an ideal tool for editing and cleaning up soundtracks, as well as adding sound effects or music to QuickTime movies.



The Peak Movie Window

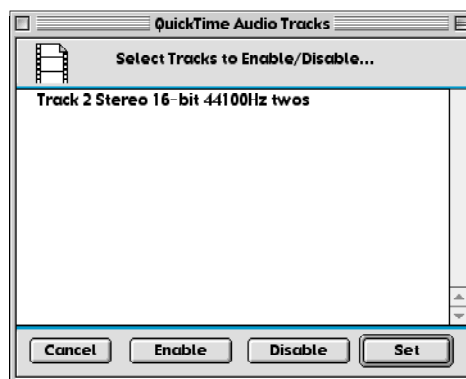
How to open and edit QuickTime sound tracks in Peak:

1. Select Open from the Edit menu (⌘-O) or Toolbar.
2. In the dialog that appears, locate the QuickTime movie that you wish to open.
3. Click the Open button, and Peak will open the QuickTime movie in a movie window, and open the movie's audio track in an audio document window. Use the QuickTime Sound Tracks from the Preferences menu to Enable or Disable the movie's other audio tracks. You can also use this dialog to toggle multiple soundtracks contained in a movie on and off to check balances or "solo" certain tracks. Click on the Set button to accept the changes, or Cancel to leave the movie unaffected. To toggle the Movie Window on or off, choose Movie from the Window menu. A check

next to this item indicates it is enabled.

4. You may now edit the movie's audio track as you would any other audio document. The movie will "scrub" along with the audio, and the placement of the insertion point in the audio document window will also scroll the movie to that point.
5. When you are finished editing the QuickTime sound track, use Peak's "Save As" command to save the movie with its new sound track.

! *Peak will not allow you to import QuickTime movies that have no audio tracks. If you want to add audio to a QuickTime movie that has no audio tracks, use MoviePlayer first to add audio tracks (even empty ones) to the movie, save the movie, and then open the movie in Peak.*



The Movie Sound Tracks dialog

! *Be Careful not to change the duration of the audio using cut, delete, or insert, as this will cause the audio and video to fall out of sync.*

LE *QuickTime Movie support is not available in Peak LE. Peak LE can open and edit QuickTime audio, but it will not open the QuickTime Movie window.*

Conclusion

You have now learned how to manipulate audio with Peak's various editing tools, including how to work with Markers, Loops, and Regions. In the next chapter you will learn more about the use of Regions in Playlists.
