

AudioGate 3





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Introduction

AudioGate 3 High Definition Audio Player Software is a high function audio player and file conversion application that supports 1-bit audio.

Using AudioGate 3, audio files that have differing formats in the computer can be controlled and played, and the playback functionality provides direct playback of 1-bit audio files by using certified audio devices such as the Korg DS-DAC series.

In addition, using AudioGate 3, MR projects or other various audio files recorded by the Korg MR series can be converted to your desired format to export, and you can also create audio CDs or DSD discs. Editing procedures such as cut, fade, and normalize are also supported.

In AudioGate 3, each item of audio data in the songlist is called a song.

Supported formats

Supported file formats

AudioGate is able to import/export (input/output) audio files of the following formats.

	File format	Windows		Mac		Number of	Sample rate	Bit depth
	(extension) In		Out	In	Out	channels		
PCM	WAV (.wav)	•	•	•	•		44.1 kHz, 48 kHz	16 bit, 24 bit
	BWF (.wav)	•	•	•	•	1ch	88.2 kHz, 96 kHz	32 bit(float)
	AIFF (.aif/.aiff)	•	•	•	•	2ch	176.4 kHz, 192 kHz	16 bit, 24 bit
1-bit	DSDIFF (.dff)	•	•	•	•		2.8224 MHz	
	DSF (.dsf)	•	•	•	•	1ch	5.6448 MHz	1-bit
	WSD (.wsd)	•	•	•	•	2ch		
Irreversible	MP3 (.mp3)	•	O*3	•			44.1 kHz, 48 kHz	_
compression	AAC (.m4a)	O*1		•	•	1ch		
	WMA (.wma)	•	•	O*2		2ch		
	WMA Professional (.wma)	•	•	O*2		2ch	44.1 kHz, 48 kHz 88.2 kHz, 96 kHz	
Lossless compression	WMA Lossless (.wma)	•	•	O*2		2ch	44.1 kHz, 48 kHz 88.2 kHz, 96 kHz	16 bit (only 44.1 kHz), 24 bit
	Apple Lossless [ALAC] (.m4a)	O*1		•	•	1ch 2ch	44.1 kHz, 48 kHz 88.2 kHz, 96 kHz	16 bit, 24 bit
	FLAC (.flac)	•	•	•	•		176.4 kHz, 192 kHz	

^{*1} Supported if QuickTime7 is installed

^{*2} Supported if Flip4Mac WMV is installed. http://www.microsoft.com/windows/windowsmedia/player/wmcomponents.mspx

^{*3} Supported if Windows Media Player 10 or later is installed

[⚠] In some cases, it may not be possible to correctly read files that were not created by a Korg MR series unit or by AudioGate.

Audio files protected by DRM (Digital Rights Management) cannot be loaded.

Supported disc formats

AudioGate 3 supports reading and writing of audio CDs and DSD discs. AudioGate 3 can create discs in the following formats.

Disc format		Audio CD (CD-DA)	DSD discs	
Disc media		CD-R, CD-RW	DVD-R, DVD-RW DVD+R, DVD+RW	
Approximate recording time		Approx. 74 minutes (when using 700 MB media)	Approx. 100 minutes (when using 4.7 GB media)	
Number of albums that can be recorded on one disc		1	1	
Maximum number of tracks that can be recorded on one disc		99	99	
Recording time for one track	Minimum	4 seconds	0 seconds	
	Maximum	Approx. 74 minutes	Approx. 100 minutes (4 GB)	
Sampling frequency		44.1 kHz	2.8224 MHz	
Bit depth		16	1	
Number of channels		2	2	
Recordable metadata		CD-TEXT format (alphanumeric only) • Title • Artist name * Not recordable for some drives	ID3v2.3 format Title Title (Read) Artist name Artist name (Read) Album name Album name (Read) Album Artist name Album Artist name Album Artist name (Read) Track No. Disc No. Genre Date and time of recording Attached picture	

Writing to dual-layer DVD media is not supported.

▲ A writable CD/DVD drive is required in order to create audio CDs or DSD discs.

DSD What are DSD discs?

DSD discs are a new disc format that was created as a way for an individual to record and playback DSD format material. This means that the methods used to create audio discs on CD-R or CD-RW media are now also available for the world of DSD audio. DSD discs can be played on compatible players and enjoyed in their original high quality.

- DSD disc is a disc format that is different than the Super Audio CD. Not all Super Audio CD players will necessarily be able to play back a DSD disc.
- * DSD discs (1-bit; 2.8 MHz) created by AudioGate 3 can be played back on players such as the Sony SCD-XA5400ES Super Audio CD/CD player, the Sony SCD-XE800 Super Audio CD/CD player or PlayStation®3 from Sony Computer Entertainment Inc. DSD discs to be played on the Sony SCD-XA5400ES or the Sony SCD-XE800 require the following conditions. AudioGate meets these conditions. (As of August 21st, 2010, confirmed by KORG Inc.)
 - Disc: DVD-R, DVD-RW, DVD+R, and DVD-RW, that are compatible with DVD-ROM specifications

- File extension: dsf

Folder type: DSD_DISC folderMaximum size of a file: up to 4GB

- Channel: 2-channel

- Maximum number of playable files: up to 150 files per folder

- Maximum number of playable folders: up to 200 folders per disc

- Maximum number of playable layers: up to 8th layer

- Sampling frequency: 2.8224 MHz

* The availability of these products may vary by country.

* PlayStation is a registered trademark of Sony Computer Entertainment Inc.

Japan: http://www.jp.playstation.com/

US: http://www.us.playstation.com/

Europe: http://uk.playstation.com/country-selector/

Please check following URL for other countries.

http://www.playstation.com/country-selector/

* "DSD Disc Format" is a trademark of Sony Corporation.

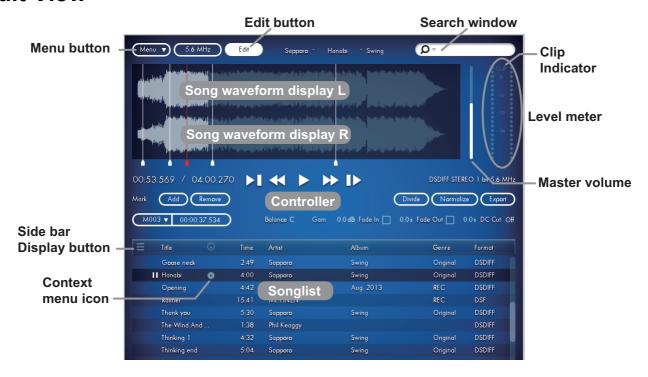
Items on the screen

Most of AudioGate 3 is used in the viewer. This viewer size can be changed freely. In addition, the viewer will be changed between play screens (Player View) and editing screen (Edit View) each time you click the edit button. By clicking the menu button to select [View] - [Switch View], you can also change the screen.

Player View



Edit View



About the songlist

The info viewer will display information about the songs (audio files) registered in the library (see page 8) or the play list (see page 11) in the songlist. When switching the display of the songlist, click the side bar display button to select an item.

About the master volume

AudioGate 3 can adjust the level to send signals to audio devices such as an audio player separately from the gain. You can drag the master volume upward/downward to make adjustments to the level.

About the level meter and clip indicator

During song playback and export, AudioGate 3's level meter shows the peak values of the output data following sample rate conversion. In addition, the clip indicator is displayed in the editing screen only.

When playing PCM data, exporting a PCM file, or creating an audio CD, the units are dBFS relative to full-scale linear PCM data (0 dB).

Except for when exporting a 32-bit (float) file, the clip indicator will light up when there is a signal that would exceed 0 dBFS, and the signal will be clipped to 0 dBFS and exported.

When playing or exporting a 1-bit audio file and when creating a DSD disc, the units are dB-SACD, with the theoretical limit of Delta-Sigma conversion defined as +6dB-SACD.

The conversion algorithm of most PCM \leftrightarrow DSD converters (including AudioGate 3) is designed so that by default, 0 dBFS = 0 dB-SACD.

▲ During 1-bit audio output, the clip indicator will also light up when a clip in Delta-Sigma conversion is detected.

Changing the peak hold time

AudioGate 3's level meter and clip indicator provide a peak hold function. Here's how to change the length of time that these indications are held.

- 1. Right-click (Mac: Control+click) the level meter.
- 2. Choose [Peak Hold Duration of Level meter] or [Hold Duration of Clip Indicator] and select the desired time from the options shown.

By clicking the menu button to select [View] - [Peak Hold Duration of Level meter] or [Hold Duration of Clip Indicator], you can also change the time.



Clearing the peak hold indication

When the level meter is in use, clicking it will clear the hold indicators without waiting for the specified hold times.

About the Menu / help

When you click the menu button and select [Help], you can get the latest information about AudioGate 3.

Registration to library and editing

By registering MR projects or audio files to the library of AudioGate 3 on your computer, audio files can be played back or, converted to another format to export.

In AudioGate 3, each item of audio data in the songlist is called a song.

- When registering songs to the AudioGate 3 library, a copy of the file will not be created but the file information will still be registered to the library.
- When a lot of songs are registered at a time, it will take time to display them in the songlist. Also the song waveform display requires time to be analyzed during registration, so the song waveform display remains in a bar state for a while.

Song Registration

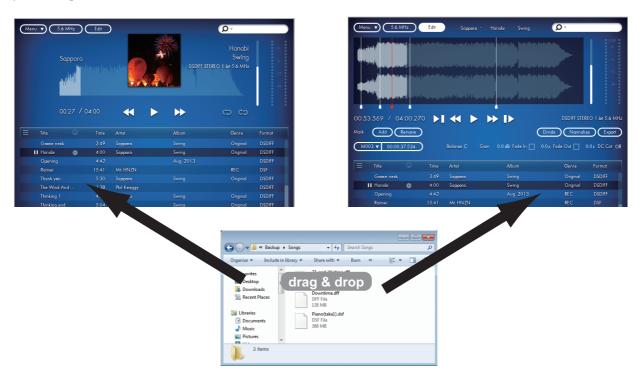
Registering an MR project

You can register a project that was recorded on a Korg MR series unit.

Although it is possible to register only an audio file recorded on your MR series registering an MR project will allow the marks that were added during recording to be imported. Even if the audio files have been divided, they will automatically be joined so that they can be handled as a single song.

- Drag the MR project (the entire MR project folder) that you want to register into the songlist.
 - Alternatively, you can click the menu button and select the .prj file (located in the folder) by selecting the [File] [Add Audio Files...].
 - When the songlist of the library is displayed, the MR project is registered to the library as songs. When the selected playlist is displayed, it is registered to the playlist as well as the library.
- Simply registering an item into an AudioGate 3 library does not back up the file.

 Before you proceed, we recommend that projects recorded on your MR series unit be copied to the hard disk of your computer.



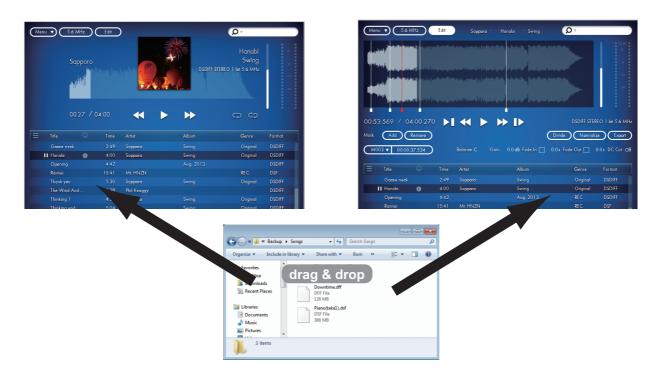
Audio File Registration

Audio files can be registered as songs. Any file format which AudioGate supports can be imported and registered as a song. (see page 3)

- You cannot register a song that is already registered.
- Drag the audio file that you want to register into the songlist.

 Alternatively, you can do the same thing by clicking the menu button and selecting the [File] [Add Audio Files...].

When the songlist of the library is displayed, audio files are registered to the library as songs. When the songlist of the selected playlist is displayed, songs are registered to the playlist as well as the library.



iTunes Song Registration

iTunes songs can be registered into the library.

- 1. Click the menu button to select [File] [Add iTunes songs].
- 2. The iTunes song is now registered into the library.
- Songs recently added to the iTunes library will only be registered into the library when they are selected [Add iTunes songs]. Duplicate registration of songs is not allowed.



Select a song

Click the song on the songlist.

To select multiple songs, hold down the Ctrl key (Mac: Command key) and click.

The selected song will be displayed in bold.



Remove a song

Move the mouse pointer onto the targeted song, and click the context menu icon displayed on the right side of the Title to select the [Remove Songs] option.

Alternatively, you can select [File] - [Remove Songs] by clicking the menu button.

- You can also select the [Remove Songs] option by right-clicking on the selection (Windows) or control-clicking (Mac).
- Removing songs deletes the songs from the playlist. In addition, removing the songs from the playlist does not delete the songs from the library.



Rearrange the songs (sort)

In the songlist, you can sort the songs by clicking on Title, Time, Artist, Album, Genre or Format from the section headings at the top of the list. The songs are sorted in alphabetical ascending order or descending order each time you click the button.



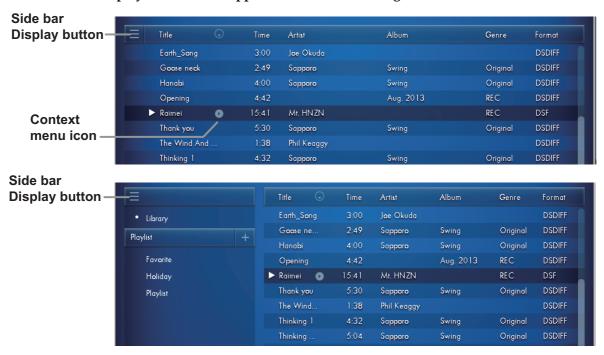
Creating a Playlist

You can create an original Playlist by collecting favorite or themed songs from your AudioGate 3 library. In this Playlist, you can add, select, remove and sort the songs as well as in the library.

- When you register songs that are not registered in the library into the Playlist, the songs will be automatically registered into the library as well as the Playlist.
- When song information is updated for a song that's in a playlist, the song information will also be updated in the library.

Creating a new Playlist

1. Click the side bar display button at the upper left corner of the songlist.



2. A Playlist bar will appear. Click the + button in the right corner.

The playlist named "Playlist" will appear. If you do not change the name, new playlist names after the second instance will be "Playlist n (n: auto increment start at 1)".

- 3. To change the playlist name, click on the name section.
- 4. Click the Library on the playlist bar to display the songs registered in the library.
- 5. Select songs in the Library to register them into the playlist displayed in the side bar. To select multiple songs, hold down the Ctrl key (Mac: Command key) and click. Move the mouse pointer onto the selecting song, and click the context menu icon displayed on the right side of the Title to select the [Add to Playlist] function to register the song.
 - You can also select the [Add to Playlist] function to register the song by right-clicking (Windows) or control-clicking (Mac).
- 6. When you select the playlist displayed under the playlist bar, the registered songs will appear in the Songlist.

Creating a new Playlist by selecting Songs

Move the mouse pointer onto the targeted song in the Songlist, and click the context menu icon displayed on the right side of the Title to select the [New Playlist from Selection] function.

The playlist will be named after the selected song.

You can also select and register the [New Playlist from Selection] by right-clicking (Windows) or control-clicking (Mac).



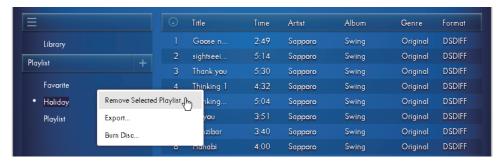
Rearrange the songs in a Playlist (sort)

Songs in a playlist can be sorted (see page 10) as well as the Songlist of the library. In addition, selecting the items of the Songlist No. enables dragging the songs and sorting the songs to a desired order.

Removing and Exporting Playlist and Writing to a Disc

Select the Playlist to remove by right-clicking (control-clicking for the Mac. device) and select Exporting (see page 31) and Creating Disc (see page 38).

Removing the Playlist deletes the registered information of the Song in the Playlist only. The songs of the library and other Playlists are not deleted.



Song Playback

In AudioGate 3, you can playback the Songs registered in the Songlist. This provides a useful way to playback the songs in each format including 1-bit audio files with uniform sampling frequency, to check the file contents or to set an editing point (see page 29).

- The song playback functionality that's provided by AudioGate 3 is a convenient feature that utilizes a high-speed filter, and direct output of 1-bit DSD. In order to experience the full sound quality of 1-bit audio, please use the Korg DS-DAC series, a certified USB audio device, or a device that supports 1-bit audio, such as the Korg MR series.
- In AudioGate 3, the song that's playing (or paused for playback) is called the "current song." The current song is displayed in bold and indicated by a Playback / Pause icon on the left side of the title, and the viewer will display the artist name, title and album name about that song on the upper section. The current location in the current song is called the "current position." The current position can be seen in the time display. (Refer to "Contents of the upper viewer display" on page 15.)

Playing back a song

Double-click a song in the songlist to make it the current song. Playback will begin automatically.

If you experience problems with playback, for example if there is no sound or if there are frequent clicks or pops in the playback, please refer to "Audio device settings" on page 17.



Transport Controllers

You can use the following features to control the playback. Alternatively, you can select [Controls] by clicking the menu button.





Controller name	Action
Play/Pause button	Switches the current song between playback and pause
FF button	Changes the current position to the next mark location. If there is no next mark, the current position will change to the next song in the songlist. By holding down this button you can fast-forward the playback point.
REW button	Changes the current position to the previous mark location. If there is no previous mark, you will move to the beginning of the song. By holding down this button you can rewind the playback point.
To button	If you click this while paused, a two-second region ending at the current position will play.
From button	If you click this while paused, a two-second region starting from the current position will play.
Playback point	Where the color a song's waveform is inverted indicates the current playback point. You can change the playback point by clicking on the desired point on the song's waveform display or by dragging this to left or right.

Contents of the upper viewer display

The upper viewer shows information about the current song.





Item	Method
Sample rate of the audio device	Indicates the sample rate of the audio device. The current song is converted to this sample rate in realtime as it plays.
Artist	Indicates the artist name of the current song.
Title	Indicates the title name of the current song.
Album	Indicates the album name of the current song.
Search window	You can select All, Title, Artist and Album. Click the magnifier mark on the left side of the search window to search in the selected items. When selecting All, the search is executed using all of the items, Title, Artist and Album. If the songlist contains the fitted items, the fitted songs will be displayed.
Format	Indicates the file format, number of channels, sample rate, and bit depth of the current song. When playing files with irreversible compression, the "bit depth" icon will be the "bit rate" indication (e.g., 128 kbps).
Time information	The current position time and the whole time of the current song are displayed.

Direct Locate function

This allows you to specify the current position directly from the keyboard.

- 1. While a song is playing or stopped, click the time information.
- 2. The counter will become an editable field. From the keyboard, enter the new counter position (e.g., 2:30). You may omit the colon (:), and simply enter "230" (interpreted as "2:30") or "1204" (interpreted as "12:04").



3. Press the Enter key on the keyboard. Note that the current position has changed.

Repeat playback

The viewer will cycle between Repeat, Repeat of Current Song or No repeat each time you click the button. (Player View only)



Shuffle playback

The viewer will cycle between Play in Shuffled order and No Play in Shuffled order each time you click the button. (Player View only)



Audio device settings

You can change the settings of the audio device by clicking the display section of the sample rate in the audio device. If the song does not play correctly, please check these settings to make sure that each item is configured properly. In addition, you can also click the menu button and select [Edit] - [Preferences...] to display the settings of the audio device.

A fast CPU is required for stable playback of 1-bit audio files directly, or real-time conversion from PCM to 1-bit audio files.

If any skip or noise occurs frequently during playback, adjusting the output buffer size may help improve the performance.



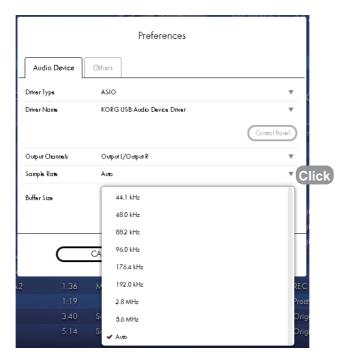
Auto sample rate switching function

AudioGate 3 can automatically switch the sample rate of the audio device to match the sample rate of the current song.

1. Click the display section of the sample rate in the audio device.

You can also click the menu button and select [Edit] - [Preferences...] to display it.

- 2. Click the [Audio Device] tab.
- 3. In the [Sample Rate] section, select [Auto].
- If the sample rate of the current song is not supported on the audio device, the sample rate will be set to the highest value of the device.



Playing back 1-bit audio files directly

AudioGate 3 can play back 1-bit audio files (DSDIFF, DSF or WSD) directly, without any conversion to PCM(*1).

- *1 This feature is only available when you are using a KORG USB Audio Device Driver(Windows "ASIO" /Mac).
- You can only use this function with devices that are certified by KORG Inc. including the KORG DS-DAC series. Please see the device list on our website. http://www.korg.com/products/audio/audiogate3/

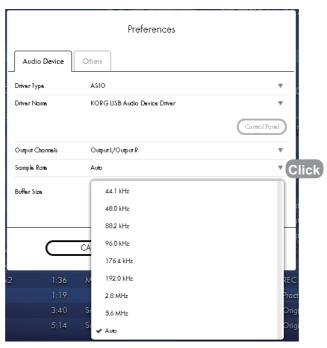
Please perform the following step, while being connected to computer audio equipment.

- **1.** Click the display section of the sample rate in the audio device.

 You can also click the menu button and select [Edit] [Preferences...] to display it.
- 2. Click the [Audio Device] tab.
- 3. In the [Driver Type] section, select [ASIO] (Mac [CoreAudio]).



- 4. Select the correct audio device in the [Driver Name] section.
- 5. In the [Sample Rate] section, select [Auto], [2.8MHz] or [5.6MHz].



6. Double-click a 1-bit song (DSDIFF, DSF or WSD) in the songlist or the playlist to make it the current song. Playback will begin automatically.

Playback Volume Auto Adjustment Function

This function enables you to listen to songs at almost the same volume level while automatically adjusting the volume of all songs during playback of songs from the Songlist. In addition, this function works during playback only and does not adjust the gain of the audio file itself.

1. Click the display section of the sample rate in the audio device.

You can also click the menu button and select [Edit] - [Preferences...] to display it.

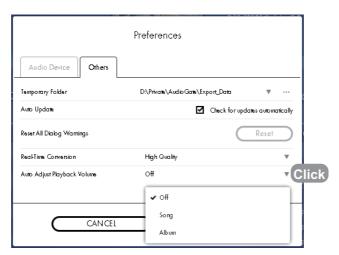
2. Click the [Other] tab.

3. Select the setting of the [Auto Adjust Playback Volume] feature.

Off: The Auto Adjustment Playback Volume function will not be applied.

Song: Playback volume of each song will be adjusted.

Album: Playback volume of each song will be adjusted while preserving the volume balance between songs in the album.



Audio CD/DSD disc Playback

AudioGate 3 will playback each track on the Audio CD/DSD disc as a song as well as registered songs in the library. For information on how to playback a song, see "Song Playback."

You cannot load a DSD disc using a drive that does not support DVD.

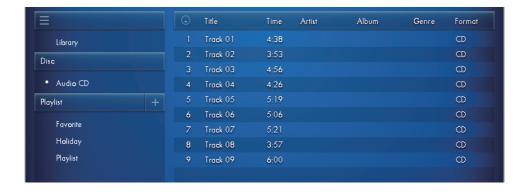
1. Insert the disc into your computer's CD/DVD drive.

If another window (a different application) appears, close that window.

Let Your computer does not detect a disc, a message will indicate "No audio discs found." Wait for a brief time, and if the disc is still not detected, check whether the drive is correctly connected to your computer and make sure that there is no problem with the disc that has been inserted.

- 2. If no side bar is displayed, click the side bar display button.
- 3. When Disc bar is added to the side bar, click the displayed "Audio CD" (or "DSD disc"). A list of the songs on the disc will appear in the songlist.

 At this time, the song is not added to the library.



- If the audio CD you're inserting into the drive contains embedded CD-TEXT data, or if the DSD disc contains embedded ID3v2.3 data, the track titles will be used as the song names.
- Let If you want to save each track on the Audio CD/DSD disc as an audio file, export it to the desired folder on your computer. If you're registering this into the Playlist or editing it, you must register it into the library. (Refer to "Song Registration" on page 8.)

Eject Disc

Select the Disc to eject by right-clicking (Windows) or control-clicking (Mac). Alternatively, you can select [Controls] - [Eject Disc] by clicking the menu button.

Song editing

AudioGate 3 lets you divide or combine songs in the songlist.

This allows you to export selected regions from an audio file, or combine multiple consecutively-recorded files into a single file before you export it. You can also edit the gain, fade, and DC cut settings of each song, and edit text data such as the title and artist name.

In addition, though you can edit some part of it in Player View, you can make more detailed changes in Edit View.

Edits applied to a song will be commonly reflected in both the library and the playlist. However, it will not be reflected in the song in the Playlist only when the division, combine and channel link function are executed in the songlist of the library.

Current song editing

Text Data editing

Edit the text data of the current song as follows.

• Artist, title, album

Edit the text on the left and right side of the attached picture in Player View or above the song waveform display of the upper viewer in Edit View. Click the text to make the text information editable. When you finish editing, press the Enter key to finalize the change.

• All text data

You can use the Batch Edit feature to modify the text information for a group of songs at once. (Refer to "Batch Editing Current Song Information" on page 24 and refer to "Batch Edit Song Information for Multiple Songs" on page 26)

- The title is used as the name of the output file when exporting.
- 准 If the song has no information about the title, the file name will be displayed in the Title field.
- Lit is possible to enter Japanese (multi-bite text) as the title. However, you should use English alphanumeric characters if you intend to export as an MR project.

Attached picture

Attached picture for the current song is displayed in Player View. If you want to change the attached image, click the displayed image and then select the desired image file.

Simply attaching an image file does not embed the image in the audio file. This means that if you move the image file, it will no longer be displayed in AudioGate 3. In order to embed the picture, you must export the file or create a disc.

If you want to delete the attached image, move the mouse pointer onto the image and click the X button.

Deleting the attached picture in AudioGate 3 does not delete the original image file.

AudioGate 3 can load images in the following formats.

- · Image files in JPEG or PNG format
- · Image files embedded in an AIFF, DSF, MP3, WMA, AAC, Apple lossless, or FLAC format audio files

AudioGate 3 can embed the picture attached to a file when exporting the following formats.

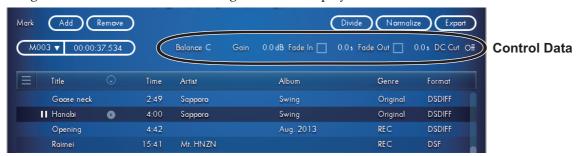
- · AIFF, DSF, MP3, WMA, or FLAC format audio files
- DSD discs

Control Data editing

Various control information for the current song is displayed in Edit View.

You can edit these settings by double clicking them and entering a value (or by making the changes by dragging the mouse up or down in the selected field). These settings are reflected when you play back or export the song.

⚠ This setting is not reflected in the edited song waveform display.



Control Data

Item	Method
Balance	This adjusts the left/right volume balance of the song within a range of L100CR100. However, the balance of a monaural song is fixed at C (center), and cannot be changed.
Gain	Specify the volume level of the song in a range of – 60.0 dB+ 60.0 dB. Adjust this so that the clip indicator does not light up during playback or during export.
Fade In	This specifies the shape of the envelope used for the fade-in, and the time duration (0.0 second–20.0 seconds) for the fade-in to be completed.
Fade Out	This specifies the shape of the envelope that's used for the fade-out, and the time duration (0.0 seconds–20.0 seconds) for the fade-out to be completed.
DC Cut	Normally you will leave this "Off" (disabled). If the song file contains a DC offset, you can turn this "On" to remove the offset. While often inaudible, a DC offset can reduce the available headroom before clipping, and can affect the sound quality in other ways.

Batch Editing Current Song Information

Edit the song information of the current song.

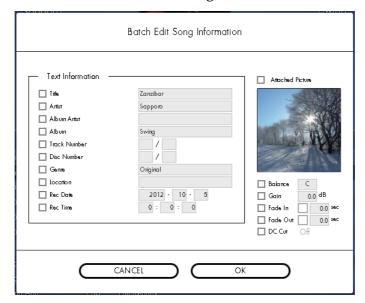
The song information includes the text data, the attached picture and control information (see page 23). This information can be edited in the "Batch Edit Song Information..." view.

- When a file is exported, this information is embedded in the header of the exported file.
- Embedding to AAC and the Apple lossless file is not supported.
- Lt is possible to enter Japanese (multi-byte text) as text information, but you should use English alphanumeric characters if you intend to export in a format other than AIFF, DSF, MP3, WMA, FLAC file or DSD Disc. Due to limitations in the file format, characters other than English alphanumerics will be ignored when exporting.
- 1. Move the mouse pointer onto the targeted song in the Songlist, and click the context menu icon displayed on the right side of the Title to select the [Batch Edit Song Information...].

Alternatively, you can select [Edit] - [Batch Edit Song Information...] by clicking the menu button.



- You can also select and register the [Batch Edit Song Information...] by right-clicking (Windows) or control-clicking (Mac).
- 2. Click the text of the desired items in the "Batch Edit Song Information..." view to enter the text.



3. Edit the data for the items you selected.

A check mark will automatically be placed in the check box of the edited item. Removing the check mark finalizes the edit.

Text Information

When you click the text editing field located at the right of an item name, it will become editable. (Refer to "Text Data editing" on page 22.)

Attached picture

AudioGate 3 can load images in the following formats. (Refer to "Attached picture" on page 22.)

Control Data (Balance, Gain, Fade In, Fade Out, DC Cut)

You can edit these settings by clicking the button and double-clicking the figure to enter a value (or by dragging the mouse up or down in the selected field). (Refer to "Control Data editing" on page 23.)

4. Press the OK button.

The metadata editing window will close, and the edits will be reflected in the current song.

When a file is exported, this information is embedded in the header of the exported file. Depending on the file format, among the information embedded in the header, items that can be read or written are limited. If "Add iTunes songs" is executed, the information supported by iTunes overrides the others, regardless of the format.

Batch Edit Song Information for Multiple Songs

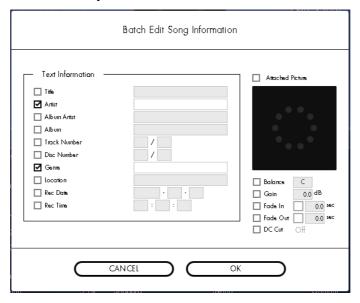
You can execute batch editing of the text data for multiple songs, attached pictures and control information.

- 1. Click the song on the songlist to select it.
- 2. To select multiple songs, hold down the Ctrl key (Mac: Command key) and click other songs.
- 3. Move the mouse pointer onto the selected song, and click the context menu icon displayed on the right side of the Title to select the [Batch Edit Song Information...] function.

Alternatively, you can select [Edit] - [Batch Edit Song Information...] by clicking the menu button.



- You can also select and register the [Batch Edit Song Information...] by right-clicking (Windows) or control-clicking (Mac) in the songlist.
- 4. Click the button to the left of each item you want to edit, so that the desired buttons are selected.



5. Edit the data for the items you selected.

See procedure 3: "Batch Editing Current Song Information" on page 24.

6. Press the OK button.

The metadata editing window will close, and the edits will be reflected in the songlist.

Dividing a song

You can divide the current song into two separate songs at any point.

When you divide a song, the original song will be left as it is and the two songs that have other names following the Divide operation will be registered into the Songlist.

- 1. Use the song playback functions to move to the point where you want to divide the song.
- **2. Make sure that playback is paused, and click the Divide button.** Alternatively, you can perform the same thing by clicking the menu button and selecting the [Edit] [Divide].

You will see that the song has been divided in the songlist.

Text data and control information will generally be carried over into both songs following the Divide operation.



Combining songs

Combining songs splices the end of one song directly to the beginning of another song. Here's how you can combine two or more songs into a single song.

When you combine songs, the original song will be left as it is and the song that has another name following the Combine operation will be registered into the Songlist.

- 1. In the songlist, click a song to select it.
- 2. Hold down the Ctrl key (Mac: Command key), and click on other songs to select them.



3. Move the mouse pointer onto the selected song, and click the context menu icon displayed on the right side of the Title to select the Combine button.

Alternatively, you can select [Edit] - [Combine] by clicking the menu button.

You can also select and register the [Edit] - [Combine] by right-clicking (Windows) or control-clicking (Mac).

You will see that the songs have been combined in the songlist.



- You can use the Combine function to join recordings together that were not originally separated by the MR recorder's automatic split function, however a faint noise may be introduced at the point where the songs are joined.
- You can't combine songs of differing formats.
- You can't combine songs that are in compression formats such as MP3, AAC, Apple lossless (ALAC), or WMA.
- Text data and control information will generally be taken from the top song in the list.

Channel Link function

This allows you to handle two monaural songs as a single stereo song. Normally you will use this to link two songs of the same length.

When you link songs, the two original songs will be left as they are and the song that has another name following the Link operation will be registered into the Songlist.

- 1. Click one of the songs in the songlist to select it.
- 2. Hold down the Ctrl key (Mac: Command key) and click the other song so that both songs are selected.



3. Move the mouse pointer onto the selected song, and click the context menu icon displayed on the right side of the Title to select the Channel Link button.

Alternatively, you can select [Edit] - [Channel Link] by clicking the menu button.

You can also select and register the [Edit] - [Channel Link] by right-clicking (Windows) or control-clicking (Mac).

Verify that the songs are linked in the songlist.



- You can't link songs of differing formats.
- You can't link songs that are in compression formats such as MP3, AAC, Apple lossless (ALAC), or WMA.
- If you link songs that are of differing lengths, the resulting length will match the longer song.
- Text data and control information will generally be taken from the top song in the list.

Normalization Function

When the Normalize button is pressed, the current song will be normalized to its maximum volume, and a value will be set to Gain in the control data of the song so that the peak value may not exceed 0 dB.



The result of normalization is not reflected in the song waveform display.

Mark function

In Edit View, you can place marks to the time base of the song. If you place marks on editing points or in an approximate position between music such as live music, you can move to the correct positions quickly.

Importing marks

AudioGate 3 can load the following marks.

- · Marks included in an MR project
- \cdot Marks included in the cue-points chunk of a WAV/BWF file
- · Marks (track start and index) included in the marker chunk of a DSDIFF file

Exporting marks

AudioGate 3 can embed marks when exporting the following file formats.

- · MR project format
- · WAV or BWF files
- · DSDIFF files

Editing marks

If you click the mark information, the mark list will appear and you can edit it. In addition, you can see the registered mark icons shown above the time slider of song waveform display. The mark information and the red mark icon are the current mark position you are selecting.



Operation	Method
Selecting a mark	Click the mark icon (or by the mark list). The mark icon will be displayed in red and selected, and the mark number and mark location will be displayed in the mark information.
Adding a mark	Click the Add button to add a mark at the current position. You can't add marks at the same position.
Removing a mark	Click the mark icon at the position that you want to remove (or by the mark list), and click the Remove button.
Editing the location of a mark	Select the mark whose location you want to edit, and click the displayed mark time. The time indication will become editable. Use the keyboard to enter the desired time, and press the Enter key.
Removing all marks from the current song	Click the menu button and select the menu item [Edit] - [Remove All Marks].
Dividing the song at all marks locations	Click the menu button and select the menu item [Edit] - [Divide At Marks].

Moving to a mark location

Operation	Method
Moving to the next mark	Click the FF button. You will move to the "next mark" relative to the current position.
Moving to the previous mark	Click the REW button. You will move to the "previous mark" relative to the current position.
Moving to a specified mark	Double-click the mark icon. Click the mark information "▼" to select a mark from the list.

Other convenient functions

Reverting an edit (Undo)

Click the menu button and select the menu item [Edit] - [Undo], you can revert to the state prior to executing the most recent editing operation.

Re-executing the edit (Redo)

Click the menu button and select the menu item [Edit] - [Redo], you can re-execute the operation that was reverted by the Undo command.

Exporting in a different audio format

AudioGate 3 can convert the songs in the songlist into a desired format and export them as audio files or use them to create an audio CD or DSD disc.

The MR series does not necessarily support all formats that are supported by AudioGate 3. If you want the exported file to play on your MR series recorder, the file must be converted to a format that your MR series recorder supports. For more information, please refer to the owner's manual of your MR series unit.

Exporting an audio file

Here's how to convert the songs in the songlist into a desired format and export them as audio files or as an MR project. The title in the songlist will be the name of the exported file.

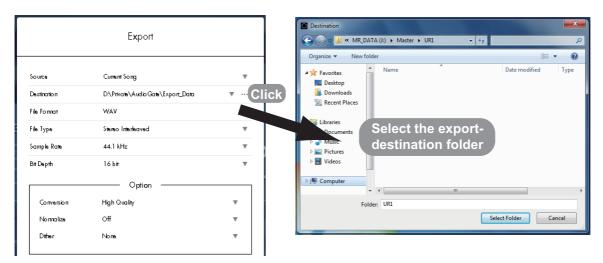
1. Make sure that the songlist contains the file that you want to export, and then click the Export button. The Export file setting screen will appear.



- Alternatively, you can select [File] [Export...] by clicking the menu button.
- 2. Set the conversion source. Choose [Current Song] to export the current song or choose [Selected Playlist] to export all songs in the current songlist.



3. In the [Destination] area, click the [...] and choose the export-destination folder.



4. Specify the desired output file format.



5. Specify the desired output file type.



Mono/Dual Mono

A monaural song will be exported as a monaural file, and a stereo song will be exported as a dual mono file. This is especially convenient if the file is going to be brought into in a DAW after export.

Stereo Interleaved:

A channel-interleaved stereo file will be exported. In the case of a monaural song, the L channel and R channel will contain the same data. If you want to play back the file on the MR series recorder, copy it into the AUDIO folder.

MR Project:

An MR project folder containing a .prj file and audio file will be exported. This is useful when exporting very large audio data (exceeding the 4 GB limit of FAT32).

Marks edited by AudioGate 3 can be embedded into the MR project. If you want to play back the songs on the MR series recorder, copy the file to the appropriate location in the MR_PROJ folder. Please refer to the owner's manual of your MR series recorder for more information.

6. Specify the desired sample rate and bit depth for the exported file.





7. Set optional settings (see page 34) if it is required.

8. Click the OK button.

File conversion export will begin.



- △ 1-bit audio files may contain louder signals than PCM. When converting 1-bit audio files to PCM files, you might need to set gain settings down by approximately 3.0 dB to avoid clipping (see page 23).
- When exporting a song as a 1-bit audio file, a minimal amount of silence may be added to the end of the exported file.
- If the input file and the output file have the same sample rates, and if the gain and DC Cut settings are kept to default (see page 23), AudioGate 3 may switch to "direct exporting mode" where unnecessary recalculation is reduced. The level meter will be fixed to 0dB when AudioGate 3 is running in "direct exporting mode."

Optional settings

When exporting audio files, you can make detailed settings for the conversion algorithm. The items that can be set will depend on the output format.

Conversion

You can choose the type of export conversion from the following two alternatives.



Light Load:

The expert audio conversion that has been utilized in AudioGate Ver. 2.3.

High Quality:

High quality export audio conversion that has been added in AudioGate 3.

When exporting, CPU utilization may become very high from choosing [High Quality].

2.8 MHz DSD Filter

Sets the additional filter for the conversion from 1 bit/2.8 MHz songs to 176.4 kHz or 192 kHz PCM files.



Off

The additional filter will not be applied.

Soft Roll-off (-3dB@50kHz)

Applies a low-pass filter with soft roll-off.

Sharp Roll-off (-3dB@42kHz)

Applies a low-pass filter with sharp roll-off.

Normalize

This specifies whether normalization (increasing the level as high as possible without creating distortion) will be applied. If you enable this, the gain of each song will be automatically adjusted to the optimal value.



Off

Normalization will not be applied. The volume level after conversion will be determined according to the original gain setting.

Individual Songs

Each song will be normalized individually to its respective maximum volume. The original gain setting will be completely ignored.

Current Songlist Selections (avg. level)

The maximum peak from all songs being exported will be found, and the songs will be normalized while preserving the volume balance between songs.

The original gain setting will be used to adjust the balance between songs.

- When you use normalization, the automatically-adjusted gain will be indicated in blue text while the files are being exported.
- In general, converting the sample rate will require samples to be interpolated, possibly causing the peak levels to be slightly higher than the original data. If the song's peak level was already close to 0 dB before normalization, the gain may be automatically adjusted to below 0 dB.
- 1-bit audio data may contain loud sounds that exceed the limits of PCM. If normalization is applied when converting 1-bit audio to PCM, the gain may be automatically adjusted to about -3.0 dB.
- When exporting in a 1-bit audio format, normalization is applied referenced to 0 dB-SACD, but in some cases the output data may slightly exceed the reference value (i.e., the level meter indication may exceed 0 dB). Even in this case, the signal is far lower than the theoretical clipping level for 1-bit audio, so there will be no problem with the exported data as long as the clip indicator does not light up.

When normalization has completed successfully, and the file export or disc creation process has ended, a dialog box will ask "Do you want to load the normalized gain setting to the songlist?" If you choose "Load," the gain setting used for normalization will be applied to the "Control data" for each song.

By applying the gain used for normalization to the "Control data" of each song, and then exporting with the Normalize box set to [Off], you can greatly reduce the processing time for subsequent exports. However if you've changed the output sampling frequency, the peak values of the output data will change slightly, so you'll need to perform the normalization process once again.

Dither

Here is where you can select the dither settings for exporting the results of the internal high-precision calculations as 16/24-bit data.



None

The results of the internal calculations are rounded up or down to 16/24-bit data. If the volume of the song is sufficiently loud, there will be no particular problems even with this setting selected.

TPDF Dither

Standard white noise dithering will be applied. The noise floor will increase slightly, but distortion components can be completely suppressed.

Choose this if you'll be continuing to edit using another application after exporting the song.

KORG AQUA

This method takes into account the characteristics of human auditory perception, producing a higher-quality master by limiting the increase of quantization noise in important frequency regions.

Choose this if you're exporting a song as the final master.

AudioGate 3 is able to automatically detect situations where dithering is not necessary. Even if dithering is set to [TPDF Dither] or [KORG AQUA], this setting may be ignored in some cases to avoid any increase in noise.

Creating an audio CD or DSD disc

You can create an audio CD or DSD disc from the playlist.

Each song in the songlist will be written as one track on the disc.

If the format of a song does not match the format of the disc, the format will be automatically converted before writing the song to disc.

1. To create a disc that only contains the current song, click the menu button and select [File] - [Burn Disc...].

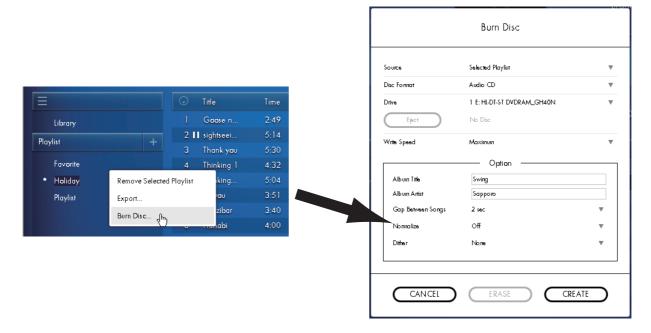
The Burn Disc setting screen will appear.



You can also create a disc from the playlist. To do so, click the side bar display button to display the side bar, right-click (for the Mac. Device, control-click) a file in the playlist, and select [Burn Disc...].

The Burn Disc setting screen will appear.

If the output source setting is [Current Song], change this setting into [Selected Playlist].



2. Select the format of the disc that you want to burn.



- 3. Select the drive you'll use to burn the disc from the list of writable CD/DVD drives.
 - If you're creating a DSD disc, you must select a drive that can write DVDs.
- 4. Insert a blank disc or a rewritable disc (CD-RW, DVD-RW, DVD+RW) into the drive that you selected in step 3. If any other windows (other applications) are open, close them to exit those applications.
 - If you're creating an audio CD, you must insert a CD-R or CD-RW disc.
 - If you're creating a DSD disc, you must insert a DVD-R, DVD-RW, DVD+R, or DVD+RW disc, whichever your drive supports.
- **5.** If you inserted a previously-used rewritable disc, click the ERASE button. The Erase Disc dialog box will appear.



6. Choose "Quick Erase" or "Full Erase."

Quick Erase

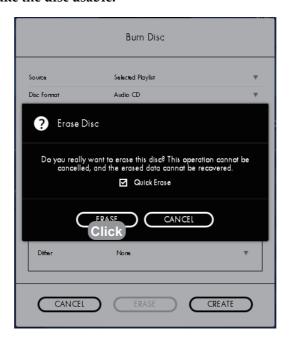
The disc's TOC (Table Of Contents) information will be erased to make the disc usable. This allows faster processing, but in some cases a larger number of errors may occur, depending on the overwrite performance of the disc. If you experience problems when creating a disc, we recommend that you use Full Erase.

Full Erase (clear the Quick Erase check box)

The disc will be erased completely to make it usable. This will usually take more time than Quick Erase.

When you erase a disc, all data will be lost. You cannot cancel or undo this operation.

7. Click the ERASE button to make the disc usable.



8. Specify the disc writing speed.



9. Set optional settings (see page 41) if it is required.

10. Click the CREATE button.



A dialog box will show the progress; format conversion and the disc burning process will begin.

- 11. When the disc has been created successfully, the dialog box will indicate "Writing completed. Do you want to create another disc?", and the disc will be ejected.
- **12.** If you want to create another identical disc, insert a blank disc and choose [CREATE]. If you're finished, choose [DON'T CREATE].

Optional settings

When creating a disc, you can edit the disc name and the normalization option. The items that can be adjusted will depend on the output format.





Album Title

This specifies the album title of the audio CD or DSD disc.

This information is embedded in the disc, and can be displayed by players that support it.

when creating an audio CD, this is written as CD-TEXT.

Album Artist

This specifies the name of the album artist for the audio CD or DSD disc.

This information is embedded in the disc, and can be displayed by players that support it.

When creating an audio CD, this is written as CD-TEXT.

▲ Use alphanumeric characters if you're creating an audio CD. Some drives may not allow you to specify this item.

Go Between Songs

This specifies the spacing between songs on an audio CD. For a drive that supports Disc-At-Once, you can create a gapless CD by specifying [None] as the song spacing.

A On some drives, the song spacing you specify might not be applied correctly.

When you create a gapless CD, the location of the track division (the point at which songs are divided) might be automatically adjusted forward by a maximum of 1/75th of a second.

Normalize

Refer to "Normalize" on page 36.

Dither

Refer to "Dither" on page 37.

Auto Update function

AudioGate 3 is able to check for updates via the Internet.

By keeping your copy of AudioGate 3 updated to the latest version, you can ensure that you're getting the best performance and stability.

Manually checking for updates

1. Make sure that your computer is connected to the Internet, click the menu button and select the menu item [Help] - [Check for Updates...].

"Korg Software Update" will start up.



2. If a newer version of AudioGate is found, make sure that the "Install" check box is selected, and then click the Download button.

Downloading will begin.

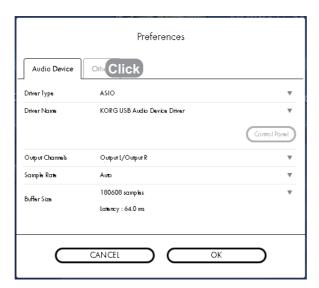


When downloading is completed, the save-destination folder will appear. If you want to install the new version immediately, close AudioGate 3 and then start up the installer.

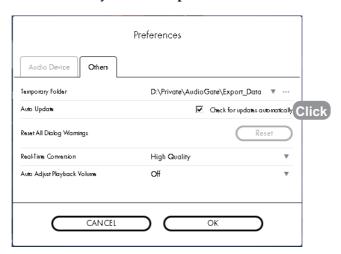
Automatically checking for updates

You can edit settings so that AudioGate 3 will automatically check for updates when it is started.

- **1.** Click the display section of the sample rate in the audio device. You can also click the menu button and select [Edit] [Preferences...] to display it.
- 2. Click the [Other] tab.



3. If the item [Check for updates automatically] of [Auto Update] is not selected, click the check box to select it.



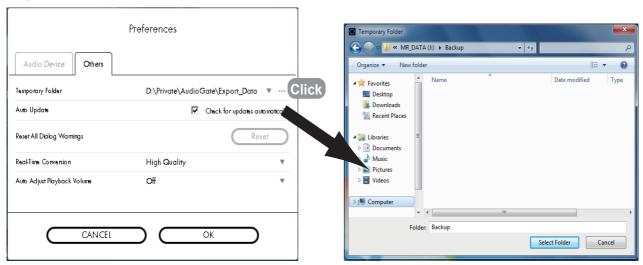
With this setting, AudioGate 3 will check for updates when it is started up, and "Korg Software Update" (described earlier) will start up if a newer version is available.

Other settings

Changing the folder where temporary files are created

AudioGate 3 occasionally creates temporary files when creating a disc or adding audio files. Here's how to change the location where these temporary files are created.

- **1.** Click the display section of the sample rate in the audio device. You can also click the menu button and select [Edit] [Preferences...] to display it.
- 2. Click the [Others] tab.
- 3. In [Temporary Folder], click [...] and select the desired folder.
- We recommend that you specify a hard disk drive with plenty of free space as the location where the temporary file folder is created.



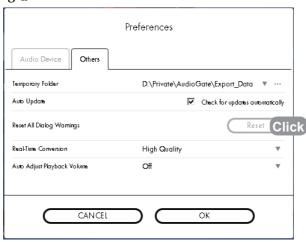
Resetting the warnings of all dialog boxes

Some warning dialog boxes have an option "Do not show this message again." If this check box is selected, that warning will no longer appear

Here's how to make these suppressed warnings appear again.

- **1.** Click the display section of the sample rate in the audio device.

 You can also click the menu button and select [Edit] [Preferences...] to display it.
- 2. Click the [Others] tab.
- 3. In [Reset All Dialog Warnings], click the Reset button.



Changing the type of real-time conversion

You can choose the type of real-time conversion from the following two alternatives.

Light Load:

The real-time audio conversion that has been utilized in the former version.

High Quality:

High quality real-time audio conversion that been added in Ver. 2.3

When playing back, CPU utilization may become very high from choosing High Quality.

1. Click the display section of the sample rate in the audio device.

You can also click the menu button and select [Edit] - [Preferences...] to display it.

- 2. Click the [Others] tab.
- 3. In the [Real-Time Conversion] section, select conversion type.



Switching background

You can select your favorite background image from several different choices.

- 1. Click the menu button and select the menu item [View] [Background].
- 2. Select the background.



Regarding the FLAC license

AudioGate uses the FLAC library pursuant to the following license.

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List of shortcuts

Function	Windows	Mac
Add Audio Files	Ctrl + O	Command + O
Open Folder	Ctrl + Shift + O	Command + Shift + O
Remove Songs	Delete	Delete
Export	Ctrl + Shift + E	Command + Shift + E
Burn Disc	Ctrl + Shift + B	Command + Shift + B
Exit	Ctrl + Q	Command + Q
Undo	Ctrl + Z	Command + Z
Redo	Ctrl + Shift + Z	Command + Shift + Z
Cut Text	Ctrl + X	Command + X
Copy Text	Ctrl + C	Command + C
Paste Text	Ctrl + V	Command + V
Select All Songs	Ctrl + A	Command + A
Select All Marks	Ctrl + Shift + A	Command + Shift + A
Divide	Ctrl + D	Command + D
Divide At Mark	Ctrl + Shift + D	Command + Shift + D
Remove All Marks	Ctrl + Shift + Delete	Command + Shift + Delete
Combine	Ctrl + J	Command + J
Channel Link	Ctrl + L	Command + L
Batch Edit Song Information	Ctrl + Shift + I	Command + Shift + I
Preference	Ctrl + ,	Command + ,
Add Mark	M	M
Edit Song Name	Ctrl + T	Command + T
Switch View	Ctrl + I	Command + I
Select Song Above	\uparrow	\uparrow
Select Song Below	↓	↓
Play Selected Song	Enter	Enter
Play/Pause	Space	Space
Play From	F	F
Play To	T	Т
Next Mark	Ctrl + Shift + →	Command + Shift + →
Previous Mark	Ctrl + Shift + ←	Command + Shift + ←
Next Song	Ctrl + →	Command + →
Previous Song	Ctrl + ←	Command + ←
Fast Forward	→ (Hold down)	→ (Hold down)
Rewind	← (Hold down)	← (Hold down)

Function	Windows	Mac
Move 0.001 second Forward	Shift + →	Shift + →
Move 0.001 second Backward	Shift + ←	Shift + ←
Move 0.05 second Forward	\rightarrow	\rightarrow
Move 0.05 second Backward	←	←
Move 1 second Forward	Alt + →	Option + →
Move 1 second Backward	Alt + ←	Option + ←
Direct Locate	G	G