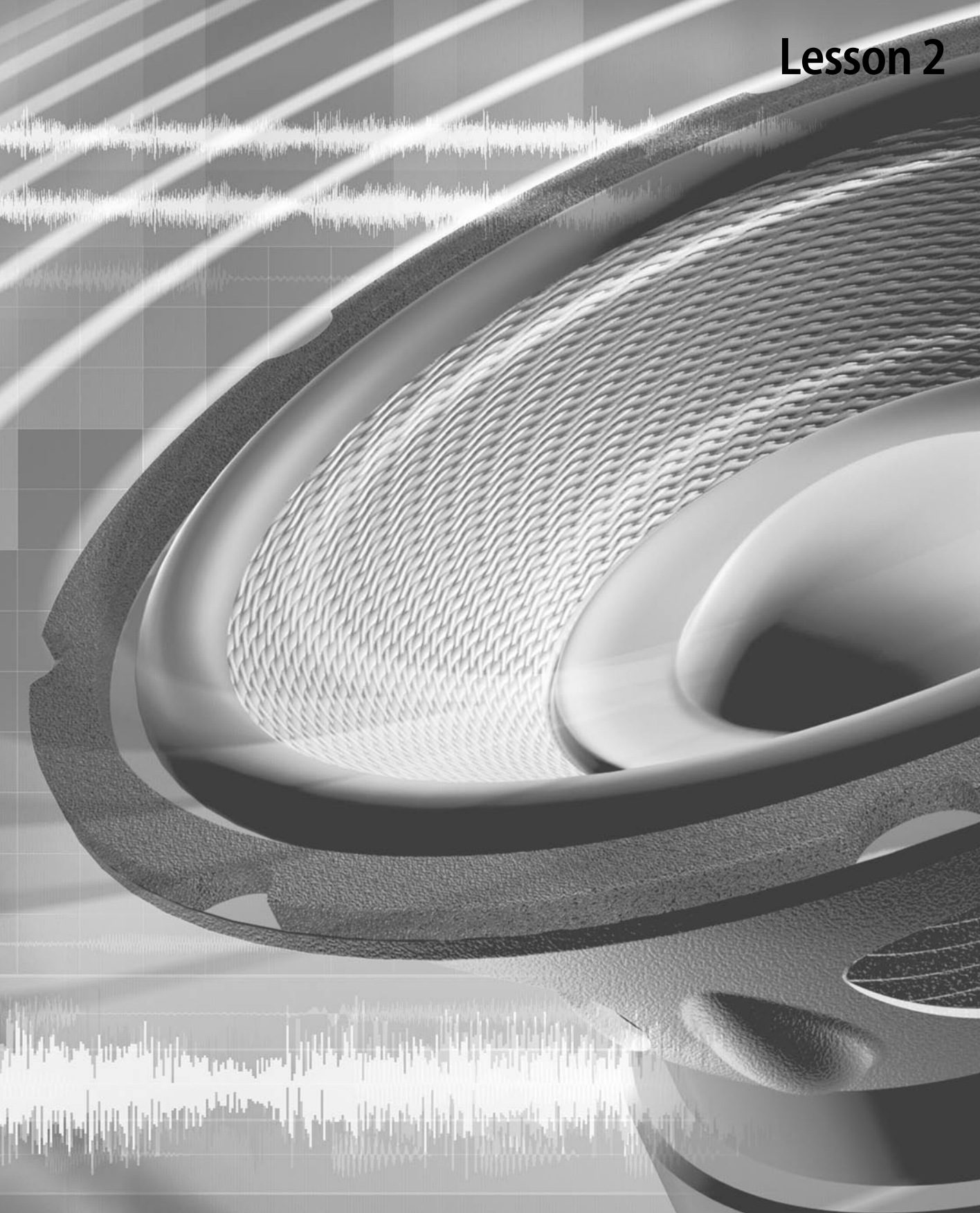
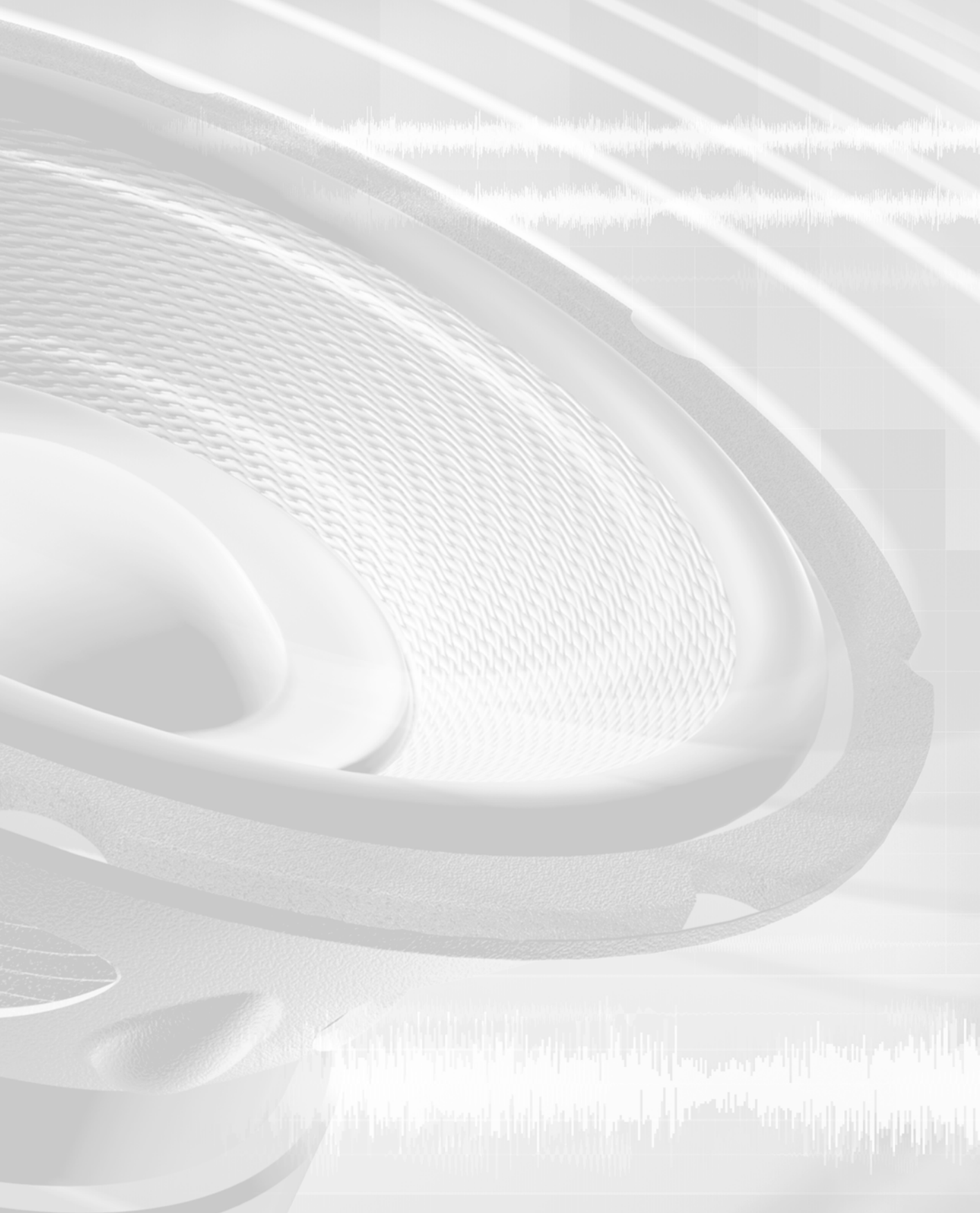
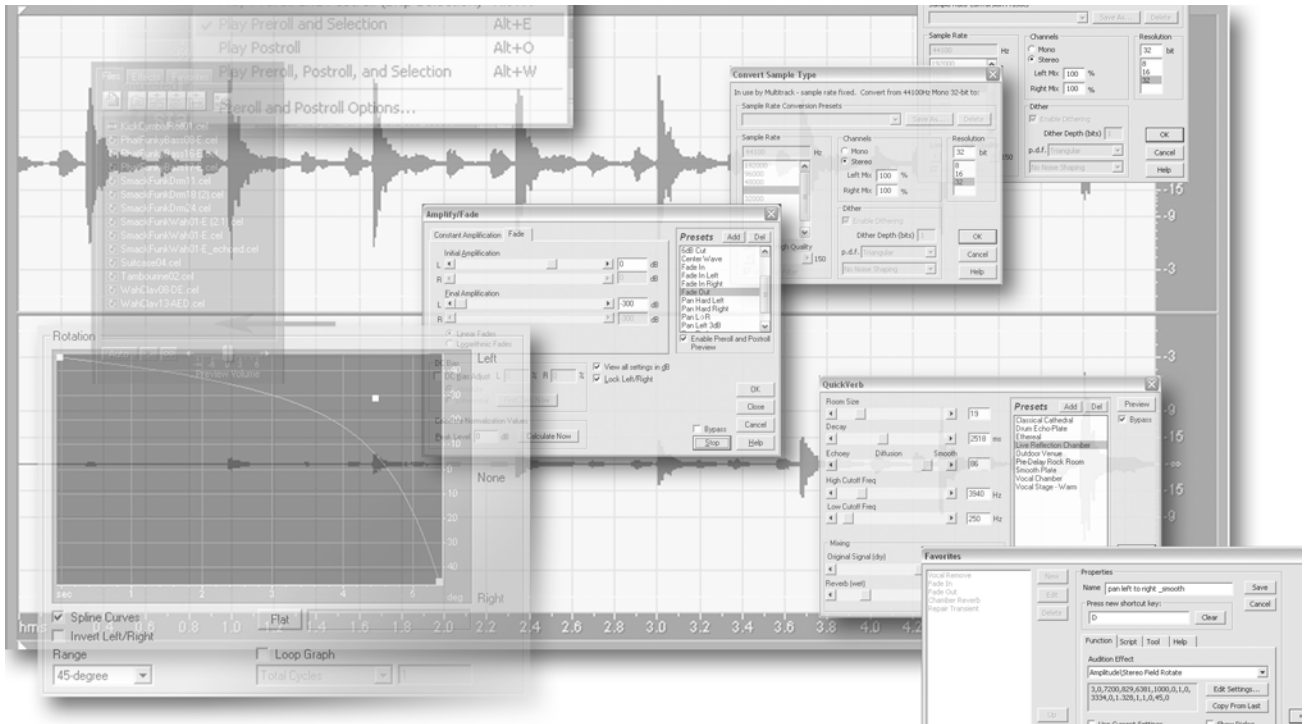


Lesson 2





2 Audition Basics



Audition's editing tools allow you to quickly and easily manipulate audio clips. You can select portions of audio clips for editing, and preview files before placing them into a session. Take advantage of Audition's customizable working environment and use three separate views to efficiently navigate through sessions and files.

In this lesson, you'll learn how to do the following:

- Use the Multitrack and Edit Views.
- Work with the Selection/View controls.
- Learn to use the Transport controls.
- Learn to use the Zoom controls.
- Use Windows in Audition.

Getting started

Adobe Audition displays your work using three views: the Multitrack View, the Edit View, and the CD Project View. This lesson is focused on the common features among the three views. Each view is also discussed specifically in Lessons 3, 4 and 12. When you open Audition sessions, the Multitrack View is displayed. Adobe Audition sessions are project files which, in turn, point to sound or music files.

- 1 Start Adobe Audition, and select the Multitrack View tab.

Note: If you have not already copied the resource files for this lesson onto your hard disk from the AA_02 folder from the Adobe Audition 1.5 Classroom in a Book CD, do so now. See “Copying the Classroom in a Book files” on page 2.

- 2 To review the finished session file, choose File > Open Session. Navigate to the AA_CIB folder you copied to your hard disk, and open the file “02_end.ses” in the AA_02 folder. Click the Play from Cursor to End of File button (⏮) in the Transport Controls. The completed file is played for you.

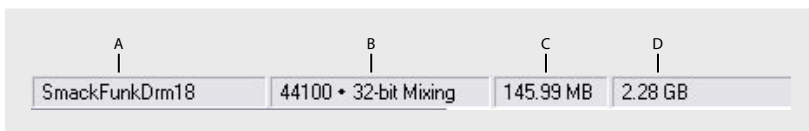


The Play to End button on the Transport Controls.

- 3 Close the 02_end.ses file by choosing File > Close Session and Its Media.
- 4 Choose File > Open Session, and open the 02_start.ses file in the AA_02 folder, which is located in the AA_CIB folder on your hard disk.

When you open an existing session in Audition, the program will take a few moments to load the existing sound files into the session window. At the bottom of the application window is a status bar, displaying useful information about the session.

Place your cursor over the various clips in the multitrack session. The names of the loops used in the session are displayed in the status bar. The sample rate is 44,100 Hz, which is Audition's default sample rate, as well the sample rate for compact discs, and the size of the complete file is approximately 145 megabytes. The last number displays the amount of free space available for storage in your hard drive. While this is the default layout for the status bar, right-clicking on status bar lets you add or remove information about the session, therefore your status bar can look different.



A. Clip name. B. Sample rate. C. Size of file. D. Free space on your hard drive.

Audition session files

It is important to remember that Adobe Audition's session files, which are identified by their .ses file extension, contain no audio data. Each session file points to other audio files on your computer or network. The Audition session file keeps track of where the audio files are stored on your computer, each file's duration and location within the session, along with the envelopes and effects that are applied to the tracks.

A session file is dependent upon the audio files to which it points, so it's important to keep your files organized. As you are getting started with Audition, it is a good idea to keep all files related to a session in the same folder. Adobe Audition provides an option to save a copy of all files used in a session, including the session file, into the same folder.

About sample rates


During the sampling process, an incoming analog signal is sampled at discrete time intervals. Each interval of analog signal is momentarily observed, and thus, each represents a specific, measurable voltage level. A mathematical conversion generates a digital series of numbers that represent the signal level at that particular point in time. The generated data can be digitally stored or processed.

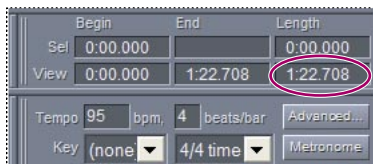
The **sample rate** is the number of samples (or snapshots) that are taken of an audio signal per second. For example, a sample rate of 44,100 Hz means that 44,100 samples are taken per second. Since sampling is tied directly to the component of time, a system's sample rate determines a system's overall bandwidth—in other words, how many frequencies can be encoded within the audio signal. Higher sample rates generally yield a better quality waveform.

The most common sample rates for digital audio editing are as follows:

- 11,025 Hz—Poor AM Radio Quality/Speech (low-end multimedia)
- 22,050 Hz—Near FM Radio Quality (high-end multimedia)
- 32,000 Hz—Better than FM Radio Quality (standard broadcast rate)
- 44,100 Hz—CD Quality
- 48,000 Hz—DAT Quality
- 96,000 Hz—DVD Quality

—From Adobe Audition Help

5 To view the entire session from beginning to end, click the Zoom Out Full Both Axis tool () located in the Zoom controls, along the bottom of the window. This is a convenient way to view all the tracks in your session. If your Selection/View Controls window is not currently open, choose Window > Selection/View Controls. This window displays the entire length of your current view and the view should read approximately 1:22:708.



6 Choose View > Display Time Format > Bars and Beats. The units in the timeline ruler at the bottom of the screen are now bars and beats as are the units in the selection/view controls. The length of your session in bars and beats should be 32:2.15. Audition

can be used for a different types of projects. Different projects require different time displays. This session opened with a time display of hours, minutes, seconds, and milliseconds and you changed it to bars and beats. Working with loops is often easier with a time display of Bars and Beats.





7 Choose the Move/Copy Clip tool (↵) and click the last clip in Track 1, which is the drum track. Drag the clip to the right to move it, then choose Ctrl+Z to undo the move thereby returning the clip to its original position. This tool allows you to change the location of clips in a session. If an alert message appears informing you of new tools, click OK to close the window.

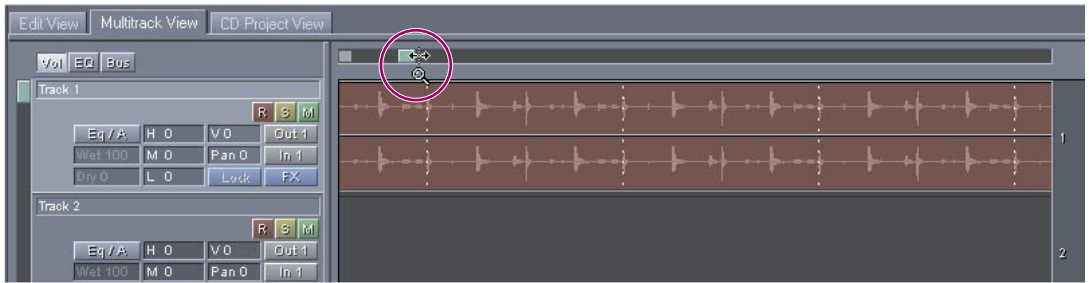
Note: There are three tools in Audition for moving and selecting clips. The Move/Copy Clip tool (↵), the Time Selection tool (⌘), and the Hybrid tool (⌘↵).




8 Click the Time Selection tool (⌘) and place your cursor approximately halfway into the SmackFunkDrm18 clip, which is the first clip located in the first track. Click and drag to the left, selecting the first half of the clip. Notice the selection covers all 5 tracks of the session, not just the first track. Adobe Audition's Multitrack View allows you to add audio files to different tracks of a session in order to create a multi-layered sound composition. For example, while playing a session, you can adjust the volume of any track in real time. Final sessions are then mixed down for use in a CD or as a sound file such as a WAV or mp3. In Lesson 4 you will be exploring the mixing capabilities in the Multitrack View.



Note: The Hybrid tool combines the functionality of both the Move/Copy Clip tool and the Time Selection tool. When using this tool, the left-click on a two-button mouse functions as the Time Selection tool, while the right-click functions as the Move/Copy Clip tool.

- 9 Click the Zoom to Selection tool () . Click the Play button () and only the view within the display window is played. When the playback cursor reaches the end of the display window, it stops. Use this method to preview certain sections of your tracks.
- 10 Click the Play from Cursor to End of File button () and the entire session plays. When the playback cursor reaches the end of the display window, it will continue playing until it reaches the end of the session.
- 11 Click the Stop button at any point.
- 12 Place your cursor over the green horizontal scroll bar, directly above track 1. You will see the Hand icon () appear, click and drag to the right or left, scrolling through the session.
- 13 Place your cursor on the right edge of the green horizontal scroll bar. The cursor changes to a magnifying glass with arrows. Click and drag to the right to zoom out horizontally. Click and drag to the left to zoom in horizontally. Do this three times to get a sense of how this tool works.



- 14 Click the Zoom Out Vertically button () to expand the view and see all the tracks in the session. While Audition can use up to 128 audio tracks per session, the number of concurrently visible tracks is dependent upon the display resolution of your monitor. Being able to change your view allows you to see more tracks or to focus on a portion of a specific track. Click the Zoom Out Full Both Axis button () to restore the initial view.
- 15 Click to select the Hybrid tool () . Left-click at the start of the multitrack session and drag to the right, selecting the first eight bars of the session. Press the Play button to play these eight bars.

16 Click the right range marker, which is the yellow button at the top and bottom of the selection range, and drag it to 11 bars 1 beat. Then click and drag the left range marker, which is also yellow, to the 7 bars 1 beat position. All 4 bars in this region are selected. Press the play button to play the selection.

If necessary, use the Selection/View controls, located in the bottom right corner of the window, to help you make the selection. These were discussed in step 5 of this exercise.


You can expand or reduce the range of your selection by moving either of the yellow range markers to the left or the right.


Using the Organizer Window

The loops used in the current session are listed in the Organizer window. By default, Audition lists the current samples in the order in which they were imported or accessed, with the most recently imported file at the top.

1 Change your sort order from Recent Access to Filename by clicking on the Sort By: menu at the bottom of the Organizer window. This places your files in alphabetical order.



Note: If you do not see the Advanced Organizer window options, press the Advanced Options button () in the upper right of the Organizer window.

2 The first two files are Kick&Sizzle.cel and KickCymbalRoll01.cel. Notice the Audio icon () next to the file names. This marks files as Audio file types.

3 If not already selected, select the Play Looped button (∞) at the bottom of the Organizer Window and then select the PhatFunkyBass08-E.cel loop by clicking on it once, then press the Play button (▶) at the bottom of the Organizer window. The sound loops continuously from beginning to end until you press the Stop button (■). Notice that these buttons are in the Organizer window, not the Transport Controls.

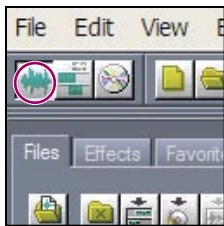
Note: If you accidentally double-click on the files in the Organizer window, they open in the Edit View for editing. Return to the Multitrack View by clicking the Multitrack tab across the top of the window or choose View > Multitrack.

4 Click the AutoPlay button (Auto) at the bottom of the Organizer window, and then click on each file to automatically play it. You do not have to wait for a file to end before previewing the next file. Use the Down Arrow key on your keyboard to navigate through your list of files one at a time. You can also adjust the Preview Volume slider to raise or lower the volume of the files. Press the Stop button when you are done previewing the files.

Working with toolbars and windows

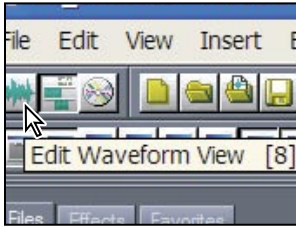
Much of your work in Audition will involve switching between the Edit View and the Multitrack View.


1 Click on the Edit Waveform View button (📊) in the View Toggle toolbar.



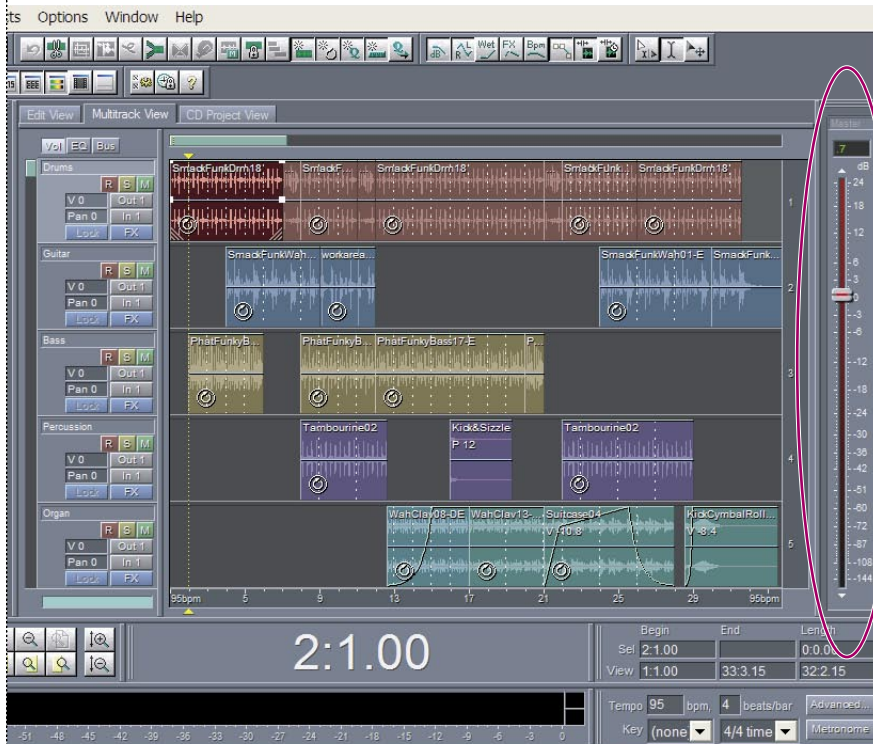
Your workspace changes from the Multitrack View to the Edit View. The Edit View is used to modify a single audio waveform, examples might include adding an effect or deleting part of a clip. Changes made to files in the Edit View are destructive: adding an effect or trimming a loop will change the original file once it is saved. Edits made in the Multitrack View are non-destructive, meaning the original file remains untouched.

9 Place your cursor over the first button in the toolbar. A Tool tip appears describing the function of the button. Tool tips also display the keyboard shortcut in brackets.



10 Click the Hide/Show Mixer button () in the toolbar to display the Mixers window. You will use the Mixers window to control the master volume of the entire session. The Mixers window also provides controls for each track.

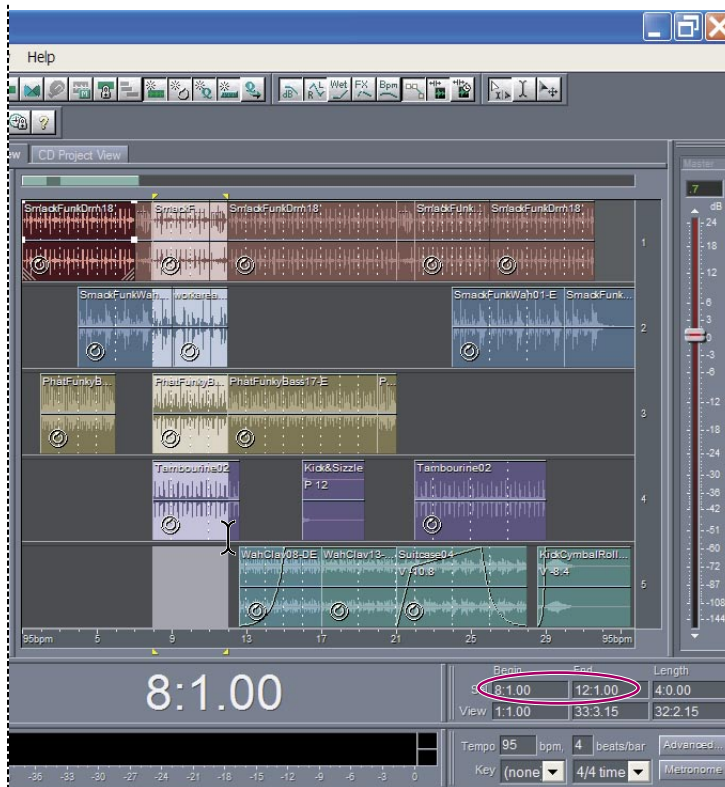
11 Click the Mixers window along the top of the title bar. Drag the window to the right side of the main window. While dragging the window, move your cursor to the right edge of the window. When the right edge of the window becomes highlighted, release the mouse. The mixer window attaches to the main window.




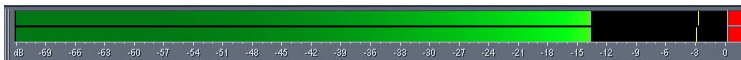
Placing individual windows into areas of the main interface is referred to as docking. Docking the mixer window allows you to control the volume of your multitrack session in real time. In general, docking windows is preferable to displaying a window which may interfere with the view of your tracks and track controls.

12 Place your cursor over the vertical double bars on the left side of the Zoom Controls until the cursor changes (☒). Click and drag the window up to remove it from the dock. Practice docking windows by dragging the Zoom Controls window back to its original location. You can dock or float most of Audition's windows, which is especially useful if you work with multiple monitors attached to your computer.

13 Using the Hybrid tool (☒) in the upper right of the toolbar, click and drag in Track 5, making a selection starting at 8 bars 1 beat and ending at the 12 bars 1 beat mark. You may have to adjust the range boundaries, represented by the yellow triangles at the corner of the selected area, to make the selection. Use your Selection/View window in the bottom right corner to confirm the length of the selection. You should have a total selection of 4 bars.



14 Click the Play Looped button () in the Transform controls. This loops the selection continuously, until you click the Stop button. Playing a looped selection is a useful way to preview changes to your session in real time. As the session is playing, move the slider in the mixer window toward the top to increase the overall volume and toward the bottom to decrease it. Keep an eye on your Level Meter window at the bottom and notice how it changes as you move the slider. Press the spacebar to stop playing the session.



15 In the number field at the top of the Mixer window, which you docked earlier in this exercise, highlight the current value and enter **0**. The levels return to their default value of zero.

Level Meters

The Level Meters represent the incoming signal in dBFS (decibels below full scale), where a level of 0 dB is the maximum amplitude possible before clipping (also known as distortion) occurs. Yellow peak indicators remain for 1.5 seconds to allow for reading of the peak amplitude. If clipping does occur, the clip indicator to the right of the meter lights up and stays on until you clear it. When stereo audio is displayed, the top meter represents the left channel, and the bottom represents the right.


You can customize the Level Meters in a variety of ways, such as changing the decibel range, showing valley (minimum amplitude) indicators, and changing the mode of the peak indicators.

—From Adobe Audition Help

Note: As you begin to add more tracks to a session, you will generally need to lower your master mixer volume to prevent clipping. If your clip indicators are red, click on them to clear them.

Customizing the Multitrack View

Audition is capable of handling up to 128 audio tracks per session. There are five tracks of sound loops in this session.

1 To make sure you are seeing all the tracks in your session, click the Zoom Out Full Both Axis tool ()

2 In the track controls for Track 1, click once on the name Track 1 and enter **Drums** in the name text box. In the track controls for track 2, enter **Guitar** in the name text box. Repeat these steps for tracks 3, 4 and 5, entering **Bass**, **Percussion** and **Organ** respectively. It is useful to rename your tracks based on their content.



3 Change the color of the first “SmackFunkDRm18” clip in the drum track by right-clicking it and choosing Clip Color from the context menu. In the Clip Color window, choose the first red shade in the upper left and click OK. Modifying the color of individual sound clips in Audition is useful for visually identifying different instruments or loops. We have color-coded the session for you but have left the first clip as the default green.

4 Choose File > Save Session to update the 02.start.ses file.


5 Choose File > Close All.

Review questions

- 1 What is the difference between the Edit View and Multitrack View?
- 2 What is the quickest way to view all the tracks from beginning to end in your Multitrack View?
- 3 Where are the Move/Copy Clip tool, the Time Selection tool, and the Hybrid tool located, and how are these tools different?

Review answers

1 Edit View uses a destructive method, which permanently alters a sound wave when the file is saved. Permanent changes are preferable when converting sample rate and bit depth, mastering, or batch processing. Multitrack View uses a nondestructive method, which is not permanent, but requires more processing power. The flexibility of the Multitrack View is preferable when working with multi-layered musical compositions or video soundtracks.

- 2 The Zoom Out Full Both Axis tool () automatically scales your timeline to show every track in your session, as well as the entire clip within each track.
- 3 The Move/Copy Clip tool, the Time Selection tool and the Hybrid tool are all located in the Multitrack Tools toolbar and can be accessed by View > Toolbars > Multitrack Tools. Left-clicking with the Move/Copy Clip tool moves a clip from one area of the multitrack to another, Right-clicking reveals a menu allowing you to create a copy of the clip. Left-clicking with the Time Selection tool selects a portion or all of a waveform, right-clicking does nothing. Left-clicking with the Hybrid tool makes a selection for editing, while right-clicking moves a clip from one area of the multitrack to another.

On your own

- 1 Become more familiar with Audition's extended right-click functionality. Right-click on a clip and access the Adjust Audio Clip Volume window from the context menu. Right-click on an empty portion of a track and choose Track Volume. Right-click on the track and experiment with using the Mute and Solo commands from the context menu, rather than the multitrack controls.
- 2 Grab the Mixer window, which you docked in step 11 in the Working with Toolbars and Windows section. (If the Mixer window is not currently open, choose Window > Mixer.) Practice docking the Mixer window into different sections of the interface.
- 3 Use the Time Selection tool to make a selection in your multitrack session. Use the Zoom to Selection tool, the Zoom In to Left Edge of Selection tool and the Zoom In to Right Edge of Selection tool to view the results of each tool.
- 4 Audition also makes use of a mouse with a scroll wheel. Try the following: Place your cursor over the Horizontal Portion bar and scroll down to zoom out. Place your cursor over the time display and scroll up to zoom in. Place your cursor over a track name and scroll up and down to zoom out vertically.