Undoing Editing Mistakes

If you decide that you are not happy with the changes, you can undo them with the ***Set Selection*** button. You must use this before clicking on ***Modify***. Clicking on ***Set Selection*** causes all three settings (duration, label, and volume) to revert to their original values. After you click on ***Modify***, the original settings are lost.

Note – When you highlight an edit on the edit list, the associated section of the waveform is highlighted on the control panel. This may not be apparent if that portion of the waveform is off-screen. You may have to scroll or skip through the file to find the highlighted portion.

Adding Edits to the Edit List

As Figure 5-46 shows, the last step needed to add an entry to the edit list is to click on the ***Add*** button. When you have a recording saved and named, follow the steps shown in that Figure.

Finishing Up

After recording and editing your sound files and creating your edit lists, you are ready to use the edits on a TimeLine. *Chapter 7, Building Multimedia Documents (TimeLine Editor)*, for more information on TimeLine.

Changing the Duration

You can change the length of time the edit plays. This does not affect the speed at which the sound plays, but rather uses more or less of the recording. To change the duration, follow these steps:

1. Highlight the waveform to include or exclude gaterial.
2. Click on ***Load Selection***. This displays information about the edit on the edit panel. It shows the new start and end times for the selection you just highlighted.
3. To register the change, click on ***Modify***.
4. Name and save your edit list using the *file browser*.

Note – When changing the content of an edit, always remember to click ***Load Selection*** before clicking on ***Modify***. If you click on ***Modify*** alone, the edit refers to its original content when it plays.

Changing the Name

To change the name of an edit, follow these steps:

1. Bring up the waveform and edit panel.
2. Type in the new name in the space next to ***Label***.
3. To register the change, click on ***Modify***.
4. Name and save your edit list using the *file browser*.

Changing the Volume

Change the volume to the new setting by following these steps:

1. Type in a new value or click on the scroll arrows to increase or decrease the value (arrow placement is shown in Figure 5-46).
2. To register the change, click on ***Modify***.
3. Name and save your edit list using the *file browser*.

Caution – Verify that the recording you have highlighted on the control panel is actually the one you want to add to the edit list. If it is not, use ***Load Selection*** to bring up the correct sound before clicking on ***Add***.

Modifying Edits

All editing is performed on the waveform of the recording. You may want to play the whole recording, or part of the recording, to see what modifications may be required (refer to the earlier section on *Playing and Searching*). To select or move to specific portions of the recording, you may want to use the zoom or compress, enlarge, scroll, or skip features. This is described in the earlier section on *Searching Through the Waveform*.

Among the things you can modify are:

- The duration of an edit
- The name or label
- The volume
- Undoing edits under certain conditions

Note – Not all the features under the ***Edit*** button are fully implemented in this release (1.0), such as cut, copy, and paste. This section explains how to work around this limitation using the edit panel. Please keep the ***Edit mode*** switch ***Off*** to avoid any problems.

Do not use the ***New*** entry on the ***Document*** menu. This feature is not needed any more and is being phased out on the next version of DTR.

To begin editing, select the edit or edit list with the *file browser*. If you have opened the edit list, it automatically opens the associated audio files. Otherwise, you need to open the edit panel and use the ***Load Selection*** button.

Figure 5-46 Using the DTR Edit Panel to Add an Edit to an Edit List

Opening the Edit Panel

While recordings are made using the control panel, editing is performed using the edit panel. Figure 5-45 shows how to open the edit panel under the control panel’s ***Options*** button.

Figure 5-45 Opening the DTR Edit Panel

Saving Recordings on an Edit List

Placing a recording on an edit list involves several simple steps shown in Figure 5-46. It shows an example of selecting a portion of a waveform, and saving it as an edit using the edit panel.

REMEMBER – You can combine edits from different audio files on the same list.

After you have stopped recording, the waveform appears on the global waveform canvas, see detail in Figure 5-44. A canvas window shows 10 seconds of sound at a time. The waveform is the primary way to locate sections of sound for playback and editing.

Figure 5-44 Recorded Sound Displayed as a Waveform

Editing Recordings and Making Edit Lists

When you have recorded or obtained prerecorded material, and have named and saved them as files, you can edit them and organize them into edit lists. An edit list can combine selections from more than one audio file. The edit list can be later incorporated into a presentation using the TimeLine editor.

This section describes how to open the edit list, how to save a recording as an edit in an edit list, and how to modify the recording using the edit panel.

While recording, you have limited feedback about the sound being recorded. The fluctuations of the VU meter (see Figure 5-42) are your only indications about the volume level. You do not see a waveform display until you click on ***Stop***, and you cannot hear the output as it is recording. To hear the recording you must play the file back.

Be sure to name and save recordings you plan to keep before recording again, or DTR will record over it. Refer to the earlier section on *Naming, Saving, Closing, and Opening Files and Edit Lists*.

Digital audio recordings reside on disk (in /tmp). You can record to the limits of your storage. The control panel constantly displays the amount of available storage. Figure 5-43 shows the location of this display.

Storage Remaining

Figure 5-43 DTR Display Showing Storage Remaining are using the microphone, simply speak; if you are using an audio tape player , turn it on and use the control panel. Figure 5-42 shows how to use the control panel to set up and record sound from any source.

1. Set the volume level
You may have
to make a test
recording first

2. Start recording
Be sure your
source is playing

3. Keep an eye on the level
Aim for peaks
about midway

4. Stop recording
Don’t forget to
turn off source

Figure 5-42 Steps for Recording Audio using DTR

Open edit lists from the edit panel, as shown in Figure 5-41. From this panel, you can also enter labels, set the duration and volume, and add edits to the edit list. Once an edit is saved onto an edit list, you can open the waveform by highlighting the name of the edit.

Figure 5-41 Opening Edit Lists from the Edit Panel

You do not need to close an edit list. If your edit list is saved, DTR closes the list for you when you open another list or quit DTR. If the edit list is unsaved, DTR prompts you to save it.

REMEMBER – It is always a good idea to name and save your file as soon as possible after recording it to prevent any possible data loss through system failure .

Recording with DTR

This section describes how to use DTR to record sound from any of the supported sources (see the section on *Getting Started*). If you already have an audio file recorded, see the section *Naming, Saving, Closing, and Opening Files and Edit Lists* or *Editing Recordings and Making Edit Lists.*

To record, ensure that the appropriate equipment is connected and operating, and the audio input and output sources are set. The method you use to record depends on the input you select. For example, if you

---

Note – The *Size to fit* option works best when starting from a normal view. It may not work as well if you try to size from an already altered display, such as compressed view.

Naming, Saving, Closing, and Opening Files and Edit Lists

Like the other MAEstro editors, DTR uses the *file browser* to manipulate files. You invoke the *file browser* in DTR using the ***Document*** menu as shown in Figure 5-40. For more information on using the *file browser*, see *Chapter 1, Introduction to MAEstro.*

Figure 5-40 Using the ***Document*** Menu to Open, Save, Name, and Close Files

From the *file browser*, you can name, save, open, and close recording files. You can also label, open, and save changes from the edit panel, described in more detail in the section on *Editing Recordings and Making Edit Lists*.

You can open audio files (display their waveforms) in several ways. One way is to use the *file browser* to load and open a file, another is to use the edit panel, and another is to use the edit list. The *file browser* opens specific files and displays them as waveforms on the control panel.

must select (highlight) an area at least two seconds long. To return to normal view , use the zoom slider . Figure 5-39 shows how to expand a waveform display , then return to normal.

Figure 5-39 Expanding the View and Returning to Normal View

Compressing a Waveform to See Entire File

A canvas can only show 10 seconds of a waveform at a time. When you need to see a larger portion, use the compression feature to compress waveforms so you can see the more of the recording. Figure 5-38 shows how to compress a view.

Figure 5-38 Compressing the Waveform View to Show Entire Audio File

Enlarging a Waveform using Size to Fit

To uncompress, or to enlarge a normal view, use the ***Size to Fit*** selection under the ***Options*** menu. Like ***zoom***, this causes the highlighted portion of the waveform to expand, but rather than enlarging by a factor, it expands to fit the global canvas window. You

Figure 5-37 Zooming in for an Enlarged View of the Waveform

Figure 5-36 Skipping and Scrolling through a Waveform

Note – There is a known error with the scroll bar in this version (1.0) of DTR. For the scroll bar to work, you must be zoomed in at least 1.10 times. Refer to the next section on *Using Zoom* for more information.

Using Zoom

Zoom allows you to select a part of the waveform, and enlarge it to show more detail. It is similar to the ***Size to Fit*** option, but allows you to specify the zoom factor specifically. Figure 5-37 shows how to use the zoom function.

To play part of a recording, use the mouse to highlight an area. To remove the highlight, use one of these techniques: click on the canvas, highlight another section, or select ***Reset Markers*** under the ***Options*** menu (refer back to Figure 5-33).

Note – If your file does not play, or only plays briefly, try selecting ***Reset Markers*** under the ***Options*** menu and then clicking on ***Play*** again. You may have accidently highlighted a small section of the file, preventing the sound from playing from the beginning.

Searching Through the Waveform

The waveform is a visual aid for locating specific points in the recording. You can view a waveform in these ways:

- Skip or scroll through the waveform
- Zoom in for a closer view of a section
- Compress the view so the entire recording fits in one screen
- Expand the view so a highlighted section fills a whole waveform canvas window

Using Skip and Scroll Controls

To skip or scroll through a waveform, use the buttons on the canvas control, as shown in Figure 5-36.

Playing and Searching

Because you can not hear the recording as it is being made, you may want to use play and search techniques to listen to it afterwards, before designating it as a finished edit. You can also use the play and search techniques to preview the contents of any existing recordings.

As with the other media editors, you can play the entire edit, or you can play selected portions. Figure 5-35 shows these two techniques.

Figure 5-35 Playing All or Part of a DTR Recording

Figure 5-34 The DTR Control Panel Major Functions

Using the Control Panel

This section describes how to use the control panel to perform functions common to both recording and editing audio. Specifically , it covers:

5. Playing and Searching
6. Naming and saving, and opening and closing edits and edit lists.

Figure 5-34 shows the control panel and labels the major functions.

Setting the Audio Input and Output Source

Since DTR provides output to a number of sources, you must set the source. The default output source is the internal speaker . To set the output source, select the ***Audio Output Options*** under the ***Options*** button, as shown in Figure 5-33.

Figure 5-33 The Audio Output Options Panel

This brings up the control panel as shown in Figure 5-32. You use the control panel to record and play. To modify recordings (duration, name, and volume), use the edit panel, also shown in the Figure. To avoid clutter on your screen, you can close panels to an icon. Figure 5-32 shows the icon for the DTR control and edit panels.

Figure 5-32 The Digital Tape Recorder Control and Edit Panels

You can obtain audio from any of these sources:

- High or low impedance microphone
- CD player
- Audio tape player
- VCR or videodisc player

You can output audio to any of these devices:

- The SPARCstation's internal speaker
- Headphones
- A powered external speaker

Invoking Digital Tape Recorder

To invoke Digital Tape Recorder, change to the appropriate directory, and type the following command in a shell window:

```
DTR&
```

Figure 5-31 The DTR Control Panel with Example Waveform

Getting Started

This section describes the prerequisites for using DTR. It lists the hardware requirements and input/output sources. Then it explains how to invoke the editor, and explains how to set the input and output source options.

Hardware Requirements and Input/Output Sources

To route audio in and out of your SPARCstation, you must have a Sun audio input/output cable attached to the SPARCstation's audio port. For input, you need a mono- or stereo mini-plug connector (a mini-plug is a 1/8th inch phono jack). For output, use a stereo mini-plug only. For more information on sound and the SPARCstation, see the *SPARCstation Installation Guide.*

Chapter 5,

Working with Audio (Digital Tape Recorder)

This chapter introduces the Digital Tape Recorder (DTR) media editor, and explains how you can use it to record and edit sound. It begins with an overview of DTR, followed by instructions for invoking and setting various options. It then covers the functions common to both recording and editing, such as playing, searching, naming, and saving. The last two parts of the chapter explains specifically how to record and edit.

About DTR

The Digital Tape Recorder (DTR) media editor lets you record and edit audio using the SPARCstation's built-in audio tools, such as the microphone inputs, and the speaker and headphone outputs. DTR accepts sound from a number of sources, such as audio tape, microphones, or compact disc (cdEdit, described in *Chapter 4, Working with Audio on CDs (cdEdit)*, controls the CD-ROM drive attached to the workstation). DTR is, however, the only media editor that allows you to digitally record original material.

DTR operates similarly to the other media editors. It provides a control panel to record sounds. It provides an edit panel for making lists of sound edits. It lets you combine edits from any sound source into edit lists for placement onto a time line.

DTR displays recordings visually, as waveforms. You preview, play, edit, and perform all operations on these waveforms or on highlighted sections of the waveform. Figure 5-31 shows a control panel with an example waveform.