

## Sound Forge: Effects

### Lesson 10: The Effects Menu

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#### What is the Effects menu?

The **Effects** menu lets you add all sorts of special effects to your recording. For example, you can add an echo, distort the sound, bend the pitch, or add some chorus. This menu is only available when a data window is open.



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#### How do I apply effects?

In general, here's how to apply an effect:

- 1) If you want the effect to apply to the entire sound file, don't select anything in the data window. If you want the effect to happen only for a subset of sound, select where you want it to occur.
- 2) Pull down the **Effects** menu and choose the effect you desire. A dialog box with options for the selected effect will appear.
- 3) Set the options as desired, then click **OK**.
- 4) Play the sound to hear the effect.

Following are descriptions of just a few of the available effects. Also included are some suggested practice exercises so that you can hear what different effects sound like, and learn a little about their options. (Open the "tutor1.wav" file for the practice exercises.)

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**Chorus:** This function is used to simulate multiple sound sources from a single sound. This is achieved by mixing a delayed, pitch-modulated copy of itself to the sound source.

*PRACTICE:*

1. Pull down the **Effects** menu and select **Chorus**.
2. Choose the **Light** effect and click **OK**.
3. Play the file to hear the effect.
4. Pull down the **Edit** menu and select **Undo** to reverse the change.

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**Delay/Echo:** This function creates copies of the original sound which are then mixed with the sound file to create simple echo effects.

*PRACTICE:*

1. Pull down the **Effects** menu and select **Delay/Echo**.
2. Enter 0.6 in the **Delay Time** field and click **OK**.
3. Play the file to hear the effect. You will hear a second copy of the sound 0.6 seconds after the original. Changing the delay time determines the time between the original and the echoed sound. Note: If you want an echo effect that contains more than a single copy of the original sound, check the **Multiple Delays/Echoes** box. The Delay Time will then determine how long it takes for these echoes to fade out.
4. Pull down the **Edit** menu and select **Undo** to reverse the change.

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**Flange:** This function creates the effects often heard in the 60's guitar recordings and techno-sounds.

*PRACTICE:*

- Pull down the **Effects** menu and select **Flange**.
  - Choose **Slow** and click **OK**.
  - Play the file to hear the effect.
  - Pull down the **Edit** menu and select **Undo** to reverse the change.
  - Repeat the exercise but choose **Warble** to compare the flange effects.
  - Pull down the **Edit** menu and select **Undo**.
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**Reverb:** This function simulates the acoustics of various environments.

*PRACTICE:*

- Pull down the **Effects** menu and select **Reverb**.
- Choose Bright Hall and click **OK**.
- Play the sound to hear the effect.
- Pull down the **Edit** menu and select **Undo** to reverse the change.
- Repeat the exercise but choose the Metal Tank option to compare the effects. Notice how the tone quality of this reverberation is very metallic.
- Pull down the **Edit** menu and select **Undo**.

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**Practice**

Practice applying more of the effects to see what they do. Try different functions under the **Effects** menu, and try them with different options selected. After you apply an effect, press the **Play** button on the toolbar to hear it. Don't forget to undo between each effect so you can hear the results of applying each separate effect.

## Lesson 11: The Process Menu

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### What is the Process menu?

The **Process** menu offers many ways to edit your original recorded piece. For example, if you pull down the **Process** menu and choose **Fade**, this will alter the sound file so that it fades out at the end. **Insert Silence** adds empty time to the end of the recording. If you choose **Reverse**, the sound file is completely reversed!



### How do I apply a process?

In general, here's how to apply a process:

- 1) If you want the process to apply to the entire sound file, don't select anything in the data window. If you want the process to apply only to a subset of sound, select where you want it to occur.
- 2) Pull down the **Process** menu and choose the process you want to apply. Most processes will present a dialog box with options for the selected process, although a few do not have any options.
- 3) If a dialog box with options appears, set the options as desired, then click **OK**.
- 4) Play the sound to hear the result.

Following are descriptions of just a couple of the available processes. Also included are some suggested practice exercises so that you can hear what the different processes do, and learn a little about their options. (Open the "saxriff.wav" file for the practice exercises.)

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**Time Compress/Expand:** This process stretches or compresses the time duration of the sound without altering the pitch. This is useful for shortening or lengthening sounds to meet a specific time requirement.

*PRACTICE:*

1. Pull down the **Process** menu and select **Time Compress/Expand**. An options dialog will appear.
2. Select **Solo Instruments** from the **Mode** menu, since we're editing a sax solo.
3. Change the **Final Length** from 2.5 to 2.0 seconds and click **OK**.
4. Click **Play** and you will hear the riff played at a faster tempo.
5. Pull down the **Edit** menu and select **Undo** to reverse the change.

Tip: Experimentation is the key to finding out what works best for your sound file.

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**Reverse:** This process reverses a sound wave so that it plays backwards.

*PRACTICE:*

1. Pull down the **Process** menu and select **Reverse**. No options are necessary.
2. Click **Play** and you will hear the riff played in reverse.
3. Pull down the **Edit** menu and select **Undo** to reverse the change.

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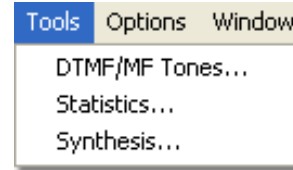
## **Practice**

Practice applying more of the processes to see what they do. Try different choices under the **Process** menu, and try them with different options selected. After you apply a process, press the **Play** button on the toolbar to hear it. Don't forget to undo between each try so you can hear the results of applying each separate process.

## Lesson 12: The Tools Menu

### What is the Tools menu?

The Tools menu gives you access to various sound utilities. Choose **DTMF/MF Tones** to insert the sound of a telephone dialing into your sound file. Select **Statistics** and see statistical information about the selected part of your sound file. The **Synthesis** tool will create a tone of a given pitch and length.



### How do I use the tools?

Following are some practice exercises so that you can familiarize yourself with each of the tools.

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**Statistics:** This tool opens a window with statistics on your sound wave.

*PRACTICE:*

1. Open a sound file.
2. Pull down the **Tools** menu and select **Statistics**.
3. A window with all sorts of statistics on the sound wave will appear.
4. Click the **Help** button to see an explanation of the various statistics.
5. When done, close the Help file and click **OK**.

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**Synthesis:** This tool generates a simple waveform of a given shape, pitch, and length.

*PRACTICE:*

1. Open a sound file.
2. Pull down the **Tools** menu and select **Synthesis**. An options dialog box will appear.
3. Select **Sine** from the **Waveform Shape** list.
4. Enter 3 in the **Length** field and 261.52 in the **Frequency** field.
5. Specify whether you want the tone to be inserted at the beginning of the sound file, at the end, or at the current location of the cursor.
6. Click **OK**. A sine wave will be generated in the data window that is 3 seconds long, and has a pitch of 261.52 Hz (Middle C).
7. Click **Play** to hear your tone.
8. Pull down the **Edit** menu and select **Undo** to reverse the change.
9. Try some other waveform shapes!

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**DTMF/MF Tones:** This tool is used to generate the dial tones used by telephone companies. These dial tones correspond to the numbers in a telephone unit.

*PRACTICE:*

1. Open a sound file.
2. Pull down the **Tools** menu and select **DTMF/MF Tones**. An options dialog box will appear.
3. Enter a phone number in the **Dial String** field.
4. Select **DTMF** as the tone style (this is the style of standard push-button telephones).
5. Adjust the **Amplitude** control; this determines how loud the tones will be.
6. Specify whether you want the tones to be inserted at the beginning of the sound file, at the end, or at the current location of the cursor.
7. Click **OK** to generate the tones.
8. Click **Play** to hear the tones of the phone number you specified.
9. Pull down the **Edit** menu and select **Undo** to reverse the change.

## End of Lesson

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