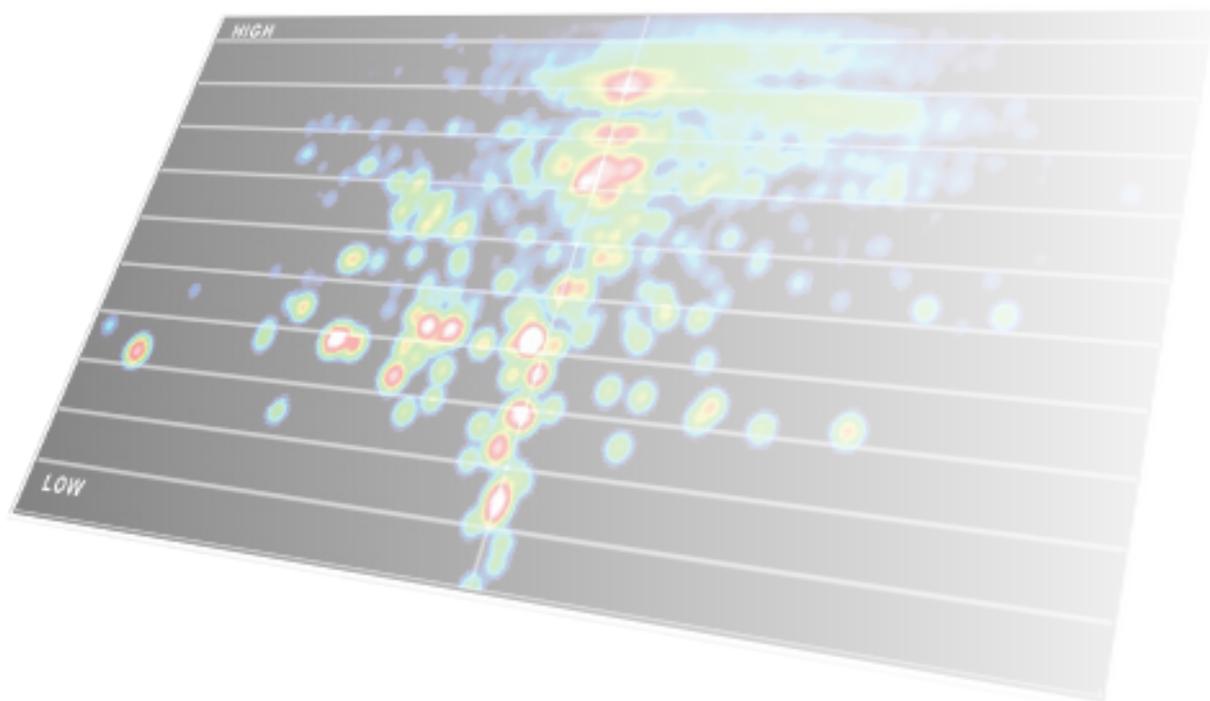


# Roland



# R-MIX

## Owner's Manual

# What Is R-MIX?

R-MIX uses Roland's proprietary V-Remastering technology and VariPhrase technology to apply a variety of signal processing to music.

R-MIX imports stereo-mixed music, analyzes it into the three parameters **"frequency," "panning,"** and **"volume,"** and graphically displays the sound of the instruments that make up the music.

You can also remix the music by selecting and **"muting," "preserving,"** or **"apply an effect"** the sound of each instrument. In addition, the **"playback speed"** and **"pitch"** of the audio signal can be controlled independently.

By taking advantage of these functions, you can enjoy a variety of applications. For example, you can **"create minus-one songs"** by adjusting the volume of the vocal portion of an existing song, produce **"remixes"** by varying the volume of the instruments or applying effects, or extract the sound of a specific instrument to make it **"easier to learn a song by ear."**

## What Is V-Remastering Technology?

This is proprietary Roland signal processing technology by which musical information such as **"level"** and **"panning"** is extracted from the audio signal for each frequency band, allowing total control of everything from the balance of the individual sounds to reconstructing the reverberation.

## What Is VariPhrase Technology?

This is proprietary Roland signal processing technology which allows the three elements of an audio phrase—**"pitch," "time (or speed),"** and **"formants (timbre)"**—to be controlled independently in real time.

Of these elements of VariPhrase technology, R-MIX can control the **"pitch"** and **"time,"** allowing you to perform slow playback or key changes with minimal loss in audio quality.

### MEMO

Even if you have not modified the parameter values, the audio output signal may differ from the original sound in some cases. This is due to the nature of R-MIX, and does not indicate a malfunction.

# IMPORTANT NOTES

## Handling CDs

**Do not use a CD-ROM in an audio CD player or DVD player**

- DO NOT play a CD-ROM disc on a conventional audio CD player. The resulting sound may be of a level that could cause permanent hearing loss. Damage to speakers or other system components may result.
- Avoid touching or scratching the shiny underside (encoded surface) of the disc. Damaged or dirty CD discs may not be read properly. Keep your discs clean using a commercially available CD cleaner.



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- It is forbidden by law to make an audio recording, video recording, copy or revision of a third party's copyrighted work (musical work, video work, broadcast, live performance, or other work), whether in whole or in part, and distribute, sell, lease, perform, or broadcast it without the permission of the copyright owner.
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- The copyright of content in this product (the sound waveform data, style data, accompaniment patterns, phrase data, audio loops and image data) is reserved by Roland Corporation.
- Purchasers of this product are permitted to utilize said content for the creating, performing, recording and distributing original musical works.
- Purchasers of this product are NOT permitted to extract said content in original or modified form, for the purpose of distributing recorded medium of said content or making them available on a computer network.
- Before you open the included CD-ROM, you must read the **"license agreement."** Opening the CD-ROM will be taken to mean your acceptance of the license agreement.

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- Microsoft product screen shot(s) reprinted with permission from Microsoft Corporation.
- Roland, V-Remastering and VariPhrase are either registered trademarks or trademarks of Roland Corporation in the United States and/or other countries.
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## Additional Precautions

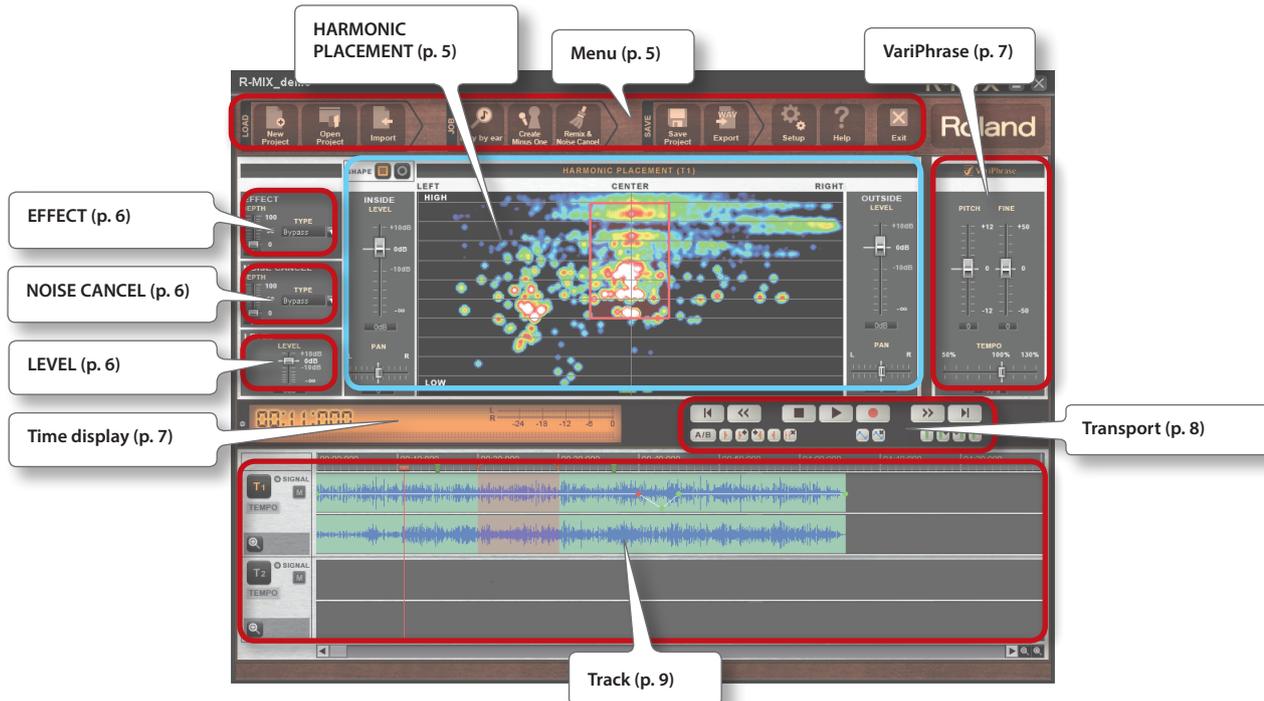
- Unfortunately, it may be impossible to restore the contents of data that was stored on a storage device (e.g., hard disk) once it has been lost. Roland Corporation assumes no liability concerning such loss of data.
- To avoid disturbing others nearby, try to keep the unit's volume at reasonable levels. You may prefer to use headphones, so you do not need to be concerned about those around you.

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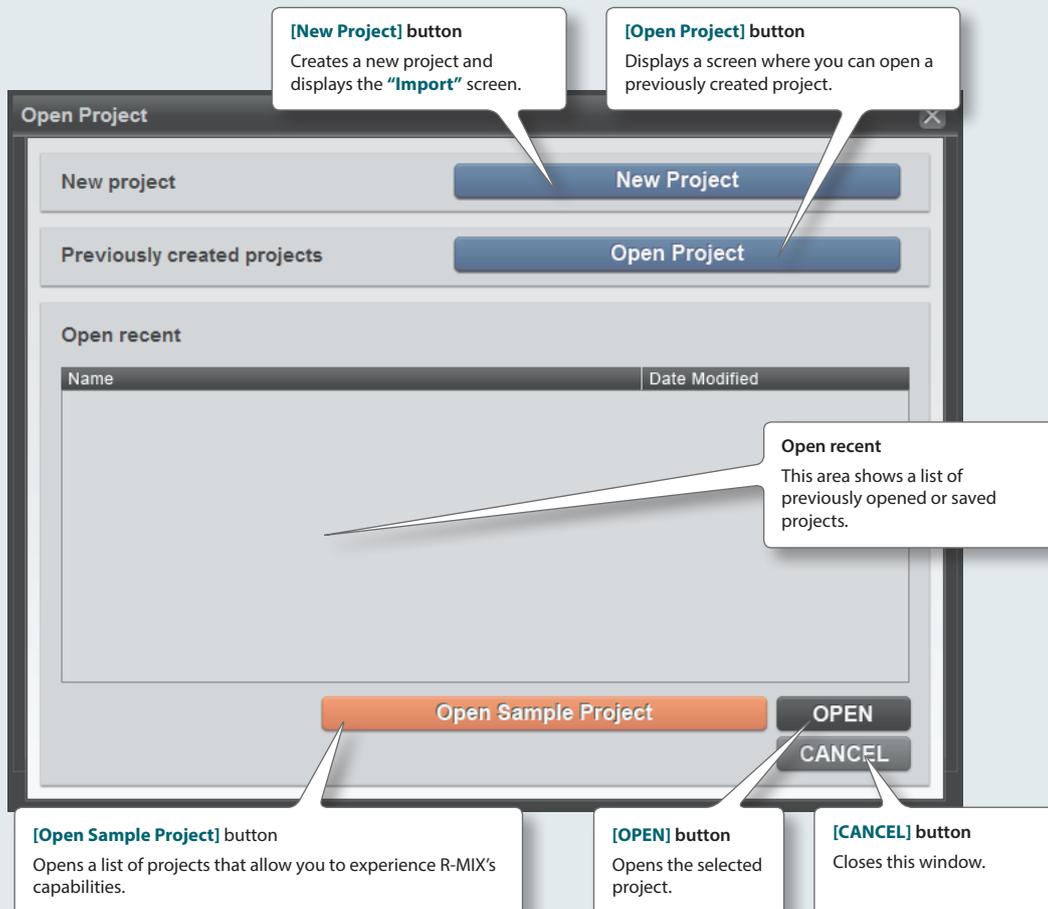
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# About the Screen

The illustration below shows the screen you'll see when using R-MIX.



## When you start up R-MIX, the "Open Project" window will appear



## What is a Project?

A "project" is R-MIX data that contains the imported audio data, the slider settings, and the data of the edited result. If you've saved a project before closing R-MIX, you'll be able to resume editing from the state in which you last saved your data.

\* The explanations in this manual include illustrations that depict what should typically be shown by the display. Note, however, that your unit may incorporate a newer, enhanced version of the system, so what you actually see in the display may not always match what appears in the manual.

## Menu

Frequently used functions in R-MIX are grouped here.

**[New Project] button**  
Creates a new project and displays the "Import" screen.

**[Import] button**  
Imports audio data into the current project.

**[Save Project] button**  
Saves the current project.

**[Setup] button**  
Makes various settings for R-MIX.

**[Exit] button**  
Closes R-MIX.

**[Open Project] button**  
Loads a project.

**[Play by ear] button, [Create Minus One] button, [Remix & Noise Cancel] button**  
Displays a simple explanation of three procedures that you can carry out using R-MIX.

**[Export] button**  
Exports the current project in WAV format.

**[Help] button**  
Displays the R-MIX version and the address of the Roland website. You can click "Manual (PDF)" to view this owner's manual.

## HARMONIC PLACEMENT

Here you can view the sound that is playing. By specifying a "frame" in the HARMONIC PLACEMENT area, you can edit the volume or panning.

**[SHAPE] buttons**  
Switches the shape of the frame.

**Frame**  
This frame encloses the sound that will be modified. You can move the frame's position, and change its size and shape.

**HARMONIC PLACEMENT**  
This area provides a visual representation of the sound that's being played.  
Color: Volume (loudness)  
Vertical axis: Frequency (pitch)  
Horizontal axis: Panning (stereo position)

**[INSIDE LEVEL] slider**  
Edits the volume of the sound inside the frame.

**[INSIDE PAN] slider**  
Edits the panning of the sound inside the frame.

**[OUTSIDE LEVEL] slider**  
Edits the volume of the sound outside the frame.

**[OUTSIDE PAN] slider**  
Edits the panning of the sound outside the frame.

**Frequency**  
Indicates the pitch of the sound. Higher-pitched sounds are shown at a higher position; lower-pitched sounds are shown at a lower position.

**Pan**  
Shows the location on the stereo sound field from which the sound is heard. Sounds heard from the left are shown at the left; sounds heard from the right are shown at the right.

**Volume**  
The volume of the sound is indicated by the color. The color will appear as follows according to the volume. Black (quiet) ... Blue ... Green ... Yellow ... Red ... White (loud)

### MEMO

If you right-click in the HARMONIC PLACEMENT area, a popup will show the frequency and note name at the mouse cursor location.

Example: 2182 Hz (C#7-28) ... Frequency (note name, octave, cent)

### EFFECT

You can apply an effect (delay, reverb, compressor) to the sound that's inside the frame. For details on the effects, refer to p. 22.

**[DEPTH] slider**  
Specifies the depth to which the effect is to be applied.



**TYPE**  
Selects the type of effect. Click [▼] and select an effect from the list.

**MEMO**

Double-clicking the slider will set its value to 0.

### NOISE CANCEL

This allows you to remove noise that might be included in the audio data. For more about the noise cancel function, refer to p. 23.

**[DEPTH] slider**  
Specifies the strength of the noise cancellation effect.



**TYPE**  
Selects the type of noise cancellation. Click [▼] and select a type from the list.

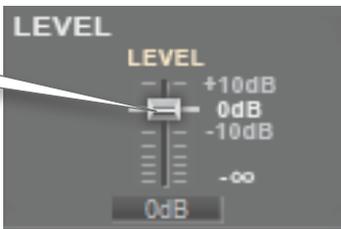
**MEMO**

Double-clicking the slider will set its value to 0.

### LEVEL

This adjusts the overall volume of track.

**[LEVEL] slider**  
Adjusts the overall volume of track.

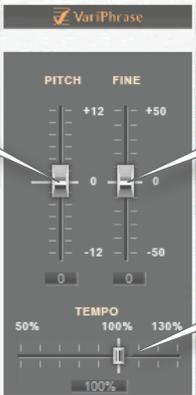


**MEMO**

Double-clicking the slider will set its value to 0 dB.

## VariPhrase

This lets you change the key (pitch) or the playback speed.



**[PITCH] slider**  
Specifies the key for playback. You can shift the key in semitone steps for a maximum of one octave up or down.

**[FINE] slider**  
Applies a fine adjustment to the playback key. You can shift the pitch in 1-cent steps for a maximum of 50 cents up or down.

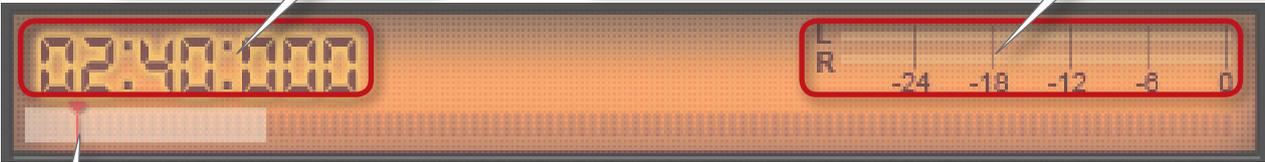
**[TEMPO] slider**  
Specifies the playback speed. You can specify the speed in the range of 50–130%. 100% is normal speed.

### MEMO

- Double-clicking a slider will set it to the center value (0 for PITCH or FINE; 100% for TEMPO).
- Changing the tempo will move the times of the **“audio clip,” “markers,”** point **“A,”** and point **“B.”** (The markers, point **“A,”** and point **“B,”** will move only when you change the tempo of T1.)  
The tempo cannot be slowed down beyond a point that would make these times exceed 60 minutes.

## Time Display

This displays information about the current project.



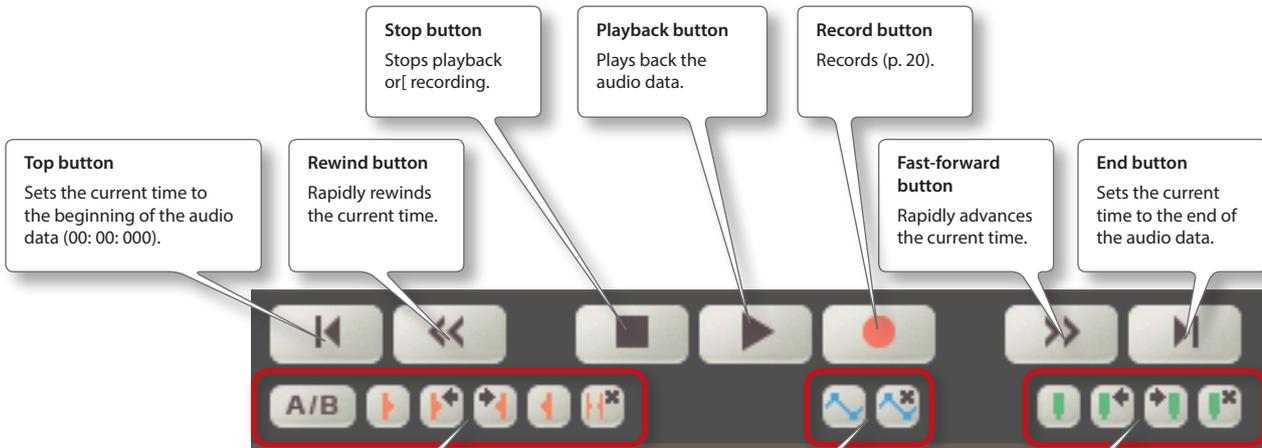
**Current time**  
Indicates the playback time of the audio data. The display format is minutes : seconds : 1/1000 seconds.

**Level meter**  
This meter indicates the output volume. The output volume will be affected by the **[INSIDE LEVEL]** slider, **[OUTSIDE LEVEL]** slider, **[LEVEL]** slider, and the volume envelope specified for the track. If the volume is excessive, the sound will distort (the right edge of the level meter will light red). If this occurs, lower the sliders or the volume envelope settings.

**Current time position**  
This indicates the position of audio data playback. You can change the current time position by using the mouse to drag this. The white portion shown at either side of the current time position indicates the region shown in the track.

# Transport

Here you can control audio data operations such as playback or stop.



**A/B repeat buttons**  
Allows you to repeatedly play back between the two points you specify.

Button	Explanation
	Successive clicks of this button will: set the start point (point "A"), set the end point (point "B"), erase points "A" and "B."
	Sets the current time as the start point (point "A") for A/B repeat.
	Moves the current time to the start point (point "A").
	Moves the current time to the end point (point "B").
	Sets the current time as the end point (point "B") for A/B repeat.
	Clears the start point and end point.

**Level point add/delete buttons**  
You can change the volume at the level points you specify.

Button	Explanation
	At the current time location, this button assigns a level point at which the volume will begin changing.
	Deletes the selected level point.

For more about using level points, refer to **"Smoothly Connecting Songs"** (p. 24).

**Marker buttons**  
You can assign markers at the desired time locations. You can jump to time locations at which you've assigned markers, or store slider settings or frame settings in a marker so that they will be automatically called up during playback (p. 36).

Button	Explanation
	Assigns a marker at the current time.
	Jumps to the marker that precedes the current time.
	Jumps to the marker that follows the current time.
	Deletes the marker at the current time.

# Track

This area displays the waveform. Here you can control how the volume will change over time, or specify a section to be played back repeatedly.

**Track ([T1], [T2]) buttons**  
These buttons select the track whose sound will be shown in HARMONIC PLACEMENT and which will be controlled by the sliders. These buttons also select the track that will be recorded.

**Volume envelope (white line)**  
Here you can view and specify how the volume will change over time.

**Level point (selected)**  
**Level point**

**Audio clip**  
This shows the waveform of the audio data to be played. The upper waveform is the audio data of the left channel, and the lower waveform is the audio data of the right channel.

**SIGNAL indicators**  
When audio is being input, the appropriate SIGNAL indicator will light green or orange. If it lights red, the input is too high. Adjust the volume of the input device.

**Mute ([M]) buttons**  
If the mute button is on (lit green), that track will not produce sound.

**Scroll bar**  
The displayed region of the audio data can be moved forward or backward by dragging this. By clicking the triangular buttons at the two ends, you can move the displayed region in small increments.

**Current time**  
**Markers**  
**point A**  
**point B**  
**Time ruler**  
This shows time information for the audio data.

**Waveform zoom in/out buttons**  
These are zoom in/out buttons for the vertical axis of the waveform display.

**TEMPO buttons**  
When you click this, a tempo guide (vertical lines that mark the waveform at intervals of the tempo guide value) will be displayed on the track (p. 34). You can set the tempo guide value in the range of 10–300.

**A/B repeat**  
The region between points "A" and "B" will play repeatedly.

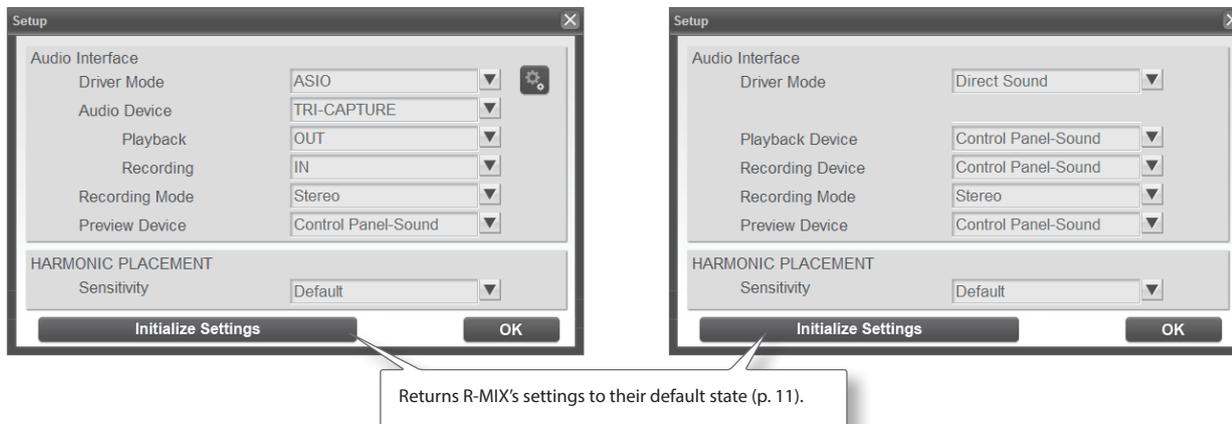
**Waveform zoom in/out buttons**  
These are zoom in/out buttons for the time axis of the waveform display.

# Setting Up R-MIX

Here's how to make settings for your audio interface and specify how R-MIX is to operate.

## 1. In the menu, click the **[Setup]** button.

The "Setup" window will appear.



## 2. Refer to the table below, and make the device settings as appropriate for your system.

Audio Interface	Value	Explanation
Driver Mode	Direct Sound	Choose this if you're using an audio device that's compatible with Direct Sound.
	ASIO	Choose this if you're using an audio device that's compatible with ASIO. The ASIO setup screen will appear when you click the  button.
Audio Device (*1) (*3)	Specify the device you'll use for playback or recording.	
Playback Device (*2)	Specify the device and channels you'll use for playback. If you're using a device that has multiple output channels, you can choose the channels that will be used for output. If you choose "Control Panel - Sound," playback will take place using the device that's selected in the Control Panel item "Sound" or "Sound and Audio Device."	
	Specify the device and channels you'll use for recording. If you're using a device that has multiple input channels, you can choose the channels whose input will be recorded. If you choose "Control Panel - Sound," the sound being input to the device that's selected in the Control Panel item "Sound" or "Sound and Audio Device" will be recorded..	
Recording Device (*2)	Specify the device and channels you'll use for recording. If you're using a device that has multiple input channels, you can choose the channels whose input will be recorded. If you choose "Control Panel - Sound," the sound being input to the device that's selected in the Control Panel item "Sound" or "Sound and Audio Device" will be recorded..	
Playback (*1)	Specify the channels you'll use for playback. If you're using a device that has multiple output channels, you can choose the channels that will be output.	
Recording (*1)	Specify the channels you'll use for recording. If you're using a device that has multiple input channels, you can choose the channels whose input will be recorded.	
Recording Mode	Specify the number of recording channels.	
	Stereo	Record in stereo.
	Mono (Left)	Record the left-channel sound onto both channels.
Preview Device	Specify the device you'll use for preview playback in the "Import" window. If you choose "Control Panel - Sound," the sound will be played back from the device that's selected in the Control Panel item "Sound" or "Sound and Audio Device."	
	The audio sound of the opening movie will play back from the device you specify here.	

(\*1) This item can be set if the driver mode is set to ASIO.

(\*2) This item can be set if the driver mode is set to Direct Sound.

(\*3) The supported sampling rates are 44.1 kHz and 48 kHz.

HARMONIC PLACEMENT	Value	Explanation
Sensitivity	Adjust the sensitivity for the loudness (color) of the sounds shown in HARMONIC PLACEMENT.	
	Low	Most sounds will be shown in the blue-green range, even with high-volume songs.
	Default	Normal sensitivity.
	High	Most sounds will be shown in the red-white range, even with low-volume songs.

## 3. Click the **[OK]** button.

### About the “Initialize Settings” button

Use this when you want to restore the default settings of R-MIX.

When you click the “**Initialize Settings**” button, a screen will ask whether you’re sure you want to restore the settings.

If you click the **[Yes]** button, the following settings will be restored to their default state.

- The choice of whether to show the “**Tips**” screen when R-MIX starts up
- Settings of the “**Setup**” screen
- Folders referenced in “**Import**,” “**Save project**,” and “**Export**”
- List of recently used projects

# Basic Operation

This section explains how to use the buttons and sliders, how to manipulate the frame, and how to move audio clips.

## Button Operations

You can operate the menu and transport buttons by clicking them.

1. Move the mouse cursor onto the desired button.

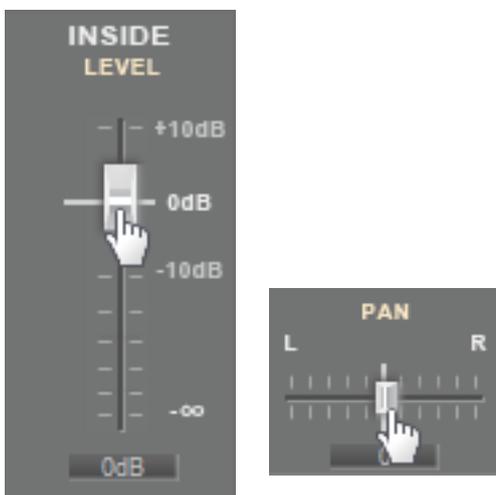


2. Click the button.

## Slider Operations

You can operate a slider by dragging its knob.

1. Move the mouse cursor to the knob of the desired slider.

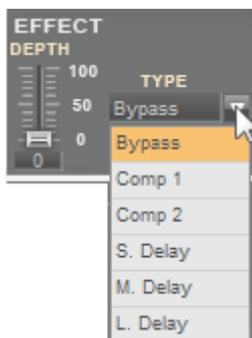


2. Drag the slider knob to adjust the value.

## TYPE Selection

The TYPE field lets you select the desired effect or the type of noise you want to eliminate.

1. Click the [▼] located at the right of the TYPE field.



2. Click the desired item in the list that appears.

## Frame Operations

By changing the size, shape, and position of the frame, you can specify the sound that will be modified.

### Changing the Frame Shape

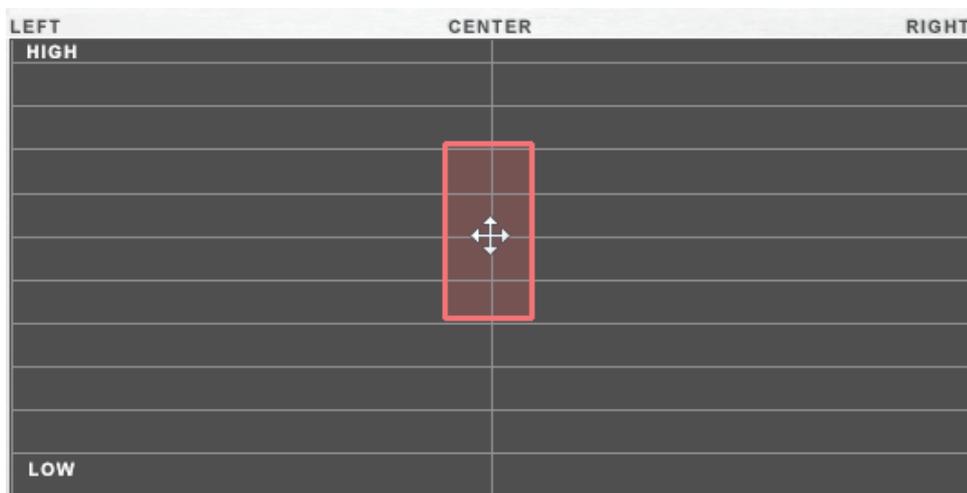
For each track, you can switch the shape of the frame between rectangular and circular.

1. Click the **T<sub>1</sub>** button if you want to switch the shape of the frame for track 1, or click the **T<sub>2</sub>** button for track 2.
2. Click the **SHAPE**  button to select a rectangular frame, or the **SHAPE**  button to select a circular frame.

### Moving the Frame Position

You can move the frame up/down or left/right.

1. Move the mouse cursor to the inside of the frame.

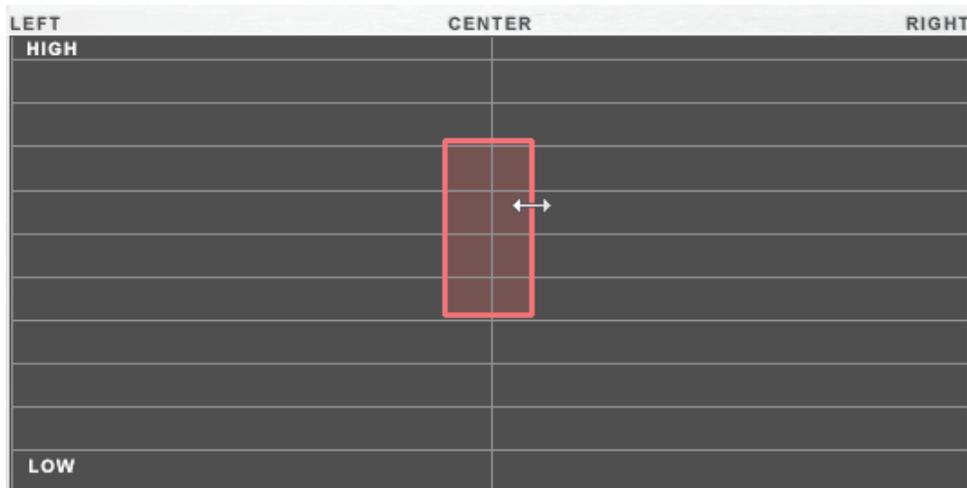


2. Drag the frame to the desired position.

### Changing the Frame Size

You can change the frame to the desired size.

1. Move the mouse cursor onto the edge of the frame.



2. Drag the edge of the frame to the desired size.

## Reverting Changes to the Frame

1. If you want to undo any changes you've made to the frame, double-click the HARMONIC PLACEMENT area.

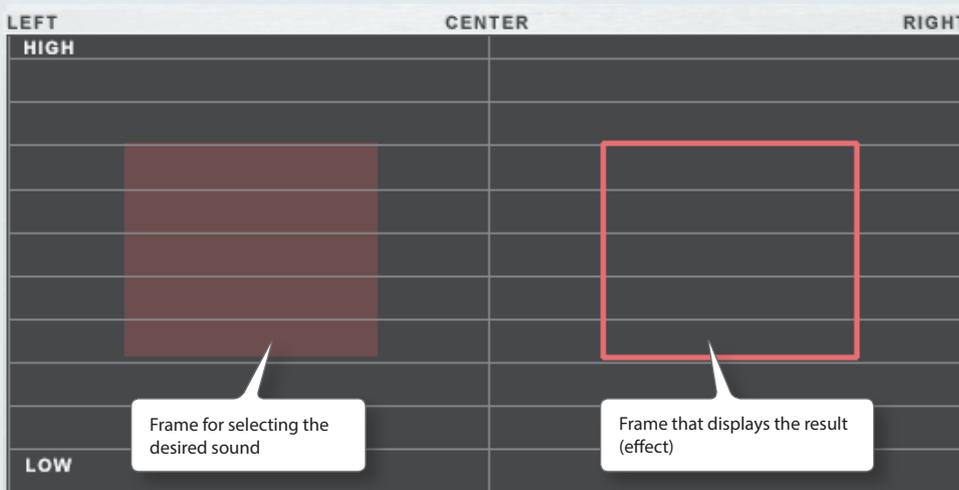


2. The size and shape of the frame will return to their default states.

### How the frames work

Your work in R-MIX is centered on two “frames”: one frame (brick colored) used to select the desired sound, and another frame (red) that displays the result of processing the sound you selected. When you start up R-MIX, these two frames will be overlapping, so they will appear to be one frame. However, when you move the **[INSIDE PAN]** slider, you'll see the frames separate.

If you want to search for a desired sound or modify the size of the frame after operating **[INSIDE PAN]**, you should operate the brick-colored frame.



## Manipulating Audio Clips

The audio clips you've imported into a project can be moved, copied, or deleted.

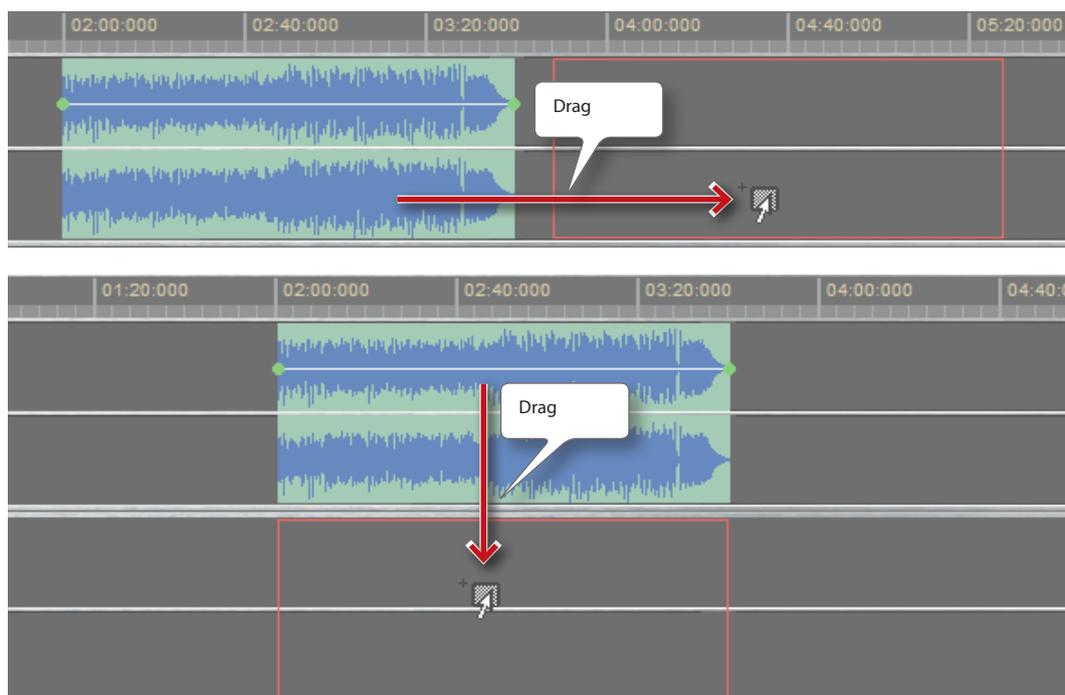
### Moving an Audio Clip

An audio clip can be moved within a track as well as between tracks.

1. Move the mouse cursor onto the audio clip that you want to move.
2. If you want to change the time at which the sound starts playing, drag the audio clip to the left or right. If you want to move the audio clip to another track, drag it up or down.

#### MEMO

You cannot move an audio clip to a location where it would overlap another audio clip.



### Copying an Audio Clip

An audio clip imported into a project can be copied and duplicated.

1. Move the mouse cursor onto the audio clip that you want to copy.
2. Hold down the keyboard's **[Ctrl]** key and drag the audio clip.

#### MEMO

- The total time of the audio clips in a project (track 1 plus track 2) cannot exceed 100 minutes; copying is not possible if this limit would be exceeded.
- If you copy an audio clip with the unwanted portion hidden, the data of the hidden portion will also be copied.
- You cannot copy an audio clip to a location where it would overlap another audio clip.

### Deleting an Audio Clip

You can delete an audio clip that you no longer need.

1. Move the mouse cursor onto the audio clip that you want to delete.
2. Right-click and choose **"Delete."**

# Learning a Song by Ear

Learning a song by ear is the process of listening repeatedly to a song while you try to play along with the performance, perhaps also writing down what you hear on musical staff paper.

Normally, a performance recorded on a commercial CD will contain numerous instruments mixed together. Listening to the sound of a specific instrument within the mix or attempting to write down the notes is a difficult task that requires experience, a good sense of pitch and rhythm, and can also take a great deal of time. R-MIX can help you extract specific sounds from a mix of various instruments, allowing you to create audio that will make it easier to learn a song by ear.

## Extracting Only the Sounds You Want to Learn

Here's how the specific sounds you want to learn can be extracted from the song.

### 1. Prepare the audio data containing the performance that you want to learn by ear.

The audio data format must be as follows.

Item	Format
Format	WAV
Sampling Rates	44.1, 48 kHz
Bit Rate	16-bit
Channels	Monaural, Stereo

#### MEMO

You can't import data if its length is extremely short, or if its length exceeds 60 minutes.

### 2. Start up R-MIX.

The "Open Project" window will appear.

#### MEMO

If the "Tips" screen appears, click the [OK] button.

### 3. Click the "New Project" button.

The "Import" window will appear.

The screenshot shows the 'Import' window with the following callouts:

- Items**: Click an item to change the order of the list (by name or by date of modification).
- Folder name**: This shows the name of the folder that's currently open. Click here to see the name of the parent folder (the folder located above the current folder).
- Previously used folder button**: Click this to return to the previously used folder and view its contents.
- Parent folder button**: Click this to move to the parent folder (the folder above) the currently open folder.
- Default folder button**: Click this to return to the default folder (R-MIX folder).
- [OPEN] button**: Imports the selected file.
- [CANCEL] button**: Cancel without importing.
- [Preview] button (\*1)**: Click this to audition the selected file. Auditioning is possible only for files in a format that can be imported.
- Files and folders**: This area shows the contents of the folder that's currently open. You can select the desired file, or select another folder to view its contents.

Name	Date Modified
1 Sample Create Minus One.wav	2011/12/01 00:00
2 Sample Noise Cancel AirCon.wav	2011/12/01 00:00
3 Sample Noise Cancel HissNoise.wav	2011/12/01 00:00
4 Sample Noise Cancel HumNoise.wav	2011/12/01 00:00
5 Sample Noise Cancel WindNoise.wav	2011/12/01 00:00
6 Sample Play by ear 1.wav	2011/12/01 00:00
7 Sample Play by ear 2.wav	2011/12/01 00:00

\* (\*1) Playback will occur from the device specified as "Preview Device" in the "Setup" window.

**4. Select the audio data of the performance that you want to learn by ear, and click the [OPEN] button.**

The audio will be imported into the current project.

**MEMO**

An audio clip imported into the project can also be deleted from the project.

1. Move the mouse cursor to the audio clip that you want to delete.
2. Right-click, and then click **"Delete."**

**5. Click the [Play] button.**

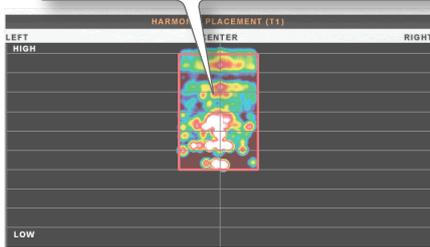
The audio will play.

**6. Lower the [OUTSIDE LEVEL] slider.**

You'll hear only the sound that is enclosed by the frame.

**7. Slowly move the frame to find the position where the sound you want to learn is loudest.**

Align the frame with the sound you want to learn, so that the frame encloses the sounds that light up.



**8. Adjust the shape and size of the frame.**

As far as possible, adjust the size so that only the desired sound is enclosed.

**MEMO**

- If you click the **[Play by ear]** button in the menu, an explanation of the procedure for extracting sound will be displayed.
- It will be easier to set the position of the frame if you use A/B Repeat (p. 9) to play back the desired phrase repeatedly.

**Tips for learning a song by ear**

- If you're experiencing difficulty because the sound you're trying to learn is not loud enough, or if you want it to play more loudly than the other parts, raise the **[INSIDE LEVEL]** slider to increase the volume of the part you're learning.
- If you're experiencing difficulty because a specific part is too loud, use the frame to enclose the part that's too loud, and lower the **[INSIDE LEVEL]** to eliminate the sound of that part.
- When your ear has become accustomed to the sound, you can raise the **[OUTSIDE LEVEL]** slightly, and practice along with the other sounds.

## Slowing the Playback Tempo

Slowing the playback speed of the extracted sound will make it easier to learn even rapidly played phrases.

**1. Move the VariPhrase [TEMPO] slider toward the left.**

The playback speed will become slower. You can decrease the speed down to half (50%) normal speed.

**MEMO**

- Moving the **[TEMPO]** slider toward the right will speed up the playback. You can increase the playback up to 1.3 times (130%) normal speed.
- If you change the tempo of T1, the times you specified for the markers (p. 9) and A/B repeat (p. 9) will also change in tandem. If you change the tempo of T2, the marker and A/B repeat times will not change.
- The tempo cannot be slowed down beyond a point that would make the **"audio clip," "marker,"** point **"A,"** and point **"B"** times exceed 60 minutes.

# Creating Minus-One Data

“Minus-one” refers to playback in which the sound of a specific part (instrument) has been removed from the performance on a CD or other recording. The accompaniment used in karaoke is also a kind of “minus-one” in which the vocal part has been removed. If your band is going to be playing a song from a commercial CD, it is effective to use minus-one data for your own personal practicing. Since R-MIX is able to remove a specific part from a song, you can use it to create minus-one data that omits the part you’ll be playing—which you can then practice yourself.

## Removing a Part

Here’s how to find a specific sound in the song and minimize its volume (to remove that part).

### 1. Prepare the audio data containing the performance that you want to play as minus-one data.

The audio data format must be as follows.

Item	Format
Format	WAV
Sampling Rates	44.1, 48 kHz
Bit Rate	16-bit
Channels	Monaural, Stereo

#### MEMO

You can’t import data if its length is extremely short, or if its length exceeds 60 minutes.

### 2. Start up R-MIX.

The “Open Project” window will appear.

#### MEMO

If the “Tips” screen appears, click the [OK] button.

### 3. Click the “New Project” button.

The “Import” window will appear.

The screenshot shows the 'Import' window in R-MIX. At the top, there is a text field containing 'R-MIX' and a folder name field. Below these are navigation buttons: a left arrow (Previously used folder button), a right arrow (Parent folder button), and a square button (Default folder button). The main area is a list of files with columns for 'Name' and 'Date Modified'. The list contains seven items, all with a date of 2011/12/01 00:00. At the bottom, there are 'OPEN' and 'CANCEL' buttons, and a 'Preview' button with a play icon. Callouts provide detailed instructions for each of these elements.

**Items**  
Click an item to change the order of the list (by name or by date of modification).

**Folder name**  
This shows the name of the folder that’s currently open. Click here to see the name of the parent folder (the folder located above the current folder).

**Previously used folder button**  
Click this to return to the previously used folder and view its contents.

**Parent folder button**  
Click this to move to the parent folder (the folder above) the currently open folder.

**Default folder button**  
Click this to return to the default folder (R-MIX folder).

**[OPEN] button**  
Imports the selected file.

**[CANCEL] button**  
Cancel without importing.

**[Preview] button (\*1)**  
Click this to audition the selected file. Auditioning is possible only for files in a format that can be imported.

**Files and folders**  
This area shows the contents of the folder that’s currently open. You can select the desired file, or select another folder to view its contents.

Name	Date Modified
1 Sample Create Minus One.wav	2011/12/01 00:00
2 Sample Noise Cancel AirCon.wav	2011/12/01 00:00
3 Sample Noise Cancel HissNoise.wav	2011/12/01 00:00
4 Sample Noise Cancel HumNoise.wav	2011/12/01 00:00
5 Sample Noise Cancel WindNoise.wav	2011/12/01 00:00
6 Sample Play by ear 1.wav	2011/12/01 00:00
7 Sample Play by ear 2.wav	2011/12/01 00:00

\* (\*1) Playback will occur from the device specified as “Preview Device” in the “Setup” window.

**4. Select the audio data that you want to play as minus-one data, and click the [OPEN] button.**

The audio will be imported into the current project.

**MEMO**

- An audio clip imported into the project can also be deleted from the project.
1. Move the mouse cursor to the audio clip that you want to delete.
  2. Right-click, and then click "Delete."

**5. Click the [Play] button.**

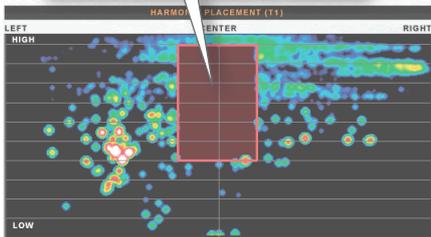
The audio will play.

**6. Lower the [INSIDE LEVEL] slider.**

The sound enclosed by the frame will decrease (disappear).

**7. Slowly move the frame to find the position that eliminates the sound of the part (instrument) you want to remove.**

Align the frame to the sound that lights up in synchronization with the sound you want to remove.



**MEMO**

To find the part that you want to eliminate, listen to the playback while paying attention to the position (left/right location) of that sound and its pitch (i.e., whether it's a high or low sound).

**8. Adjust the shape and size of the frame.**

The sound won't be removed appropriately if the frame is too large or too small.

As far as possible, adjust the size so that the frame encloses only the specific sound you're trying to remove.

**MEMO**

- If you click the [Create Minus-One] button in the menu, an explanation of the procedure for creating minus-one data will be displayed.
- If the target sound does not disappear, go back to step 6 and find the sound again. If the sound is not eliminated as you expect, adjust the size, position, and shape of the frame.
- Depending on the type or state of the sound you're trying to remove, it might not be possible to remove it completely.
- You can create minus-one data in specific sections of a song, for example by removing the guitar only from the guitar solo section. For details, refer to "Using Markers to Automatically Switch Effects" (p. 36).

### Matching the Key

If the original key of the song being played as minus-one differs from the key in which you want to perform, you can change the playback key.

#### 1. Move the VariPhrase [PITCH] slider up or down.

You can change the key in semitone steps. The [PITCH] slider lets you change the key in a range of one octave upward or downward.

#### 2. Move the VariPhrase [FINE] slider up or down.

This lets you adjust the key in steps of one cent (one semitone = 100 cents). The [FINE] slider lets you adjust the key in a range of 50 cents upward or downward.

#### MEMO

If you're unable to match the key by moving the [PITCH] slider, or if you want to adjust the pitch to match the instrument you're playing, you can use the [FINE] slider to make fine pitch adjustments.

### Recording a Vocal or Performance Together with the Minus-One Data

Here's how to record the sound as you sing or play an instrument along with the minus-one data.

#### 1. Make minus-one settings as described in "Removing a Part" (p. 18).

#### MEMO

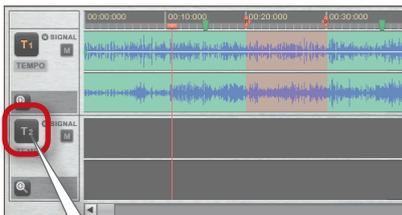
Adjust the playback speed (p. 17) and key (p. 20) as necessary.

#### 2. Input the signal from the microphone or instrument being used to record your vocal or performance into your audio interface.

#### MEMO

- The sound input from the microphone or instrument will not be output from R-MIX during recording. Use the direct monitor function of your audio interface to output the sound.
- The SIGNAL indicator of the selected track (T1 or T2) will light in correspondence with the sound of your vocal or instrumental performance. If it does not light, check the connections with your device, and check the audio interface settings in the "Setup" window.
- On your audio interface, adjust the volume (gain) of the audio input so that the SIGNAL indicator lights orange when loud sounds are input. Lower the volume if the indicator lights red; raise the volume if the indicator only lights green.
- If you're recording from only one of your audio interface's input jacks (only the L-channel or R-channel), set the "Setup" window's "Audio Interface - Recording Mode" setting to Mono (Left) or Mono (Right). The audio input will be recorded on both the L-channel and R-channel.

#### 3. Click the track button of the track that does not contain audio data.



Click the track button of the track that does not contain data.

In the example shown in the illustration, T1 contains the minus-one audio and T2 is empty. For this example, click the track [T2] button.

#### MEMO

When recording, turn A/B Repeat off (p. 9).

#### 4. Click the [Record] button.

T2 will start recording the moment that the minus-one audio of T1 starts playing back.

#### 5. Perform your vocal or instrument.

Your performance will be recorded on T2.

#### 6. Play back to check the recorded result.

#### MEMO

Use the volume envelope (p. 33) to adjust the volume balance between the minus-one data and the recorded data.

# Editing a Live Recording or Other Material

## Adjusting the Volume Balance of the Parts (Instruments)

Here's how to adjust the volume balance of specific sounds.

For example, if you feel that the vocal part in a live recording is not loud enough, you can adjust the volume of that specific part.

### 1. Prepare the audio data for which you want to adjust the volume balance.

The audio data format must be as follows.

Item	Format
Format	WAV
Sampling Rates	44.1, 48 kHz
Bit Rate	16-bit
Channels	Monaural, Stereo

#### MEMO

You can't import data if its length is extremely short, or if its length exceeds 60 minutes.

### 2. Start up R-MIX.

The "Open Project" window will appear.

#### MEMO

If the "Tips" screen appears, click the [OK] button.

### 3. Click the "New Project" button.

The "Import" window will appear.

The screenshot shows the 'Import' window with the following callouts:

- Items**: Click an item to change the order of the list (by name or by date of modification).
- Folder name**: This shows the name of the folder that's currently open. Click here to see the name of the parent folder (the folder located above the current folder).
- Previously used folder button**: Click this to return to the previously used folder and view its contents.
- Parent folder button**: Click this to move to the parent folder (the folder above) the currently open folder.
- Default folder button**: Click this to return to the default folder (R-MIX folder).
- [OPEN] button**: Imports the selected file.
- [CANCEL] button**: Cancel without importing.
- [Preview] button (\*1)**: Click this to audition the selected file. Auditioning is possible only for files in a format that can be imported.
- Files and folders**: This area shows the contents of the folder that's currently open. You can select the desired file, or select another folder to view its contents.

Name	Date Modified
1 Sample Create Minus One.wav	2011/12/01 00:00
2 Sample Noise Cancel AirCon.wav	2011/12/01 00:00
3 Sample Noise Cancel HissNoise.wav	2011/12/01 00:00
4 Sample Noise Cancel HumNoise.wav	2011/12/01 00:00
5 Sample Noise Cancel WindNoise.wav	2011/12/01 00:00
6 Sample Play by ear 1.wav	2011/12/01 00:00
7 Sample Play by ear 2.wav	2011/12/01 00:00

\* (\*1) Playback will occur from the device specified as "Preview Device" in the "Setup" window.

### 4. Select the audio data that you want to edit, and click the [OPEN] button.

The audio will be imported into the current project.

#### MEMO

An audio clip imported into the project can also be deleted from the project.

1. Move the mouse cursor to the audio clip that you want to delete.
2. Right-click, and then click "Delete."

## Editing a Live Recording or Other Material

### 5. Click the [Play] button.

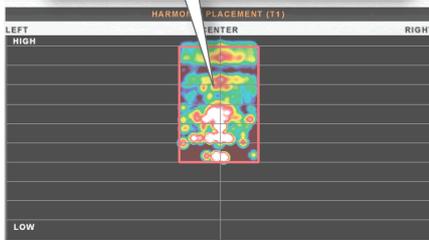
The audio will play back.

### 6. Lower the [OUTSIDE LEVEL] slider.

Now, only the sound enclosed by the frame will be heard.

### 7. Slowly move the frame to find the location where the sound you want to adjust is louder.

Use the frame to enclose the sounds that light up in synchronization with the sounds whose volume you want to adjust.



### 8. Adjust the shape and size of the frame.

As far as possible, adjust the size so that only the target sound is enclosed.

### 9. Use [INSIDE LEVEL] and [INSIDE PAN] to adjust the sound that's inside the frame, and use [OUTSIDE LEVEL] and [OUTSIDE PAN] to adjust the sound that's outside the frame.

## Applying an Effect to a Part

You can apply an effect to a specific part (instrument).

### 1. As described in steps 1–8 of “Adjusting the Volume Balance of the Parts (Instruments)” (p. 21), use the frame to enclose the sound of the part (instrument) to which you want to apply an effect.

### 2. In the EFFECT section, use TYPE to select the desired type of effect.



TYPE	Explanation
Bypass	No effect will be used.
Comp 1 Comp 2	These are compressor effects. They make the volume of the sound more consistent.
S. Delay	This is a short delay effect. It creates a doubling effect that layers a copy of the sound on itself.
M. Delay	This is a delay effect of a typical length.
L. Delay	This is a long delay effect.
Room Rev	This is a reverb effect that simulates the reverberation of a room.
Hall Rev	This is a reverb effect that simulates the reverberation of a hall.
Plate Rev	This is a reverb effect that simulates a metal plate reverb device. It produces a distinctively bright reverberation.

### 3. Click the [Play] button.

The audio will play.

### 4. Raise the EFFECT [DEPTH] slider to adjust the intensity of the effect.



## Reducing Noise

You can minimize just the noise component of audio data in order to obtain a clearer sound.

For example, a live recording sometimes contains power supply noise or noise from an air conditioner, and sound played back from a cassette tape might contain high-frequency hiss.

Since R-MIX is able to remove such noises, it can be used to restore the clarity of an audio recording.

1. In **NOISE CANCEL**, use **TYPE** to select the type of noise that you want to remove.



TYPE	Explanation
Bypass	Noise cancellation will not be used.
HissNoise	Reduces the high-frequency hiss typical of analog tape.
HumNoise	Reduces the low-frequency noise heard when a noisy power supply is used.
WindNoise	Reduces the wind noise that is heard when strong wind blows on a microphone while recording outdoors.
AirCon	Reduces the air-flow noise and motor noise heard from an operating air conditioner.

2. Click the **[Play]** button.

The audio will play.

3. Raise the **NOISE CANCEL [DEPTH]** slider to adjust the strength of the noise cancellation.

The **NOISE CANCEL** effect applies to the entire waveform imported into the track, regardless of the red frame.



### MEMO

- Depending on the extent to which the undesired noise is present, it might not be possible to remove the noise completely.
- If you click the **[Remix & Noise Cancel]** button in the menu, an explanation of the steps for using effects and noise cancellation will appear.
- If the **[DEPTH]** slider is raised excessively, sound other than the noise might be removed, and the tone quality might be affected.
- If you want to use two or more types of noise cancellation, save the result of using the first noise cancellation as a WAV file (p. 31), and then import that WAV file and apply the second type of noise cancellation.

# Creating a Medley

## Smoothly Connecting Songs

Here's how to connect multiple songs for playback in succession.

When songs are played back successively, you can also crossfade the transitions so that they occur smoothly.

### MEMO

The technique of gradually interchanging two sources at the point where they meet is called “**crossfading**.”

### 1. Prepare the audio data for the songs that you want to assemble into a medley.

The audio data format must be as follows.

Item	Format
Format	WAV
Sampling Rates	44.1, 48 kHz
Bit Rate	16-bit
Channels	Monaural, Stereo

### MEMO

You can't import data if its length is extremely short, or if its length exceeds 60 minutes.

### 2. Start up R-MIX.

The “**Open Project**” window will appear.

### MEMO

If the “**Tips**” screen appears, click the [OK] button.

### 3. Click the “**New Project**” button.

The “**Import**” window will appear.

The screenshot shows the 'Import' window with the following callouts:

- Items**: Click an item to change the order of the list (by name or by date of modification).
- Folder name**: This shows the name of the folder that's currently open. Click here to see the name of the parent folder (the folder located above the current folder).
- Previously used folder button**: Click this to return to the previously used folder and view its contents.
- Parent folder button**: Click this to move to the parent folder (the folder above) the currently open folder.
- Default folder button**: Click this to return to the default folder (R-MIX folder).
- [OPEN] button**: Imports the selected file.
- [CANCEL] button**: Cancel without importing.
- [Preview] button (\*1)**: Click this to audition the selected file. Auditioning is possible only for files in a format that can be imported.
- Files and folders**: This area shows the contents of the folder that's currently open. You can select the desired file, or select another folder to view its contents.

Name	Date Modified
1 Sample Create Minus One.wav	2011/12/01 00:00
2 Sample Noise Cancel AirCon.wav	2011/12/01 00:00
3 Sample Noise Cancel HissNoise.wav	2011/12/01 00:00
4 Sample Noise Cancel HumNoise.wav	2011/12/01 00:00
5 Sample Noise Cancel WindNoise.wav	2011/12/01 00:00
6 Sample Play by ear 1.wav	2011/12/01 00:00
7 Sample Play by ear 2.wav	2011/12/01 00:00

\* (\*1) Playback will occur from the device specified as “**Preview Device**” in the “**Setup**” window.

4. Select the audio data for the first song in the medley, and click the [OPEN] button.

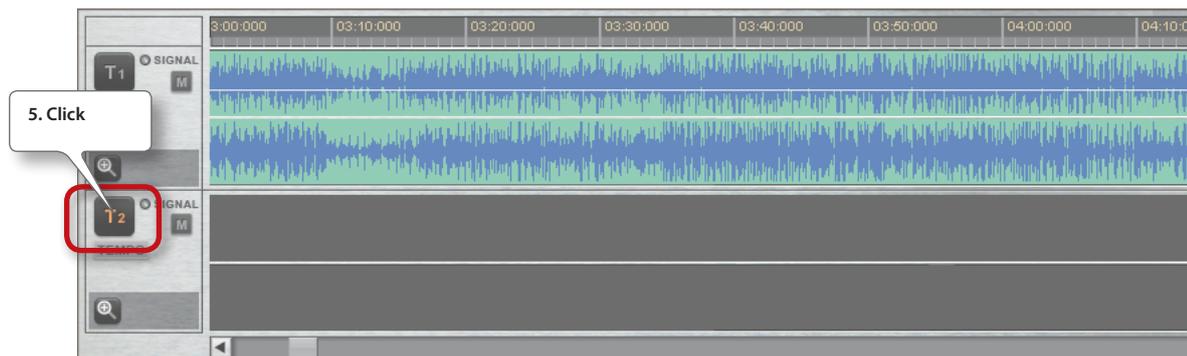
The audio data for the first song will be imported into T1.

**MEMO**

- If you place the mouse cursor on the audio clip, the mouse cursor will change to  or . In this state, you can drag the mouse (hold down the left mouse button and move it to left or right) to move the audio clip to left or right.
- An audio clip imported into the project can also be deleted from the project.
  1. Move the mouse cursor to the audio clip that you want to delete.
  2. Right-click, and then click "Delete."

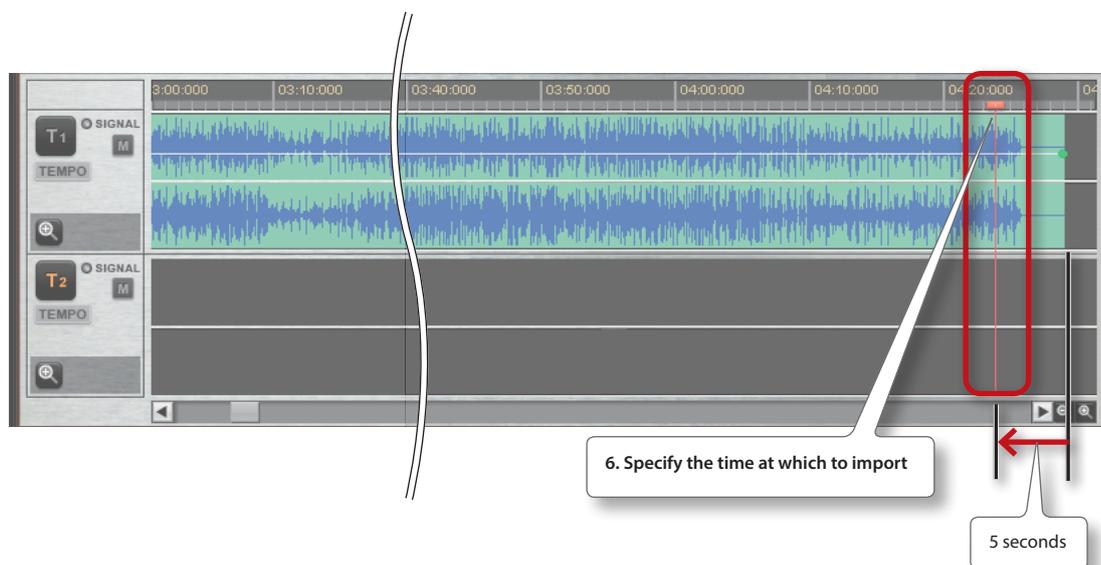
5. Click the [T2] button.

The audio data for the second song in the medley will be imported into T2.



6. Move the time location to the point at which you want to import the second song (the time at which you want the second song to start playing).

In this example, move the current time to a point five seconds before the T1 audio clip ends.



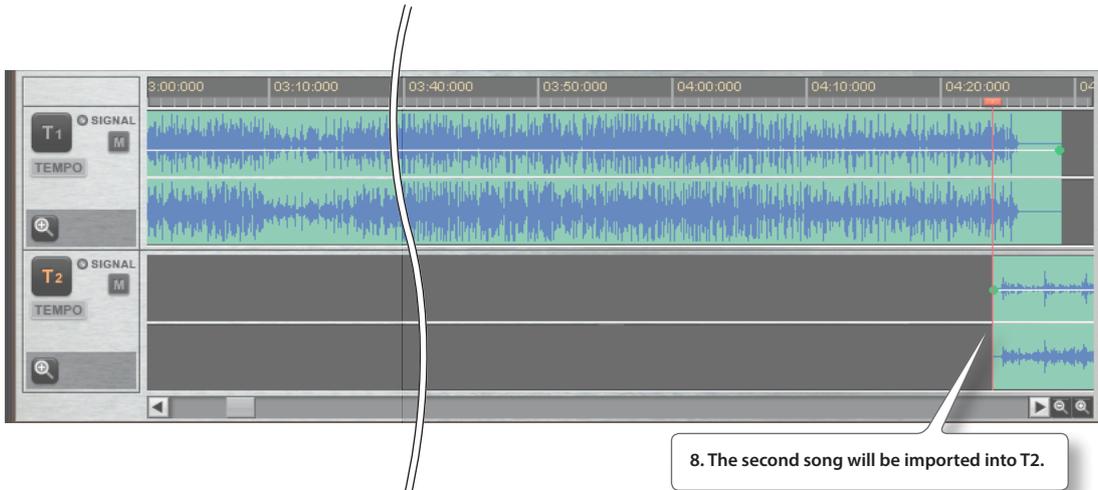
7. Click the [Import] button.

The "Import" window will appear.

## Creating a Medley

### 8. Select the audio data for the second song in the medley, and click the [OPEN] button.

The second song will be imported into T2.



If you want to connect additional songs, switch to the other track (T1 in this example), and repeat steps 5–7.

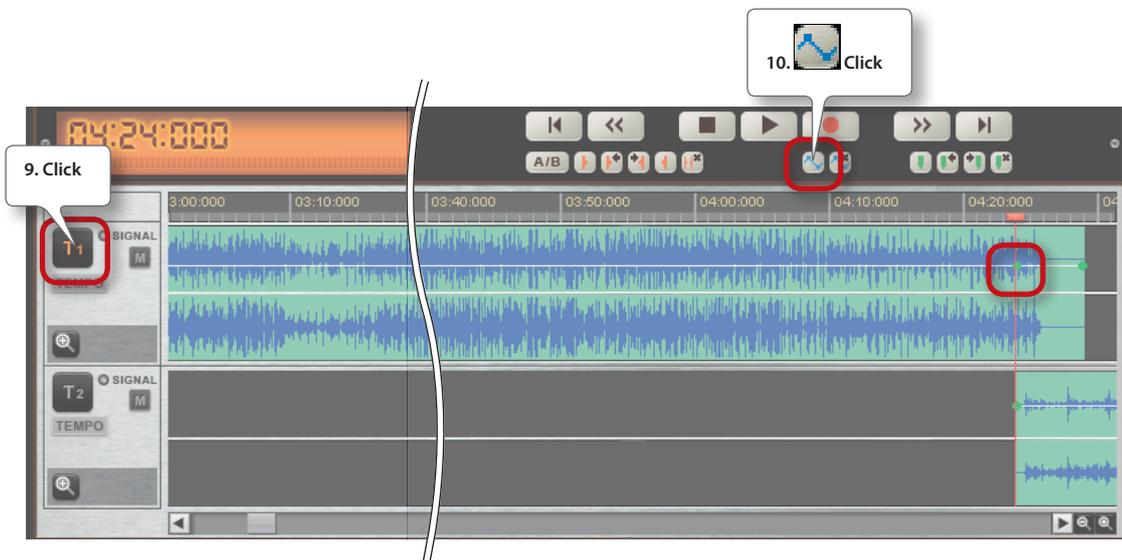
#### MEMO

- If you place the mouse cursor on the audio clip, the mouse cursor will change to  or . In this state, you can drag the mouse (hold down the left mouse button and move it to left or right) to move the audio clip to left or right.
- An audio clip imported into the project can also be deleted from the project.
  1. Move the mouse cursor to the audio clip that you want to delete.
  2. Right-click, and then click **“Delete.”**

### 9. Click the [T1] button.

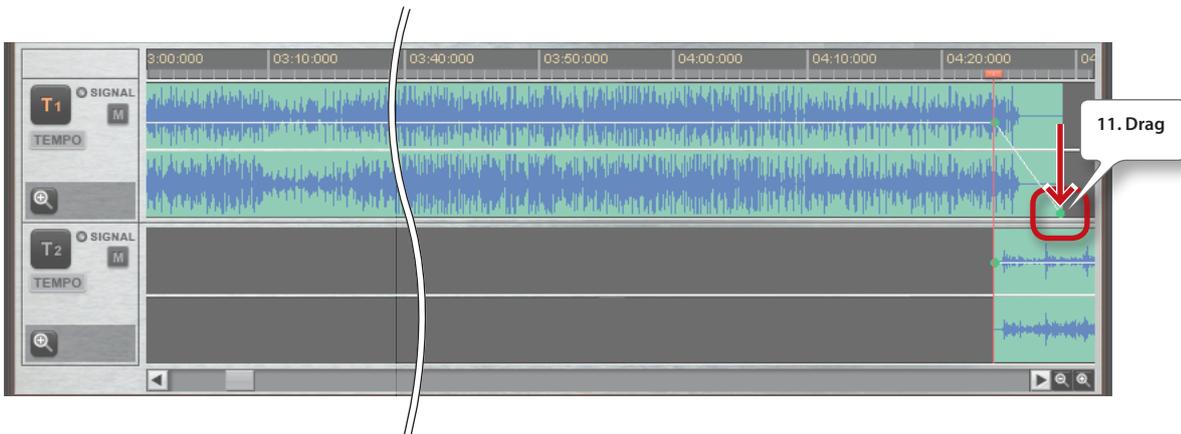
### 10. Click the level point button.

A level point will be added to the current time of T1.



**11. Drag the level point located at the end of the track down to the bottom edge of the track.**

The volume envelope will descend smoothly. Starting from the level point you added, the volume will gradually decrease until the end of the song.

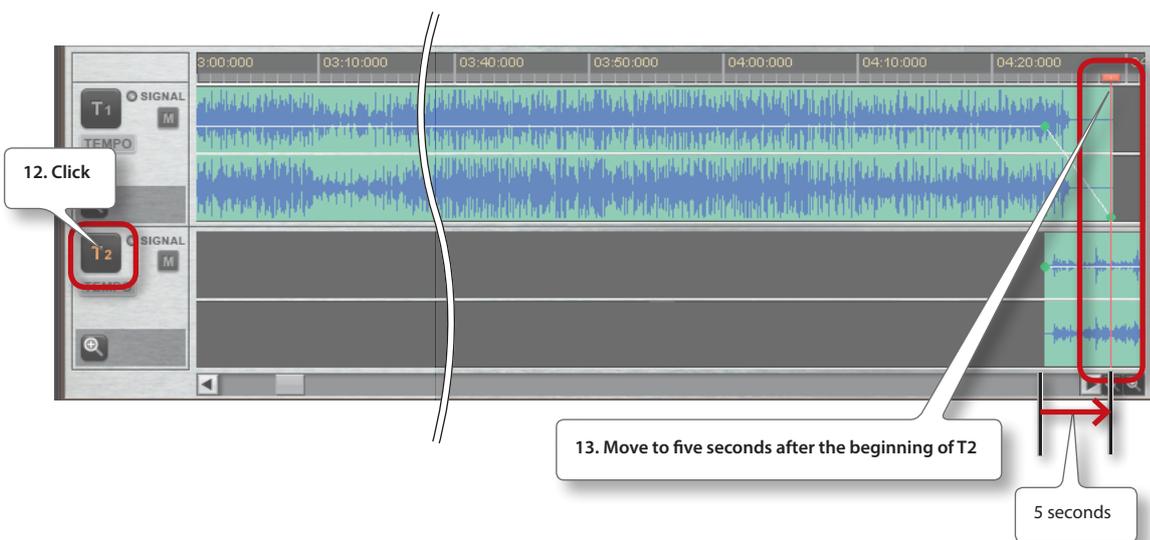


**MEMO**

The technique of gradually lowering the volume until the sound is inaudible is called a **“fade-out.”**

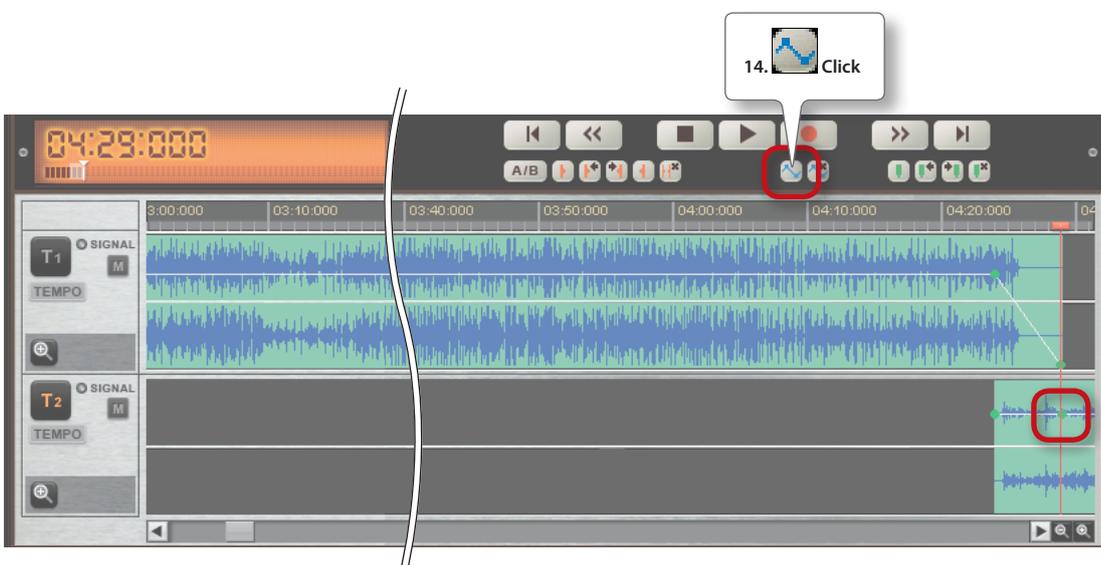
**12. Click the [T2] button.**

**13. Move the current time to a point five seconds after the beginning of the song you’re connecting.**



**14. Click the level point button.**

A level point will be added at the current time.



## Creating a Medley

### 15. Drag the level point located at the beginning of the track down to the bottom edge of the track.

The volume envelope will ascend smoothly. Starting from the beginning of the song and continuing to the level point you added, the volume will gradually increase.



#### MEMO

The technique of gradually increasing the volume is called a “fade-in.”

### 16. Play back the song and listen to the transition.

The two songs will be smoothly interchanged.

#### MEMO

In the example shown here, the volume envelope changes over a five-second duration (steps 11 and 15). You can lengthen this time to make the transition slower, or shorten it to make the transition faster. Change the length of the transition as appropriate for the songs you're connecting.

## Deleting a Level Point

Here's how to delete a level point that is no longer needed.

### 1. Click the level point that you want to delete.

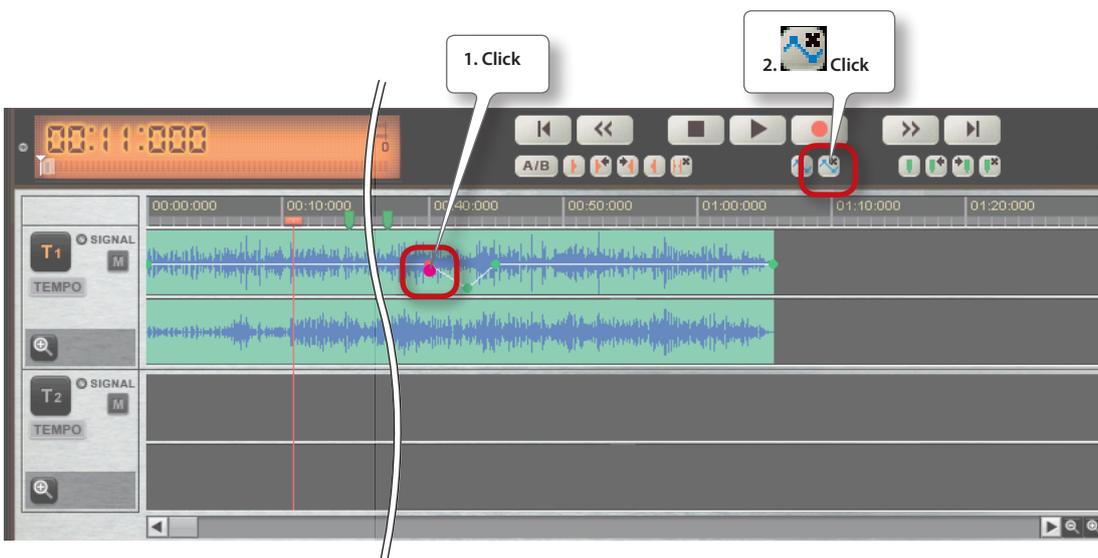
The level point you clicked will appear in red.

#### MEMO

The level points at the beginning and end of a clip cannot be deleted.

### 2. Click the delete level point button.

The level point will be deleted.

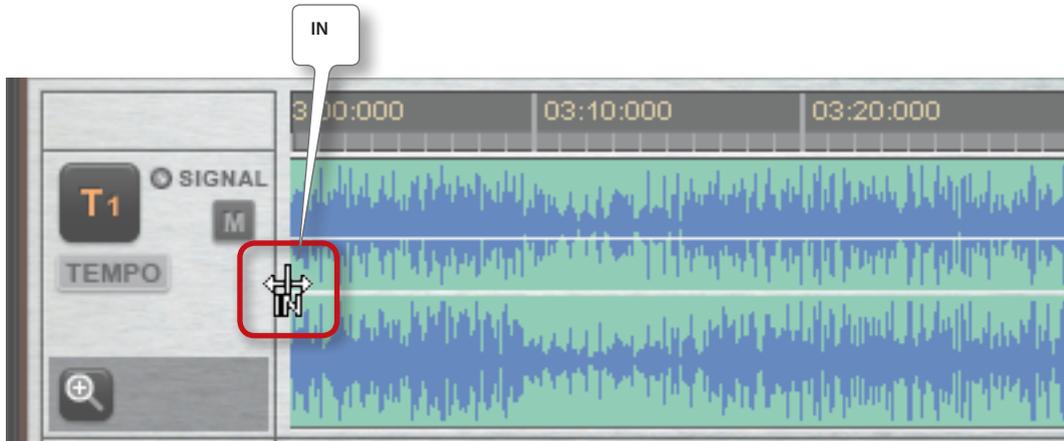


## Omitting Unwanted Portions at the Beginning or End of a Song

Here's how to hide an unwanted portion, such as silence at the beginning of a song, noise, etc., so that only the desired portion will play back.

1. Move the current time to the beginning of the song.
2. Move the mouse cursor to the beginning of the track.

The mouse cursor will change to **"IN."**



3. Drag to the position at which you want the sound to begin playing.

This specifies the playback start time so that the unwanted portion will not be played.

### MEMO

- If you move the mouse cursor to the end of the track, the indication will change to **"OUT."** An unwanted portion at the end of the track can be omitted in the same way.
- The data that is prevented from playing by the **"IN"** and **"OUT"** settings is not deleted. If you return the **"IN"** and **"OUT"** settings to their previous state, this data will play back as before.

## Matching a Song's Tempo

If you match the tempo of the songs you've connected, the transitions will be even smoother. In this example, we'll make the tempo of the T2 song match the tempo of the T1 song.

1. Detect the song's tempo as described in **"Detecting the Tempo of Audio Data"** (p. 34).
2. Calculate the amount by which the T2 tempo should be adjusted to make it match the T1 song's tempo.

Example: The detected tempo of the T1 song is 110, and the tempo of the T2 song is 100

$$110 \div 100 = 1.1 \text{ (110\%)}$$

Adjusting the T2 tempo by 1.1 times (110%) will make it match the T1 tempo.

3. Click the **[T2]** button.
4. Move the VariPhrase **[TEMPO]** slider to **"110%."**

The T2 song will play at 110% of its original speed.

### MEMO

- You can also move the **[TEMPO]** slider to change only the speed of the song without affecting its playback key.
- Changing the T1 tempo will move the **"marker"** or **"A/B repeat"** times you've assigned. However, changing the T2 tempo will not affect the **"marker"** or **"A/B repeat"** times.
- After matching the tempo, you can move the clip forward or backward to match the rhythm of the two songs so that the transition will be smooth.

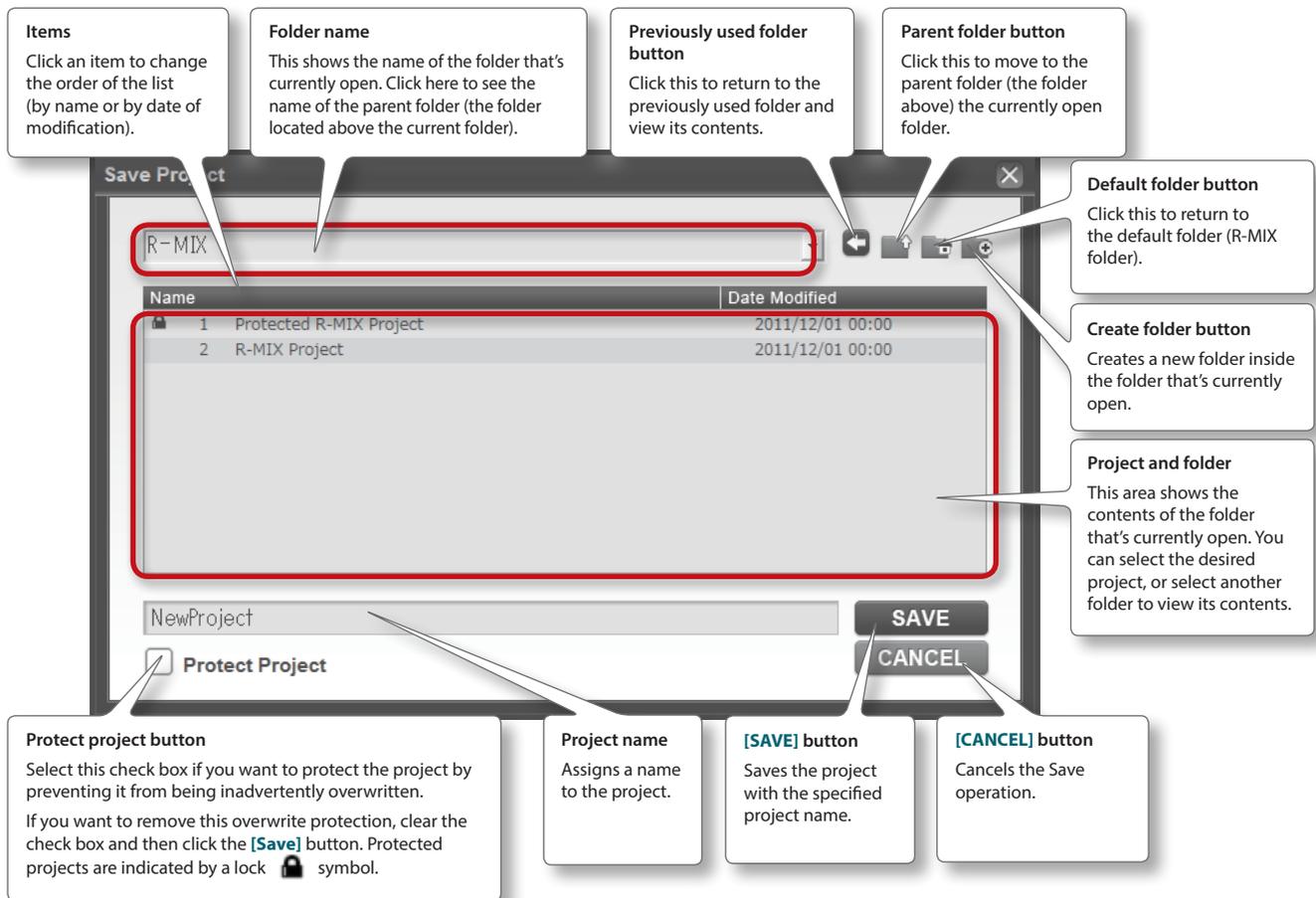
## Saving a Project

Here's how to save a song you've edited or a medley you've created.

Saving the project will save the results of your editing, so you'll be able to resume editing at a later time even after closing R-MIX.

### 1. Click the **[Save Project]** button.

The "Save Project" window will appear.



### 2. Select the save-destination folder.

#### MEMO

You can use the  button to create a new folder.

### 3. Assign a name to the project.

The name of the project that's currently open is automatically specified. If you want to save by overwriting the current project, proceed to the next step. If you want to save the project under a different name, edit the project name.

#### MEMO

The following characters cannot be used in a project name.

\\ : \* ? " < > |

### 4. Click the **[SAVE]** button.

The project will be saved in the specified folder.

## Saving a Project in WAV Format

Here's how to save the project's data as a WAV format file.  
WAV format files can be used by commercially available DAW software, or used to create an audio CD.

### MEMO

R-MIX does not include CD-burning functionality.

### 1. Click the **[Export]** button.

The **"Export"** window will appear.

The screenshot shows the 'Export' dialog box with the following components and callouts:

- Items:** Click an item to change the order of the list (by name or by date of modification).
- Folder name:** This shows the name of the folder that's currently open. Click here to see the name of the parent folder (the folder located above the current folder).
- Previously used folder button:** Click this to return to the previously used folder and view its contents.
- Parent folder button:** Click this to move to the parent folder (the folder above) the currently open folder.
- Default folder button:** Click this to return to the default folder (R-MIX folder).
- Create folder button:** Creates a new folder inside the folder that's currently open.
- Files and folders:** This area shows the contents of the folder that's currently open. You can select the desired file, or select another folder to view its contents.
- [Save to T1] button:** Mixes T1 and T2 with all their settings applied, and overwrites the result onto T1.
- [Save to T2] button:** Mixes T1 and T2 with all their settings applied, and overwrites the result onto T2.
- File name:** Assigns a name to the file that will be exported.
- [SAVE] button:** Exports the file with the specified file name.
- [CANCEL] button:** Cancels the export operation.

Name	Date Modified
1 Sample Create Minus One.wav	2011/12/01 00:00
2 Sample Noise Cancel AirCon.wav	2011/12/01 00:00
3 Sample Noise Cancel HissNoise.wav	2011/12/01 00:00
4 Sample Noise Cancel HumNoise.wav	2011/12/01 00:00
5 Sample Noise Cancel WindNoise.wav	2011/12/01 00:00
6 Sample Play by ear 1.wav	2011/12/01 00:00
7 Sample Play by ear 2.wav	2011/12/01 00:00

### 2. Select the folder to which the file is to be exported.

### MEMO

You can use the  button to create a new folder.

### 3. Assign a name for the WAV format file that will be exported.

### MEMO

The following characters cannot be used in a project name.

\ / : \* ? " < > |

### 4. Click the **[SAVE]** button.

The WAV file will be saved in the specified folder.

### MEMO

- The WAV file will be exported as the mix of the project's two tracks. At this time, all track settings (mute and volume envelope) as well as HARMONIC PLACEMENT, VariPhrase, EFFECT, NOISE CANCEL, and LEVEL will be applied when exporting.
- The format of the exported WAV file will be 44.1 kHz, 16-bit stereo.

## Exporting a Project to a Track

Here's how the result of the frame and effect settings you specify can be further processed using different frame and effect settings.

1. In the tracks, make the desired frame and effect settings.
2. Click the **[Export]** button.

The "Export" window will appear.

The screenshot shows the 'Export' window with the following callouts:

- Items:** Click an item to change the order of the list (by name or by date of modification).
- Folder name:** This shows the name of the folder that's currently open. Click here to see the name of the parent folder (the folder located above the current folder).
- Previously used folder button:** Click this to return to the previously used folder and view its contents.
- Parent folder button:** Click this to move to the parent folder (the folder above) the currently open folder.
- Default folder button:** Click this to return to the default folder (R-MIX folder).
- Create folder button:** Creates a new folder inside the folder that's currently open.
- Files and folders:** This area shows the contents of the folder that's currently open. You can select the desired file, or select another folder to view its contents.
- [Save to T1] button:** Mixes T1 and T2 with all their settings applied, and overwrites the result onto T1.
- [Save to T2] button:** Mixes T1 and T2 with all their settings applied, and overwrites the result onto T2.
- File name:** Assigns a name to the file that will be exported.
- [SAVE] button:** Exports the file with the specified file name.
- [CANCEL] button:** Cancels the export operation.

Name	Date Modified
1 Sample Create Minus One.wav	2011/12/01 00:00
2 Sample Noise Cancel AirCon.wav	2011/12/01 00:00
3 Sample Noise Cancel HissNoise.wav	2011/12/01 00:00
4 Sample Noise Cancel HumNoise.wav	2011/12/01 00:00
5 Sample Noise Cancel WindNoise.wav	2011/12/01 00:00
6 Sample Play by ear 1.wav	2011/12/01 00:00
7 Sample Play by ear 2.wav	2011/12/01 00:00

3. If you want to export the data reflecting all of the T1 and T2 settings to be exported to T1, click **[Save to T1]**. If you want to export this data to T2, click **[Save to T2]**.

**MEMO**

- When you save to T1 or T2, the save-destination track will be overwritten, and cannot be recovered. If you want to keep the results of your work up to this point, save the project before you execute this operation.
- The data saved to the track will be the mix of the project's two tracks, and will reflect the track settings (mute and volume envelope) as well as all settings such as HARMONIC PLACEMENT, VariPhrase, EFFECT, NOISE CANCEL, and LEVEL.

4. A screen will ask you to confirm the operation. To execute, click the **[Yes]** button.  
The data will be saved to the specified track.
5. In the track to which you saved the data, make new frame and effect settings as desired.
6. Repeat steps 2–5 as desired.

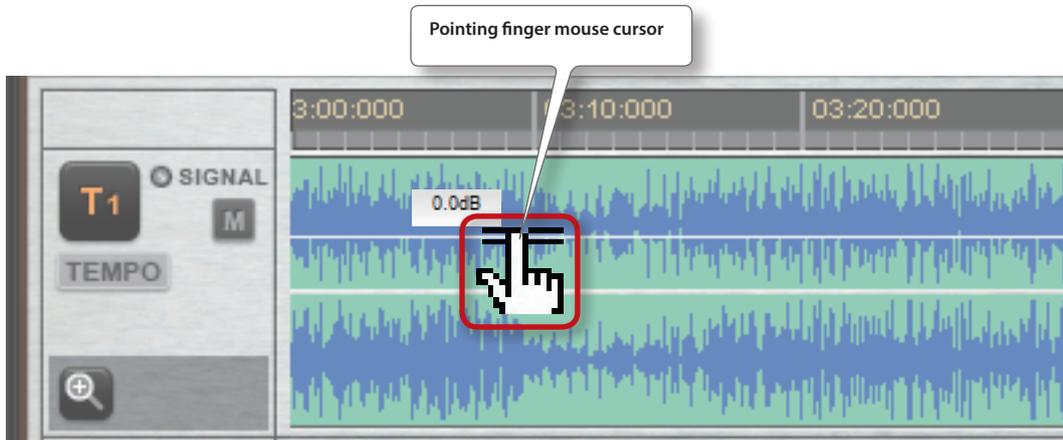
# Advanced Techniques

## Modifying the Volume of the Audio Data

You can use the volume envelope to vary the volume during playback.

### 1. Move the mouse cursor near the track volume envelope.

The mouse cursor will change to the shape of a pointing finger, and the value of the volume envelope at that location will be displayed.



### 2. Drag the volume envelope up or down.

Raising the volume envelope will increase the volume, and lowering the volume envelope will lower the volume.

#### MEMO

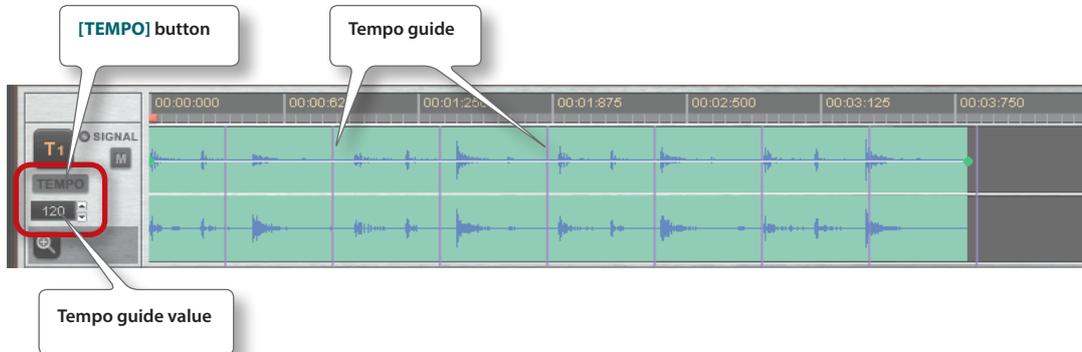
- The sound will be distorted if you raise the volume envelope excessively. (The level meter will light red.)
- The volume envelope is controlled separately from the volume adjusted by the **[LEVEL]** slider.

## Detecting the Tempo of Audio Data

Here's how to get a tempo guide to be overlaid on the waveform shown for the audio clip, and use it to align the song's tempo.

**1. Click the [TEMPO] button.**

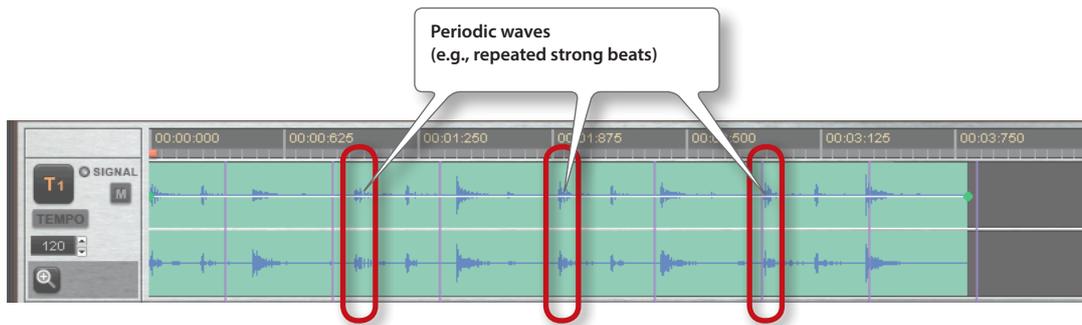
The tempo guide value and the tempo guide will be displayed.



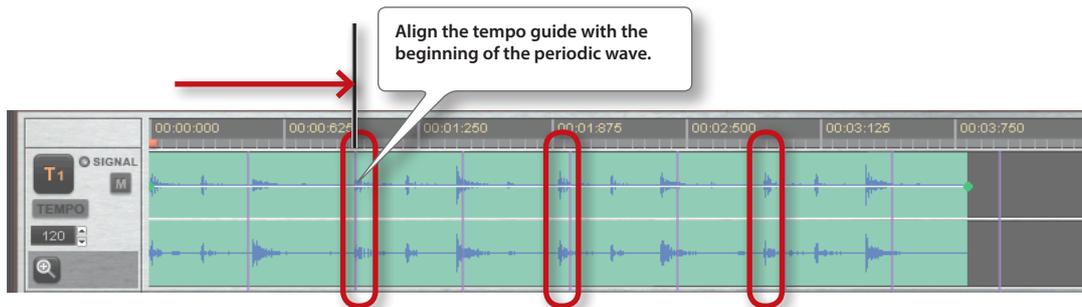
**2. Find periodically recurring waves in the waveform.**

**MEMO**

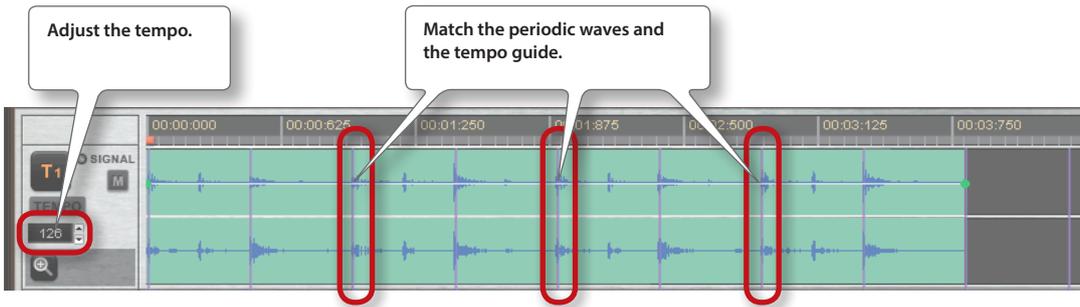
For some songs, it might be difficult to detect periodic waves.



**3. Grab the tempo guide and drag it to the left or right to align it with the beginning of a periodic wave.**



4. Set the tempo guide value so that the spacing of the tempo guide matches the periodic waves.



The tempo guide value that makes the periodic waves match the spacing of the tempo guide is the tempo of that song. In the example of this song, the tempo is 126.

**MEMO**

- The spacing of the tempo guide will be changed according to how you moved the tempo guide in step 3.
- The tempo guide value can be edited by clicking the up/down buttons, or by directly entering a numerical value.

\* The following operations cannot be performed while the tempo guide is displayed.

- Moving the audio clip
- Changing the audio clip's start point or end point
- Changing the volume envelope
- Adding, deleting, or moving a level point

## Assigning Markers

Here's how to assign markers within a project and use them to indicate a variety of things, such as where phrases change.

1. Move to the time location at which you want to assign a marker.
2. Click  (p. 8).  
A marker will be added.
3. If you want to assign markers at other time locations, repeat steps 1–2.

**MEMO**

- Up to 20 markers can be assigned in a project.
- You can't assign multiple markers at the same time location.
- Changing the T1 tempo will move the time locations at which "markers" are assigned. However, changing the T2 tempo will not affect "marker" time locations.

## Jumping to a Marker

Here's how to make the current time jump to a marker location. If you've assigned markers to points where phrases change, it will be easier to find the desired points in the song.

1. Click  to move to the marker that precedes the current time, or click  to move to the marker that follows the current time (p. 8).
2. To continue moving to the preceding or following marker, repeat step 1.

## Deleting a Marker

Here's how to delete an unwanted marker.

1. Click  or  to move the current time to the marker that you want to delete.
2. Click  (p. 8).  
The marker will be deleted.

# Using Markers to Automatically Switch Effects

You can store a variety of settings in a marker so that these settings will be automatically called up when playback reaches that marker. This allows you to accurately switch complex parameter settings, or to switch numerous settings in a short time.

## Parameters that are stored in a marker

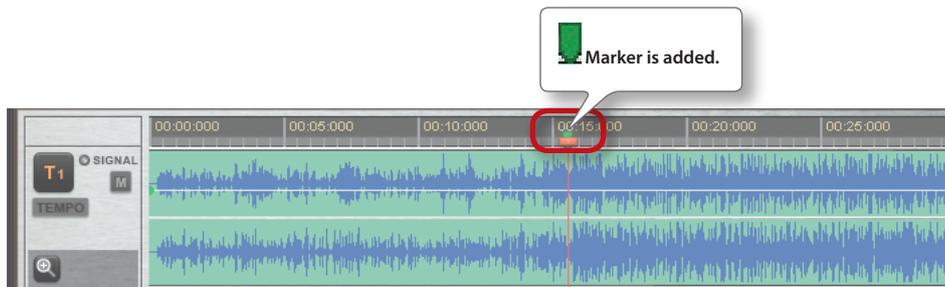
The following parameters can be stored in a marker.

- Shape, size, and position of the HARMONIC PLACEMENT frame
- Position of the INSIDE, OUTSIDE, EFFECT, NOISE CANCEL, and LEVEL sliders
- Position of the PITCH, FINE, and TEMPO sliders
- TYPE setting for EFFECT and NOISE CANCEL

## Storing Parameters in a Marker

1. Click the track button of the track for which you want to store settings.
2. Adjust the slider and frame settings as desired.
3. Move the current time location to the point at which you want to switch settings, and add a marker.

The marker will be added to the time ruler.



### MEMO

- Up to 20 markers can be assigned in a project.
- You can't assign multiple markers at the same time location.
- Changing the T1 tempo will move the time locations at which "markers" are assigned. However, changing the T2 tempo will not affect "marker" time locations.

4. Right-click the added marker, and then click [Set].

The current settings will be stored in the marker.

At this time, the marker will show a track number to indicate the track whose settings it is storing.



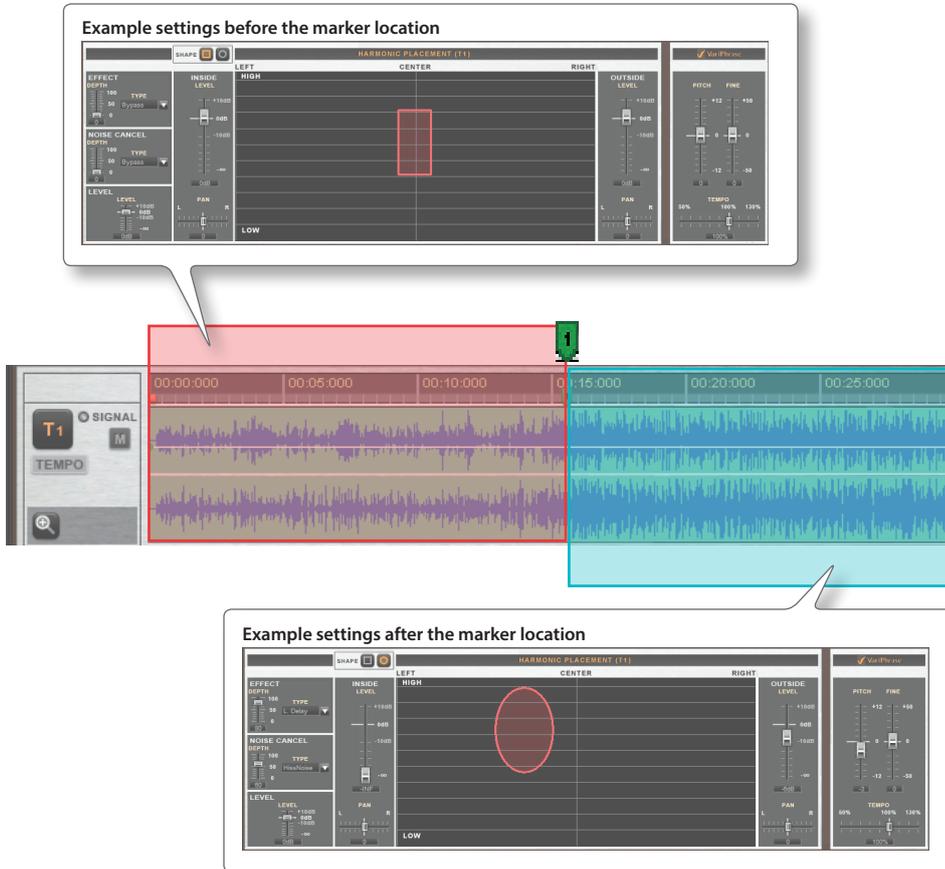
5. If you want settings to change for another track or at another time location, repeat steps 1–4.

## Calling Up Parameters Automatically

Here's how the stored parameters can be called up automatically when the project playback reaches the marker location.

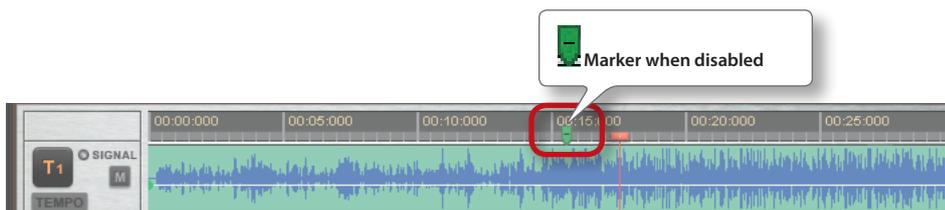
### 1. Play back the project.

When the current time reaches the marker time location, the stored parameters will be called up, changing the settings.



**MEMO**

If you manually operate parameters such as the sliders or frame, marker-based retrieval of parameters for the selected track will be temporarily disabled.



## Enabling Parameter Call Up

Here's how to enable the call up of parameters after it has been disabled, so that the stored parameters can be called up.

1. Select the track that contains the markers you want to enable.
2. Right-click the marker.
3. Click **[Enable]**.

Parameter call up will be enabled, and the track number will reappear, indicating the track whose settings the marker contains.

**MEMO**

- If you want to manually disable parameter call up, right-click any one of the markers, and then click **[Disable]**.
- Disabling or enabling the parameter call-up function will apply to all parameters.

### Deleting Parameters Stored in a Marker

Here's how to delete the parameters stored in a marker. When you delete the parameters from a marker, it will become a conventional marker that will not call up parameters.

1. Select the track that contains the marker you want to delete.
2. Right-click the marker.
3. Click **[Delete]**.

The parameters stored in the marker will be deleted.

#### MEMO

If you want to delete the entire marker, refer to **"Deleting a Marker"** (p. 35).

### Backing Up a Project to USB Flash Drive

A project that's saved on your computer can be backed up (copied) to external storage, such as commercially available USB flash drive. This provides a safeguard against accidental deletion of the project, and allows you to work with the project on another computer.

1. Copy the folder of the project you want to back up to commercially available USB flash drive or to another computer.  
For information about the default location where projects are saved, refer to **"Where Projects Are Stored"** (p. 41).

#### MEMO

- You can delete a project by using your computer to delete the project folder.  
A deleted project cannot be opened from the **"Open Recent Projects"** window (an error message will appear).

### Changing the Output Destination of the Opening Audio

When R-MIX starts up, an opening screen will appear.  
You can change the output destination of the audio that is heard in this opening screen.

1. Click the R-MIX **[Setup]** button.  
The **"Setup"** window will appear.
2. Choose the audio output destination in **"Preview Device."**
3. Click the **[OK]** button.

#### MEMO

This will also change the device that plays audio when you click the **[Preview]** button in the **"Import"** screen.

## Using R-MIX to Edit a Song from CD

In order to use R-MIX to edit a song from a CD, you'll need to use software (such as Windows Media Player or iTunes) that can rip (copy) the song from CD and save it on your computer in a format that R-MIX can use.

For details on the ripping procedure, refer to the manual or online help for the software you're using.

1. Insert the CD into your computer.
2. Start up the software (such as Windows Media Player or iTunes) that you'll be using to rip the CD.
3. Make settings in your software so that the song will be saved in a format that R-MIX supports.

Formats supported by R-MIX

Item	Format
Format	WAV
Sampling Rates	44.1, 48 kHz
Bit Rate	16-bit
Channels	Monaural, Stereo

4. Make a note of the location (folder) in which the song will be saved.
5. Begin ripping.
6. When ripping is completed, close your software and remove the CD from your computer.
7. Start up R-MIX, and click the **[New Project]** button.
8. The **"Import"** screen will appear. Navigate to the location (folder) you noted in step 4.
9. Select the desired song, and click the **[Open]** button.

## Track 2 Limitations

The current time, markers, A/B repeat position are linked to the tempo set by Track 1's **[TEMPO]** slider. Therefore, the following limitations exist for Track 2.

- When you change the tempo for Track 1 or Track 2 during playback, sometimes the display of the current time and Track 2's sound will become unsynchronized. In this case, temporarily stop playback to synchronize the current time and sound.
- When you change the tempo for Track 1 or Track 2 during playback, sometimes the A/B repeat interval and Track 2's sound become unsynchronized. In this case, temporarily stop playback to synchronize the A/B repeat interval and sound.
- Even if you change Track 2's tempo while stopped, the current time will not be linked.

## Main Error Messages

Message	Explanation
"Audio Device" was not found.	Either "Audio Device" is not connected or is unusable. Do not disconnect "Audio Device," allow your computer to enter sleep mode, or shut down while R-MIX is running.
Audio file not found.	The audio file needed to load the project was not found. This project is unusable. Load a project that you backed up.
Can't assign REPEAT A later than REPEAT B.	You cannot assign REPEAT A at a time later than where REPEAT B is assigned. Either assign REPEAT A before REPEAT B, or delete REPEAT B.
Can't assign REPEAT B earlier than REPEAT A.	You cannot assign REPEAT B at a time earlier than where REPEAT A is assigned. Assign REPEAT B later than REPEAT A.
Can't assign REPEAT B this close to REPEAT A.	You cannot assign REPEAT A and REPEAT B to the same time location, or within approximately 0.1 seconds of each other. Move to a different time location, and then assign REPEAT A or REPEAT B.
Can't assign REPEAT A this close to REPEAT B.	
Can't assign to the same time location as another marker.	You cannot assign a marker at the same time location. Move to a different time location, and then assign the marker (p. 8, p. 35).
Can't assign to the same time location as an existing level point.	You cannot add a level point at the same time location. Move to a different time location, and then add a level point.
Can't execute during playback or recording.	Other operations cannot be executed during playback or recording. Stop playback or recording.
Can't import audio file. (Longer than 60 minutes.)	Audio files longer than 60 minutes cannot be imported.
Can't import because audio files would overlap.	Another audio file cannot be imported into a time location at which an audio file already exists. Move the current time location to a place where no audio file exists, and then import.
Can't record because audio files would overlap.	You cannot record at a time location where an audio file already exists. Move the current time to a location where no audio file exists, and then record.
Change the "Audio Device" in setup.	The audio device used with R-MIX the previous time cannot be found, or a different audio device was found. Redo the audio device settings in "Setup."
Could not load the file.	The file format or attributes may be incorrect, or the file may be damaged. Check the file format, or don't use that file.
Could not load the file. Insufficient memory area available for R-MIX.	The file could not be loaded because there is not enough memory available for R-MIX to use. You may be able to load the file after restarting R-MIX, or after using other audio editing software to edit the data.
Failed to save the file. Unable to write.	You do not have the privileges required to save the file. Either select a different folder, or use another file name.
<(File name)> was not found. The project cannot be saved in this state.	A file required by the project was not found. The project currently in use by R-MIX or a file within the project may have been moved. Do not move these files.
Maximum of 20 markers can be assigned.	Before you can add another marker, you must delete unneeded markers.
No audio clip to export.	No audio file could be written because not even one audio clip exists. There must be at least one audio clip in order for an audio file to be written.
Project not found.	Either the project was moved or deleted, or the data is damaged. Either load a different project, or load a backed-up project.
Recording is not possible because REPEAT A/B is enabled.	You can't record while REPEAT A/B is on. Clear the REPEAT A/B setting (p. 8, p. 20).
Recording stopped because the maximum recording time was reached.	Recording stopped because you reached the maximum time that R-MIX can record. The R-MIX is capable of recording on one track for a maximum of 60 minutes when TEMPO is at 100%, and the total time for the entire project is 100 minutes for tracks 1 and 2 combined. However, these times may be shorter depending on the amount of memory available for R-MIX to use.
Set the audio device's sampling frequency to 44.1 kHz or 48 kHz.	R-MIX does not support the sampling frequency of the audio device you're using. Refer to the owner's manual of your audio device, and change the sampling frequency to 44.1 kHz or 48 kHz.
The file is damaged, or is in an unsupported file.	Select a file that is supported by R-MIX (p. 16, p. 18, p. 21, p. 24).
The following characters cannot be used in a file name: \ / : * ? " < >   The following characters cannot be used in a folder name: \ / : * ? " < >	These characters cannot be used in a file name or folder name.
The recording could not be completed. The recorded audio file has been saved in <(file name)>.	Recording stopped because of a problem such as exceeding the maximum recording time. The data recorded up to this point has been saved in the file of the name shown. It may be possible to load the saved data after R-MIX is restarted, or after it has been edited by other audio editing software.
The tempo cannot be lowered any further because times would exceed 60 minutes.	The tempo cannot be slowed down beyond a point that would make the "audio clip," "marker," point "A," or point "B" times exceed 60 minutes (p. 7).

## Data Storage Locations

### Where Projects Are Stored

With the default settings, the projects created by R-MIX are stored in the following location.

OS	Storage location
Windows 7 Windows Vista	C:\Users\ <i>(your account name)</i> \Documents\Roland\R-MIX\
Windows XP	C:\Documents and Settings\ <i>(your account name)</i> \My Documents\Roland\R-MIX\

The folder for each project is created inside the R-MIX folder.  
The folder name for each project is “**project name.rxj**”.

### Where Sample Song Data Is Stored

When you install R-MIX, sample song data is stored in the following folder.

OS	Storage location
Windows 7 Windows Vista	C:\Users\ <i>(your account name)</i> \Music\Roland\R-MIX\
Windows XP	C:\Documents and Settings\ <i>(your account name)</i> \My Documents\My Music\Roland\R-MIX\

If you accidentally delete the above folders or files, a duplicate of this data is also saved in the following location. You can copy this if necessary.

OS	Storage location
Windows 7 Windows Vista Windows XP	C:\Program Files\Roland\R-MIX\Sample\Music\ (64-bit Windows Users) C:\Program Files (x86)\Roland\R-MIX\Sample\Music\ (32-bit Windows Users)

## Main Specifications

Tracks	Stereo track x 2
Simultaneously recordable tracks	Stereo track x 1
Effects	Compressor, Delay, Reverb
Importable File Formats	WAV (44.1 kHz or 48 kHz, 16-bit, stereo or monaural)
Export File Format	WAV (44.1 kHz, 16-bit, stereo)
Accessories	R-MIX Software CD-ROM R-MIX Quick Manual LICENSE AGREEMENT

In the interest of product improvement, the specifications and/or contents of this package are subject to change without prior notice.

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