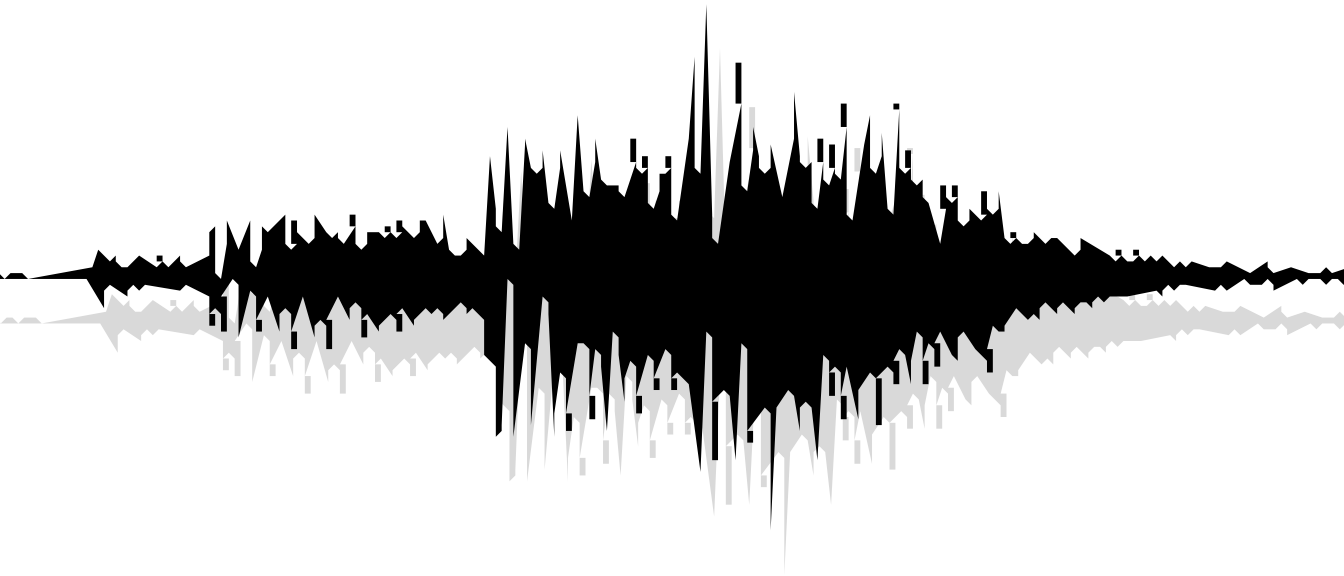


Chapter 6

Playlists & Audio CD Burning



Chapter 6:

Playlists & CD Burning

Introduction

This chapter explains how to use Peak's Playlist feature to sequence audio events. A Playlist is a list of Regions strung together in a specific order. The Peak Playlist is merely a set of instructions that tell the hard disk which playlist regions to "read" in what order. Playlist editing does not permanently alter the original audio data on your hard disk. No matter how many changes you make, your original recordings remain intact. This type of nondestructive editing is one of Peak's most significant and powerful features.

When you edit an audio file within Peak's Playlist window you are not really deleting, moving, replacing, and adding actual audio as you would if you were cutting and splicing analog tape. Instead, Peak is merely creating a "map" of your audio file. This map, or "playlist," simply describes the order in which you want portions of the recording to be played. If you'd like to hear the middle of a song first, the end next and the beginning last, then so be it. Peak will read (e.g., play) from the hard disk (where the audio data is stored) from any number of possible points designated by Region markers, and these Regions can be auditioned in the Playlist in any number of possible arrangements.

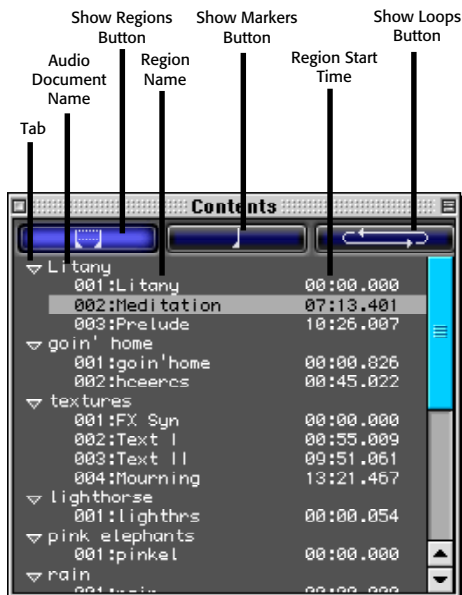
Playlist editing allows you can adjust and re-sequence segments of audio (e.g., Regions) with fluidity and ease. Edits can be heard as soon as you perform them. In addition, Peak allows you to apply Premiere-format audio plug-ins to playlist events in real-time! Peak's Playlist offers a fast, flexible, and powerful approach to editing and processing digital audio.

Peak also lets you burn Blue-Book format, TAO ("Track At Once"), audio CDs from Playlists using Adaptec Toast™ (Adaptec Toast comes bundled with Peak). You can also use Peak's Playlist to create a Jam Image file for burning Red-Book format, DAO ("Disk At Once"), audio CDs using Adaptec's JAM™ (JAM is sold separately). Please consult Adaptec for compatible CD-Burners using either Toast or JAM. You can also bounce (i.e., write to disk) your Peak Playlist as a Sound Designer II file and then import the Playlist Events as Regions into Digidesign's MasterList CD or E-magic's WaveBurner.

Regions

The audio events that are played back in a Playlist are Regions—portions of an audio document defined using the New Region command from the Action menu (⌘-Shift-R) or Toolbar. A Region is defined by Region Markers in the audio document window. All Regions defined in open audio documents will also be listed in the Contents Palette.

Two of the main windows you will use to organize Regions are the Contents Palette and the Playlist. The Contents Palette is available under the Window menu, and will show all of the regions in open audio documents at a glance. You can drag and drop Regions names from the Contents Palette into the Playlist. To display all of the regions in open documents, click on the left "tab" of the named Audio Document listed in the Contents Palette. If you drag and drop an Audio Document's name from the Contents Palette into the Playlist, it will add all the Regions in that Audio Document to the Playlist.



The Contents Palette

Regions can only be saved in AIFF, Sound Designer II, and JAM Image file formats created by Peak. However, Peak will also read Playlist 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 supported by other software applications. If you are planning to use Regions created with Peak in other programs, you will usually want to save your files in Sound Designer II file format.

To define a new Region:

1. Make a selection in an opened audio document.
2. Choose New Region from the Action menu or Toolbar. The Edit Regions dialog will appear.
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:

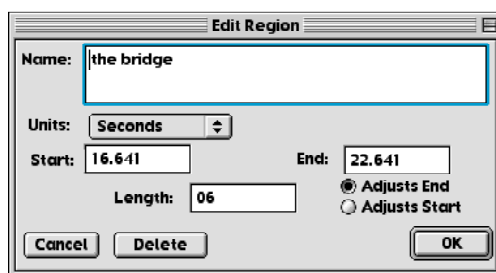
- Drag the start or end marker of the Region in the audio document window.

To move the start and end points of the region together:

- Option-drag on the start or end marker of the Region.

To change the name of a Playlist Region:

1. Double-click on either the start or end marker of the Region in the audio document window, or Option-double-click on the Region name in the Contents Palette. The Edit Regions dialog will appear.



The Edit Regions dialog

2. Type the new name of the Region into the dialog and click OK.

To move a Region without changing its length:

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

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

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

To locate a Region:

- Double-click the Region you wish to locate in the Contents Palette. The audio document will scroll automatically to display the region and

the Playlist Region will become the current selection in the audio document.

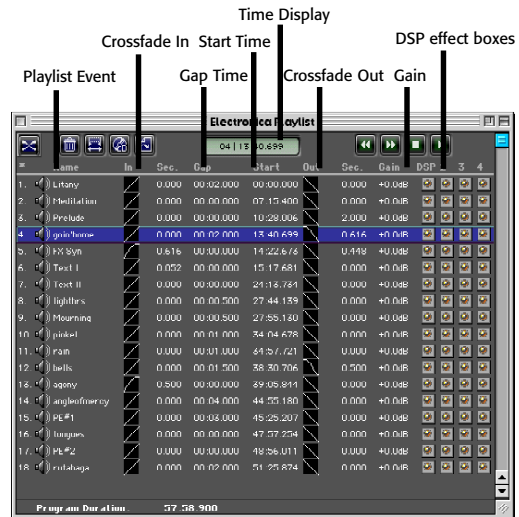
Creating a Playlist

To create a new Playlist:

- Select Playlist Document from the New... submenu under the File menu (⌘-Shift-P). An empty playlist document will appear. The top of the playlist has category titles for each column of information. The bottom of the playlist shows total duration of the playlist.

To add an item to the playlist:

1. Make sure the Playlist is the front-most document in Peak (⌘-P). Select the Contents Palette from the Window menu if it is not already open.
2. Drag and drop the names of the Regions in the Contents Palette into the Playlist to add Regions to the Playlist. Each Region you add to the Playlist becomes a Playlist Event. The center of the Playlist window shows Playlist Events as a sequential list. You may use Regions from multiple audio documents. Any audio documents containing Regions used in the current Playlist must be open in Peak to be available to the Playlist.



The Playlist Document window

! All audio documents referenced by the Playlist must have the same sample rate, number of channels (i.e., mono or stereo), and bit-depth.

The controls along the top of the Playlist window give you access to most of the Playlist functions. There are transport controls at the top right of the window that allow you to audition the Playlist from the currently selected Region, or Playlist Event. There is a time display in the middle of the window. From left to right, the icons in the upper left of the Playlist window are Crossfade Select, Delete, Nudge Regions, Burn CD, and Bounce Playlist buttons.

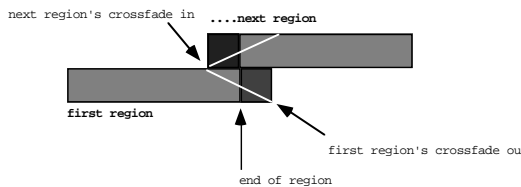


Playlist Icons

A playlist event has several properties that can be modified: crossfade in, gap time, crossfade out, gain, and up to four DSP plug-ins. Since the transitions between one audio event to another can be abrupt, a playlist crossfade can be used to smooth the transition from one audio event to another.

Crossfades between Playlist Events fade out the first region while fading in the next region. Each Playlist Event has separate controls for crossfade in, crossfade out, crossfade-in time, and crossfade-out time. The curve stored in crossfade in is used to fade in the current region. The curve stored in crossfade out is used to fade out into the next region.

Crossfades are stored on disk and are computed before playback. When a crossfade is being calculated, the watch cursor may appear.



The illustration above shows how crossfades are used in playlist events. The audio material from each region overlaps beyond the region boundaries. Overlapping areas are darker in the illustration above. The white diagonal lines correspond the crossfade in and out curves. As the first region ends, the next region's audio material begins to fade in. When the next region begins playing, the first region continues to fade out.

! *It is very important to understand that the Region marker in the referenced Audio Document is the exact midpoint of the fade. Consequently, there must be sufficient audio data on either side of the Region marker. That is, if you have a 60 second crossfade between two Playlist Events, there must be at least 30 seconds of audio data following the end Region marker of the first Playlist Event and at least 30 seconds of audio data preceding the begin Region marker of the second Playlist Event.*

Using the separate crossfade in and crossfade out curves, Peak provides you with the flexibility to create many common crossfade types. These include "Linear Crossfade," "Equal Power Crossfade," "Slow in but fast out Crossfade," "Fast in but slow out crossfade," and

"Overlap transition." Peak is also flexible in allowing you to control crossfade in and crossfade out durations separately. All crossfades are based on overlapping audio from the previous or subsequent regions and then mixing the overlapping material after applying the crossfade curves.

A linear crossfade actually sounds like an equal power crossfade (i.e., no loss of energy in the audio signal), since Peak playlist crossfades are calculated logarithmically.

A Playlist event's gain setting can be used to control the balance of the event in a Playlist. You may need to raise the volume or lower the volume of some Playlist events to maintain a proper balance of volume levels. You can make adjustments to the gain of individual Playlist Events as you playback the Playlist.

! *Be careful not to set a Playlist event's gain too high as you may overload the signal and cause clipping to occur. You may also introduce clicks between Playlist events if the difference in gain between the two playlist events is too large. Crossfades can help smooth these transitions.*

To select items in the Playlist:

- Click on the item in the Playlist that you wish to select. You may use the Shift key to select several items in the Playlist.

To insert items into the playlist:

- To hear your playlist, use the Play button in the Playlist window. The Playlist will begin playback from the current selected playlist event.

To preview transitions between playlist regions

1. Select the playlist event in which you wish to hear the transition.
2. Use the Playlist's Play button or press the Spacebar while holding down the Command key (⌘). The pre-roll setting from the Auditioning... dialog

under the Preference menu will be used to audition from the end of the previous playlist event through the transition into the selected playlist event.

To scrub in the Playlist window:

- While playing audio in a Playlist, hold down the control key and press the forward or reverse buttons in the playlist. The audio will advance "CD-style" in larger increments. Release the mouse when you find the spot you wish to hear. This is useful for moving around quickly in the Playlist's audio to test gain levels and DSP effects for potential clipping. You can also click and drag right or left in the Playlist Window's Time Display.

To select next or previous Playlist event:

- With the Playlist as the front-most window (⌘-P), you can use the arrow keys (up and down arrows) to select the next or previous playlist event. While playing audio in a Playlist, you can use the arrow keys to move playback to the next or previous event in the Playlist during playback. Note that the arrow keys don't work with the control key to scrub during playback. You can also use the Tab key to select the next Playlist event, even during playback.

Modifying Playlist Events

To move items in the playlist:

- Click and drag the Playlist event to the new location. A green line will indicate the new position for the playlist event. Release the mouse button when the green line is at the location you wish to place the event.

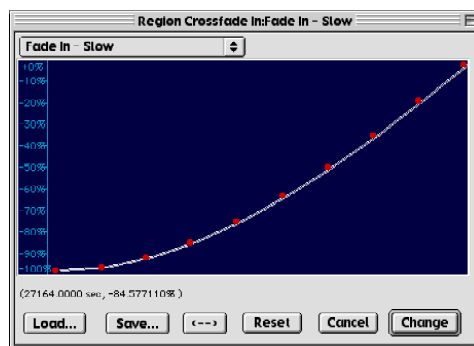
To delete items in the Playlist:

1. Select the Playlist event you wish to delete by clicking on it.
2. Press the Delete key on your keyboard, or click on the Trash Can icon in the Playlist window. The

event will be removed from the playlist, and the audio events below the event will move up. This operation will, of course, decrease the length of the Playlist.

To edit a crossfade in or out:

- Double-click on the Playlist event's Crossfade In or Crossfade Out icon. The Fade Envelope Editor dialog will appear, where you may edit the Fade Envelope for that particular Playlist Event's Fade In or Fade Out.



Fade Envelope Editor

To change Crossfade In or Out duration

- Double-click on the Playlist event Crossfade In time or Crossfade Out time. A dialog will prompt you to enter the duration in seconds for the Playlist Event's Crossfade In or Out.



Crossfades are not available in Peak LE Playlists.



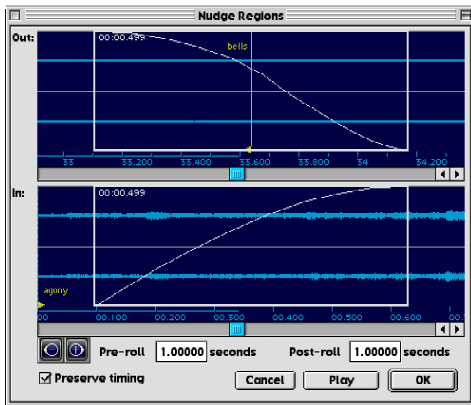
The default setting for crossfade duration in Peak Playlists is 0.

To modify the gap time:

- Double-click on the Playlist event Gap Time (i.e., the time between the beginning of one Playlist Event and the end of the previous one). A dialog will prompt you to enter the desired Gap Time for the selected Playlist Event.

The Nudge Regions Dialog

The Nudge Regions function is useful for fine-tuning the start and end times of Regions in the Playlist as well as adjusting the crossfade times. Access the Nudge Regions dialog by clicking on the icon in the Playlist window. In this dialog you can dynamically adjust start and end times of selected regions by scrolling in the windows, and listen to the changes as you make them by clicking on the Play button.



The Nudge Regions dialog

You can set the Pre-roll and Post-roll in seconds for auditioning the crossfade. If the Preserve Timing checkbox is checked, the duration between the Region markers will remain fixed. If the Preserve Timing checkbox is not checked, the Region markers can be moved independently of one another. The Zoom tools at the left of the window allow you to zoom in to the sample level, or out for a larger view. You can also allocate region Pre-roll and post-roll times in this dialog. By clicking and dragging in the window, you can adjust the fade times for the Fade Out (on top) and the Fade In (on the bottom).



Nudge Regions is not available in Peak LE

Applying Plug-In Effects to Playlist Events

You may apply up to four Premiere plug-in effects processes per Playlist Event. This powerful feature allows you to place different effects on different events that are processed in real-time. This is very useful, especially for creating remixes. Peak will also let you process Playlist audio with any active VST plug-ins. However, VST plug-ins will process the entire Playlist and cannot process Playlist Events independent of one another.

Please note the number of effects you can use is limited to the CPU speed of your Macintosh. Some effects, such as Waves TrueVerb™, may not be able to run in real-time on slower CPU's. In addition, performance of Playlist effects is reduced when other applications are open, or if File Sharing is in use during playback.

To add a Plug-In DSP effect to a Playlist event:

1. Click on first unused DSP effect box on the playlist event. You may select DSP effect boxes on multiple events by holding down the Shift key while you select DSP effect boxes.
2. Choose a desired Premiere format plug-in from the Plug-Ins menu.
3. Configure the plug-in settings, and click OK or Process, depending on the plug-in.
4. Peak will turn on the orange LED light for each selected DSP effect box, indicating that they are enabled.


To remove a DSP effect to a playlist event:

1. Click on the DSP effect box in the playlist event that you wish to remove. You may select multiple DSP effect boxes on multiple events by holding down the shift key while you select DSP effect boxes.

2. Press the Delete key on your keyboard. Peak will turn off the LED lights for the selected DSP effect boxes indicating that they are disabled.

To change the settings of a DSP effect on a playlist event:

1. Double-click on the DSP effect box in the playlist event that you wish to re-configure.
2. Configure the plug-in settings and click OK or Process, depending on the particular plug-in.

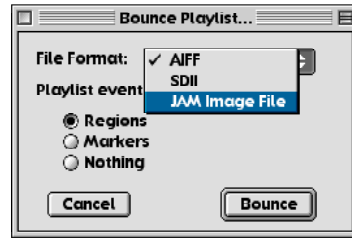
 *Plug-In DSP effects not available in Peak LE Playlists.*

Creating a New Audio Document from a Playlist

After you have created a finished Playlist, you may wish to “bounce” the Playlist (i.e., write to disk) as a new audio document, including all the Playlist’s DSP effects and crossfades. In other words, the new audio document will be the equivalent of digitally recording the output of a playlist into a new document. Additionally, Peak automatically places markers or regions into the new document that correspond to each Playlist event boundary with names that match the name of the source region.

To create a new Audio Document from the playlist:

1. Shift-click to select the playlist events you wish to turn into a new audio document, or use the Select All command from the Edit menu (⌘-A).
2. Choose New Document from Playlist under the File menu’s New submenu (Shift-⌘-B), or click the Bounce Playlist button in the Playlist window. The following dialog will appear:



The Bounce dialog

3. In the resulting dialog, select whether you want to bounce the playlist to a new AIFF file, a new Sound Designer II file, or a JAM Image file. Use the radio buttons to select whether you want Playlist Events to appear in the new document defined by Regions, Markers, or Nothing.
4. A new audio document, with DSP effects and crossfades will be generated from the selected playlist events. Peak automatically places markers into the audio document that correspond to each playlist event boundary. The markers have names that match the name of the source playlist region. For full compatibility with Adaptec’s JAM, choose “Regions.”

6

Exporting the Playlist as a Text Document

If you wish to keep a text record of your playlist, you may export the playlist into a new text document. The text document will show the playlist events, times, crossfade times, and gain levels.

To export a playlist as text:

1. Open the playlist document you wish to save as a text file.
2. Choose Export as Text from the File menu. The Save dialog appears.
3. Enter a name to save the playlist under and a location to store the file, and click Save.

Saving and Opening Playlists

To save a playlist:

1. Choose Save from the File menu. If the playlist has not yet been saved, it will prompt you to save it and name it when you close the Playlist.
2. Alternatively, you can save a copy of the playlist with the Save As... command.

To open a playlist:

- Choose Open from the File menu. Select the playlist you wish to open with the Open File... dialog. Peak will automatically open any audio documents that the playlist refers to. If the audio documents that the playlist refers to are deleted, you will be unable to use the playlist document. If Peak is unable to locate the audio document containing a referenced Region, you will be prompted to locate it.



If you remove the regions used in a playlist, you may not be able to use the playlist that refers to those regions. If you delete a file that a playlist refers to, you also will not be able to use the playlist.

Burning Audio CDs from Peak Playlists

Peak will also let you burn audio CDs directly from the Playlist using Adaptec Toast, which comes bundled with Peak. Peak Playlist Events will be written as Audio tracks on the resulting audio CD. You can also use Peak Playlists to create a Jam Image file to create DAO ("Disk-At-Once") audio CDs using Adaptec JAM (JAM sold separately). Most CD burners are supported, but check with Adaptec for any specific questions regarding compatible CD Burners.

Peak's Playlist and Toast

To burn a blue-book format, Track-at-Once, Audio CD directly from Peak's Playlist, select the Playlist Events you want to burn to CD as Tracks, or simply select All from the Edit menu (⌘-A) if you want to all of the Playlist Events to appear as tracks on the audio CD. Then, click the Burn Audio CD button at the top of the Playlist window and Peak will write an Apple Script that will launch your Playlist in Toast and begin to burn an audio CD. Please note that the gap time between tracks is not script-able with Toast, so your audio CD will have the default two second gap time between tracks. However, you can press cancel when Toast prompts you to begin burning the CD and then manually set the gap times for each CD track manually in Toast.

Regions and the JAM Image file format

A JAM Image file represents an entire CD to the CD-writing software JAM from Adaptec. When you create a JAM image with Peak, JAM will interpret the Regions and Playlist Events created in Peak as CD tracks. Any audio between one region's end and the next region's start will be interpreted as gap times. Finally, any markers you create in a JAM image file will become indexes in JAM. You can assign Peak as the external waveform editor in JAM's preferences to edit JAM playlists using Peak. You can also open JAM Image file created by Peak back into Peak for further editing as needed. By using these features, assembling and editing a CD in Peak prior to burning with JAM is a snap.



Be sure that you have Adaptec Toast installed, and that you have a working CD burner attached to the SCSI chain of your computer. Consult the documentation that came with your CD burner.

To burn an audio CD from a Peak Playlist:

1. Create a Playlist with the tracks as you want them to appear on the CD.
2. In Peak, click on the Burn Audio CD button in the Playlist window.

3. Peak will bounce the playlist with your effects and launch Toast. If Toast is not found, Peak will prompt you to find Toast.
4. Once Toast has been informed by Peak about the CD tracks to burn, a dialog appears instructing you to insert a blank CD into your CD Burner.
5. Insert a blank CD and click OK. Toast will burn your Peak Playlist as an audio CD.



Playlists burned from Peak using Toast should not use crossfades between playlist events since Toast burns audio CD tracks one-at-a-time with a predefined gap between tracks. If you need seamless transitions between tracks, use the instructions below for burning playlists with JAM.

To burn an audio CD from a JAM Image File:

1. Create a Playlist with each track as you want them to appear on the CD.
2. Use the Select All command from the Edit menu (⌘-A) or Toolbar.
3. Choose New Document from Playlist under the File menu's New submenu, or click the Bounce Playlist button in the Playlist window. The Bounce Playlist dialog will appear.
4. In the pop-up at the top of the Bounce Playlist dialog, select Jam Image. Use the radio buttons to select Playlist events to appear in the new document as Regions.
5. A new audio document, with DSP effects and crossfades will be generated from the selected playlist events. Peak automatically places regions into the audio document that correspond to each playlist event boundary. The regions have names that match the name of the source playlist region.
6. Close the new audio document (a JAM Image file format) and open it with JAM to burn a red-book format, Disk-at-Once, audio CD.

Conclusion

You have now learned about creating Regions and Playlists, as well as how to create new mixes, splice together multiple takes, bounce Playlists as new audio documents, and how to create audio CDs using Playlists. In the next chapter, you will learn about the native DSP (digital signal processing) functions in Peak.
