

CSU DVComm
MANUAL

for

COOL EDIT
2000

SINGLE WAVEFORM MODE

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SINGLE WAVEFORM MODE

Single Waveform Interface:

1. This is the first screen that will come up in Cool Edit. (Figure 1).
This is the Single Waveform Mode, where you will record, save, edit and modify your audio files.

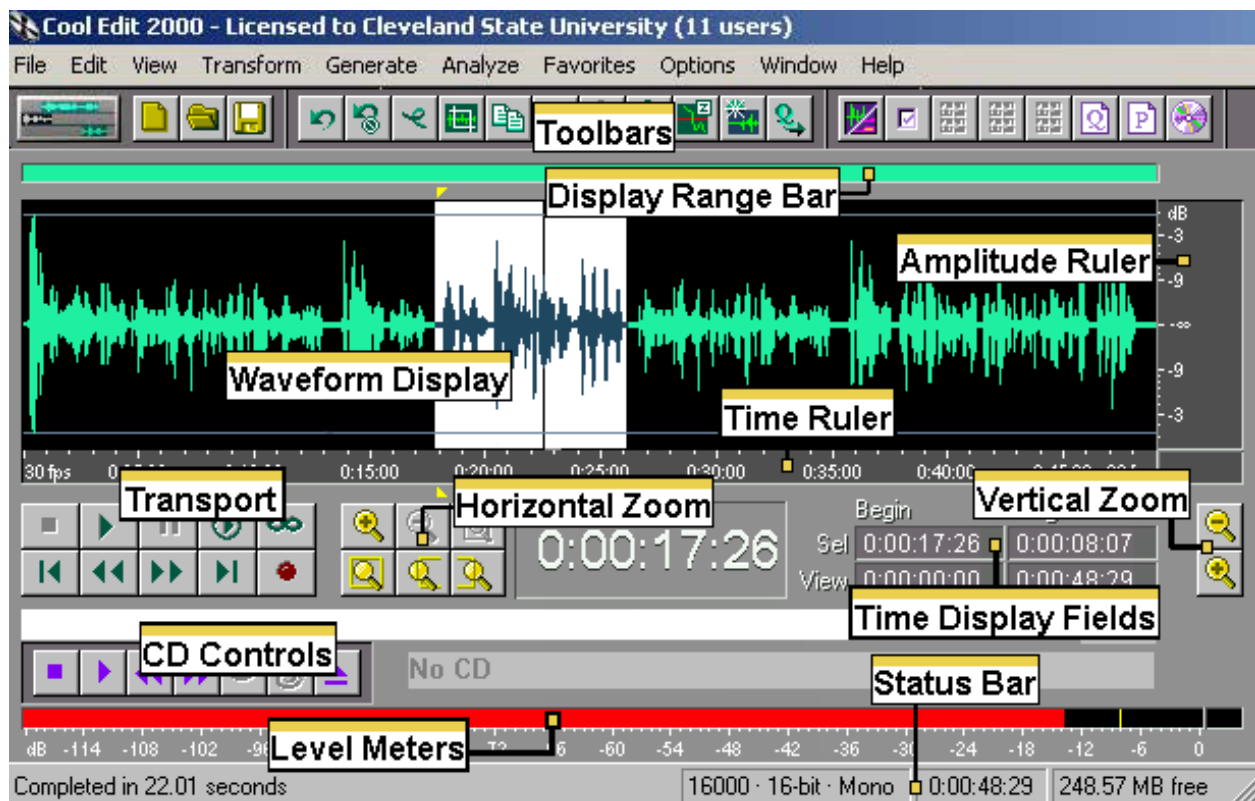


Figure 1

2. You should become familiar with the menu selections at the top. The **File** menu will allow you to create new files, open existing ones or save open files. The **Edit** menu in turn allows you to cut, copy, and paste parts of the sound file and also to “undo” recent changes. The **View** menu allows you to change what is displayed on the screen and how it is displayed. The **Transform** menu allows you to modify the audio file loaded in the application. The **Generate** menu lets you create tones, noise and silence. The **Analyze** menu allows you to examine various statistics of the open file. The **Favorites** menu

4. The lowermost panel on the lower left controls the CD in the CD ROM drive (Figure 4). To make these



Figure 4

buttons visible, click on the CD icon or select “Show CD Player” from the View menu. In addition to showing the total playing time of the CD, it also will give you the number of tracks as well as the playing time of each individual track. These controls allow you to start and stop the CD or mark locations in the sound file and then advance to the marks after they are inserted in the file.

5. Right below this panel are the Level Meters, allowing you to monitor your record and playback levels (Figure 5). It is important for these



Figure 5

levels to be correct. **In the audio bays**, audio comes into the computer is via the Line Inputs. They must be selected to bring audio into Cool Edit. While monitoring the Cool Edit Record Level,

(Options, Monitor Record Level or *F10*) view the Windows Mixer control panel (Options, Windows Mixer). Click Mute for the Line In Volume (Figure 6). In the Window Mixer Volume Control

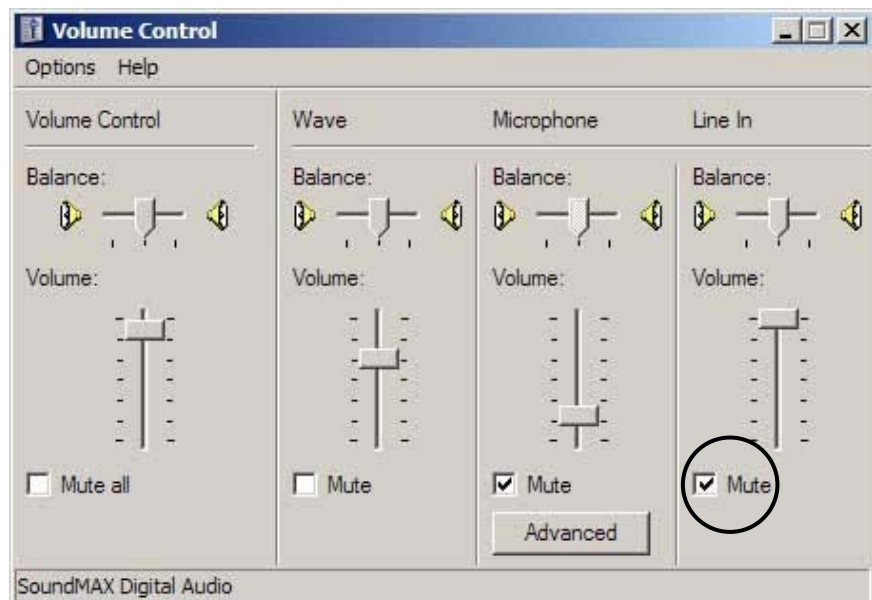


Figure 6

window, select Options, Properties and Recording. In the Recording Control window, (Figure 7) Select Line In and adjust the volume control to peak the Cool Edit meters at approximately -18 when the VU meters on the mixer reads "0" VU.

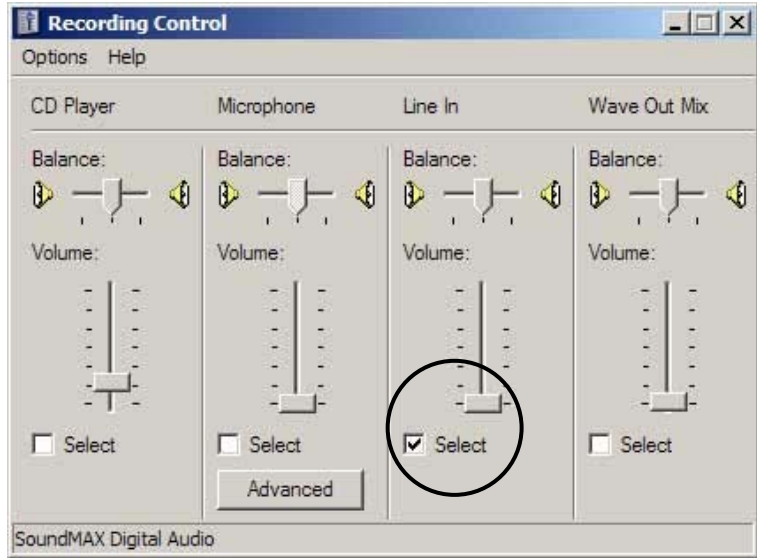


Figure 7

Normally, this is all the way down. Setting this control too high will cause Cool Edit to distort (same as going into the red on the VU meter).

6. Surrounding the waveform display are the Time (on the bottom) and Amplitude (on the right) Rulers (Figure 8). With the zoom controls on the bottom left panel you can zoom in horizontally (magnifying time), zoom out full, see only your selection, your selection's head or tail. Zoom controls on the lower right zoom vertically (magnifying amplitude) on your waveform.

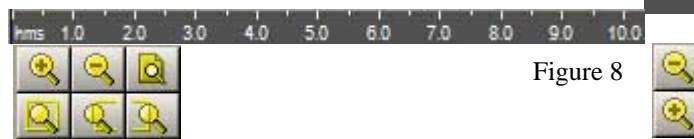


Figure 8

7. Below and to the right of your waveform display are the Time Display Fields (Figure 9). These fields are helpful when you are selecting and/or splicing audio. The "Sel" field will show the time at which your selection begins, ends, and the total time. The "View" field will show the beginning and the ending as well as the total time when you have only a part of the waveform in the waveform display.

	Begin	End	Length
Sel	0:07.410	0:11.964	0:04.554
View	0:00.000	0:38.714	0:38.714

Figure 9

Recording a New File:

1. First you will select New from the **File** menu.
2. When the New Waveform dialog box appears you will select your sample rate, channels, and the bit resolution. The settings you see in Figure 10 (*44,100, Stereo, 16 bit*) are required for an audio CD. Audio files prepared for digital video editing should be sampled at 48,000, stereo or mono and 16 bit.

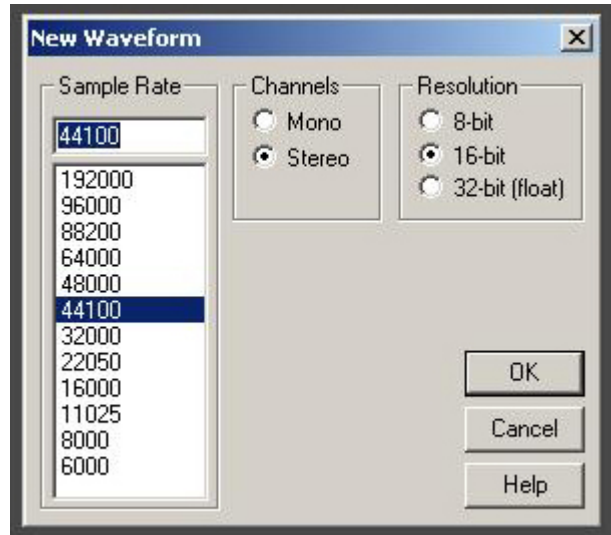


Figure 10

3. Begin by setting up your source materials (load prerecorded media into players, position microphone etc.) and configure the audio mixer by activating the proper channels and setting levels.
4. When you are satisfied everything is properly set up, click the Record button (Red Dot). The time counter will start running.



5. Start the audio you want to record
6. When you have finished your recording...click Stop (Green Square).
7. Click **File** and Save your audio as a Windows PCM (*.wav) file in the proper directory.

Open an Existing File for Editing:

1. Click on **File** and select **Open**.
2. Navigate to the proper directory and choose your file (Figure 11).
3. Click on **Open** and the selected audio file will be displayed in the waveform display.

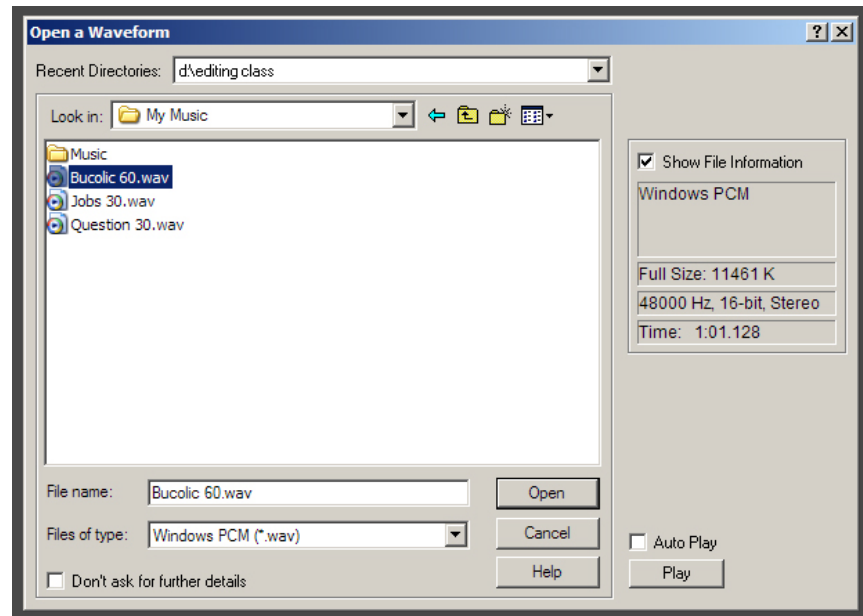


Figure 11

4. To select a portion of the waveform place the cursor at the point on your waveform where you want to begin, left-click and then drag to the right to highlight your selection.
5. Holding down the right mouse button, you can drag either side of your selection to extend or reduce it.
6. To adjust the beginning of your selection by $1/30^{\text{th}}$ of a second in either direction, use either the right or left keyboard arrow keys.



Figure 12

7. Another way to make a selection is to double click on the Sel Time Display Field and enter the values for time.

	Begin	End	Length
Se	0:07.410	0:11.964	0:04.554
View	0:00.000	0:38.714	0:38.714

8. To visually fine-tune your selection, magnify the waveform display by using the Zoom tools. This will give you greater control over what specific audio you want to select.



9. You can use either the **Edit** menu, the Toolbar or the keyboard to cut, copy and/or paste your selections. When you want to cut out a part of your audio you first select it by placing the cursor where you want to start and then click and drag over the area to be cut. Then click the keyboard Delete key to erase it. (Remember-the selected portion turns white so you can see exactly how much will be cut out. See Figure 12.)

10. Just as you can define a Selection and delete it, you can also cut a Selection (**Edit**, Cut), and paste it in a new position in the waveform. (Click at the insertion point, **Edit**, Paste; see Figure 13)

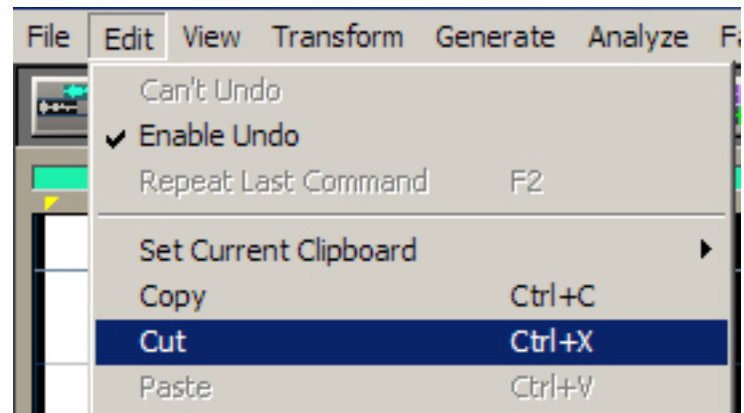


Figure 13

11. You can also delete or insert silence in to your audio. To automatically delete silence, go to **Edit**, Delete Silence...this will define silence thresholds. Click OK to delete. To Add Silence, select an insertion point and go to **Generate**, Silence. Set the length of silence you want to insert. (This will increase your total time). If you

want to convert a part of your audio to silence, select the part you want to silence and click **Transform**, Silence.

12. You also have the ability to add special effects (change Amplitude, apply Delay Effects, Noise Reduction, and equalization Filters) by using the **Transform** menu. (Transforms are only available in the Single Waveform Mode.)

13. Cool Edit has an Undo feature which must be enabled before it can be used. (Figure 14) The system keeps a minimum of 5 levels of undo while you are editing. To undo an edit simply go back to the **Edit** menu and select Undo. Your edits are only finalized when you save and close the file.

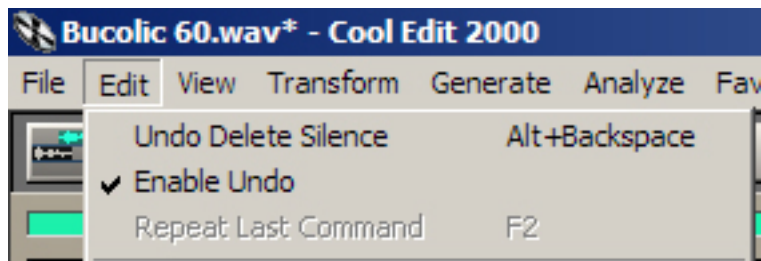


Figure 14

14. SAVE your work often!

15. Upon completion of your edit you may want to use the Normalize function. Normalize amplifies the highlighted selection of your waveform to within a specified percentage of the maximum level. Use Normalization to achieve the greatest amount of amplification that will not result in clipping (when set to 0dB or 100%). Click on **Edit** and Select Entire Wave. Next, click on **Transform**, Amplitude, Normalize and modify or accept the defaults.

Preparing a File for Export:

1. Chose the proper file format for your purpose. Audio to be burned to an audio CD or to a CD-ROM for video editing, should be saved as Windows PCM (*.wav). For use by an MP3 player or on a website, select **File, Save As... MPEG3 (FhG) (*.mp3)**.

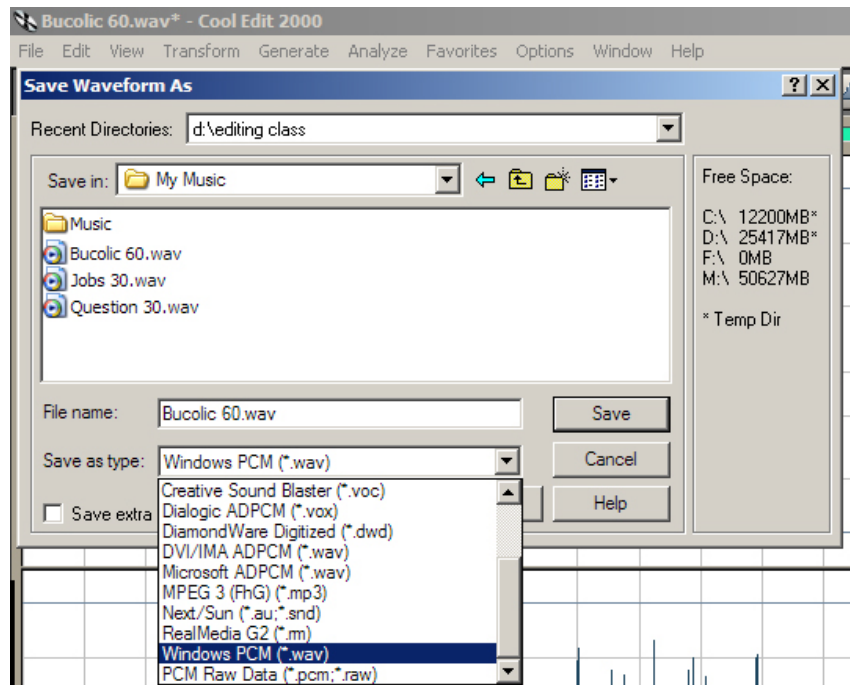


Figure 15

2. You *cannot* burn your audio to an audio CD or CD-ROM in Cool Edit. That process requires a different software application (Roxio Easy CD on the desktop).

Studio Plug-In

The Multitrack Interface:

1. The Studio Plug-In allows up to four audio files to be placed on a timeline, played simultaneously and mixed together into one audio file. Enter the Studio Plug-In by clicking the icon below **File** and **Edit** in the Single Waveform mode. Click again to return. Each audio file can be faded up or down and panned left or right at Control Points placed anywhere within the timeline. The Transport Controls, Rulers and Time Display areas are identical to the Single Waveform mode. This is the Studio Plug-In interface. (Figure 16)

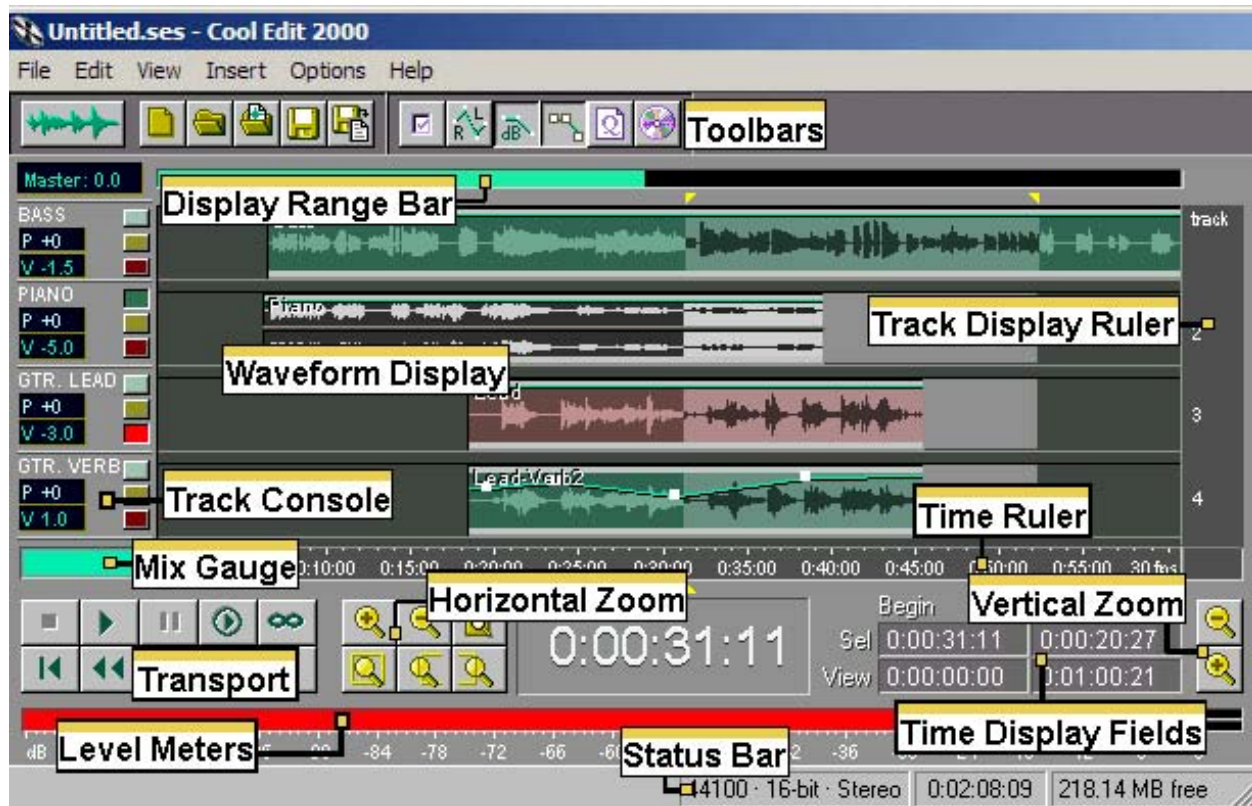


Figure 16

2. There are fewer menu selections at the top of the Studio Plug-In interface because most operations are performed on the individual audio files in the Single Waveform mode. The Studio Plug-In deals with mixing sessions, which are then saved with the audio files.

3. Audio files are placed in one of the four tracks by first clicking in the destination track, then clicking **Insert** and selecting them directly, if they are currently open in the Single Waveform mode, or by clicking **Wave from File...** and selecting from the **Open a Waveform** dialog box.

Manipulating Files on a Track:

1. Each track has its own Track Console, which sets the entire track's **Pan** and **Volume**, as well as whether the track is **muted**, **Soloed**, or enabled for **recording**. (Figure 17)

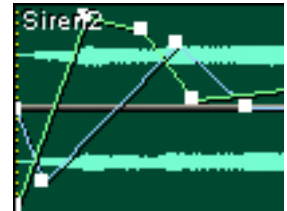


Figure 17

2. Selected files are moved on the timeline by Right-Click-and-Dragging with the mouse. The file on Track 2 in Figure 17 is currently selected. Right-Clicking a file also opens a menu offering many manipulation operations including **SPLICE**, which cuts a waveform in two at the cursor. Left-Clicking a file opens it in the Single Waveform mode. Any changes then made in the Single Waveform mode, like adding reverb, adjusting EQ or changing level, will appear in the Multitrack mode when you switch back.

3. The green line over the top of the waveform forms an envelope used to control the volume of the waveform. (Figure 18) Click on the line to create a control point; drag the Control Point up or down to change volume and left or right to move it in time. When the envelope is at the top of the waveform, the audio is at full volume. At the bottom, it is at zero volume.

Figure 18



4. The blue line over the center of the waveform forms an envelope controlling the waveform's pan position, where the top of the block is pan left, and the bottom is pan right. Click to create a control point and drag the point up or down to change the pan setting.

5. Save your session often.

Mixing Down the Session:

1. After a session is completed and saved, a Mix Down is performed, creating a new composite audio file based on the session. Click **Edit, Mix Down, All Waves**. The new mix down wave opens in the Single Waveform mode of Cool Edit for review and saving.

2. Special care and attention should be given to over-levels

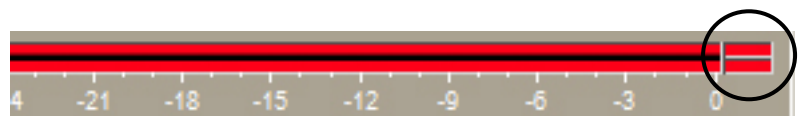


Figure 19

developed during the mix down. Adding multiple waves at high levels can cause the mix down to exceed 0dbFS and produce distortion. If this should occur, return to the Studio Plug-In session and adjust the volume levels at the points where the level meters peak and the over level lights flash on (Figure 19) or reduce the total track level using the **V** setting in the Track Console.

Animated Tutorial List:

In addition to the extensive Help system available in Cool Edit, the program has animated tutorials which take you step-by-step through various processes. These tutorials are strongly recommended:

Overview of Cool Edit 2000 – basics of the Single Waveform mode

Overview of Studio Plug-In – basics of the Multitrack mode

Preparing Audio for CD –
steps before making an
audio CD

Using Crossfades –
automating fades and
crossfades in the
Multitrack mode

Interface Tips and Tricks –
useful information to
speed your editing and
mixing

