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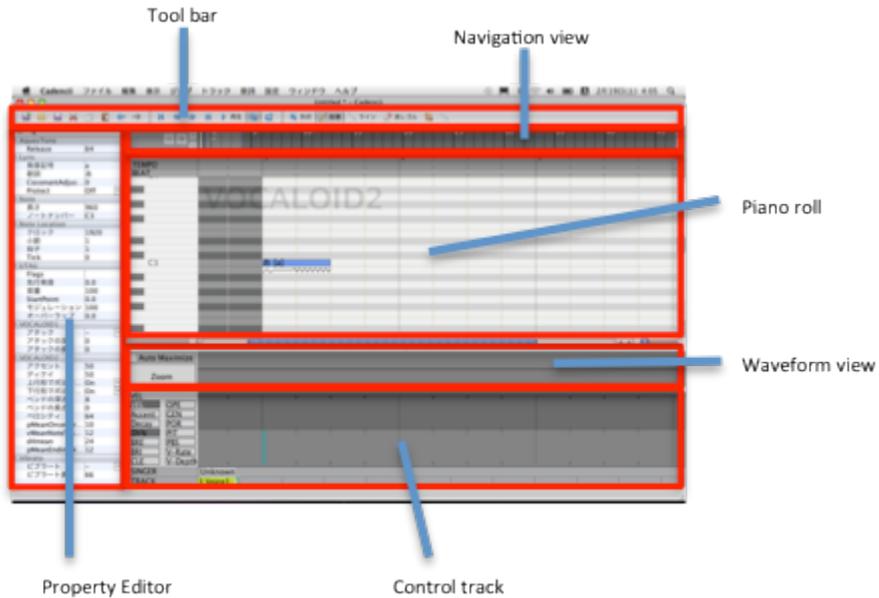
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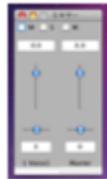
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# 1. Screen overview

Main screen consists from toolbars, property editor, piano roll, waveform view, navigation view, control track as shown below. In addition, there is the mixer and icon palette windows. The visibility of these windows and toolbars can be switched with the "View" menu in the main menu bar.



Mixer window



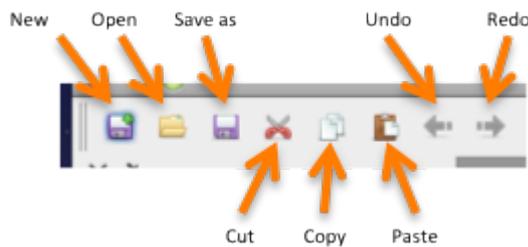
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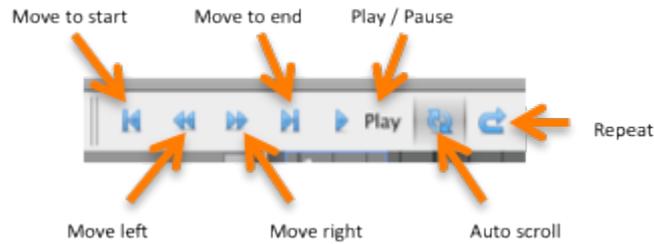
## 1.1. Toolbar

There are three toolbars, "Edit", "Navigation", and "Tools"

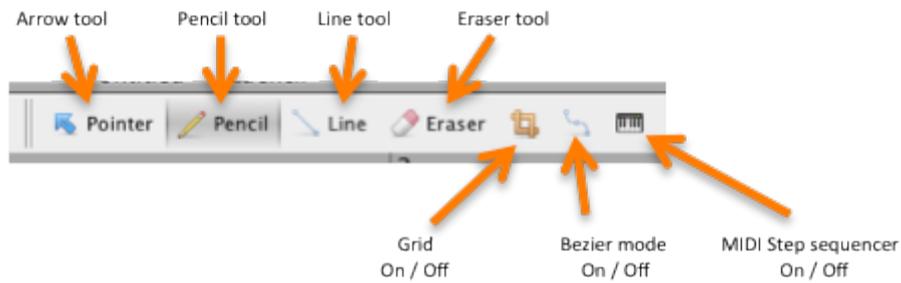
### "Edit" toolbar



## "Navigation" toolbar



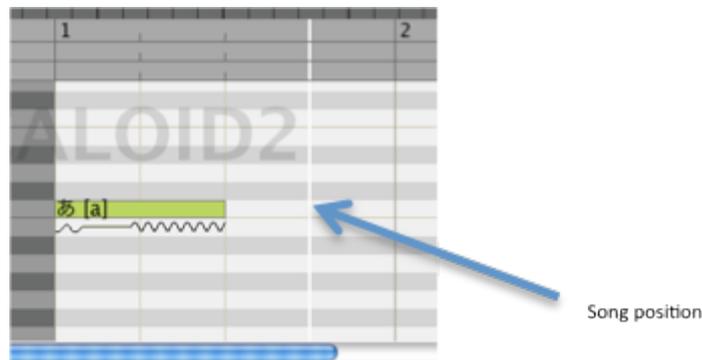
## "Tool" toolbar



## 1.2. Piano roll

The horizontal axis of the screen means time, and vertical means pitch. There are 128 lanes, and one lane means "semitones". By putting and editing notes on the piano roll in correct length, we can edit music score.

### Song position



Song position is equivalent to the "cursor" or "caret" in usual text input, and drawn in thick white vertical line on a piano roll. When you press the play button, preview will start from the song position. Copy & Paste operation are also done for song position. There are 5 ways moving song position.

### Click the number of bars displayed lane

Song position will move to clicked location.

### **Move the navigation buttons on the toolbar**

Click the navigation button on "Navigation" toolbar.

### **Double-click empty area on piano roll**

Song position will move to double-clicked location.

### **Press the left / right keys on keyboard**

Song position will move left / right.

### **Press left / right of Cross button of game pad (Windows version only)**

Song position will move left / right. This function is available when game pad is connected, and "Normal mode" is selected.

## **Scrolling piano roll**

In addition to scroll the scroll bars, there are several methods for scroll.

### **Press middle button of mouse while dragging**

While dragging, piano roll scrolls along with the motion of mouse.

### **Double-clicking on the location you want to move on the Navigation view**

Piano roll scroll to double-clicked location.

### **Press up / down of Cross buttons of game pad (Windows version only)**

Piano roll will scroll up / down. This function is available when game pad is connected and "Normal mode" is selected.

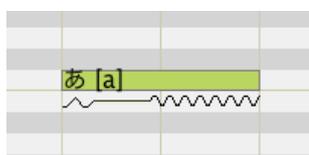
## **Tempo, Time Signature, and Bar display**

The top of the piano roll is separated into 3 stages: Bar Count is displayed on top stage, Tempo is displayed on second stage, and Time Signature is displayed bottom stage. If top stage is clicked, song position will move to the clicked position.



## **Music notes**

On piano roll, the note is displayed as a rectangle. (as shown the figure.)

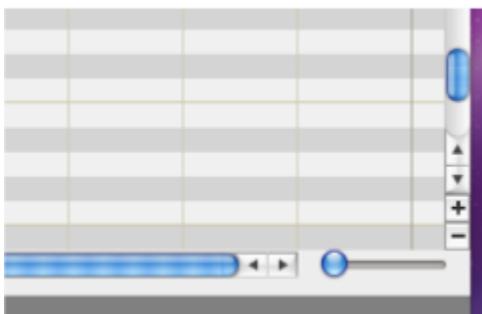


Musical notes have two parameters related to lyric, "Phrase" and "Phonetic Symbol". In the figure, the "Phrase" is "あ", and "a" is the "Phonetic Symbol".

Under the notes, two wavy lines are drawn. First the chevron-shaped line is the attack parameter: the larger the attack parameter is, the higher the chevron becomes. Last, the wavy line displayed are the range of which vibrato is applied.

## Zoom level

Zooming scale can change by using the components placed in lower-right corner of piano roll.



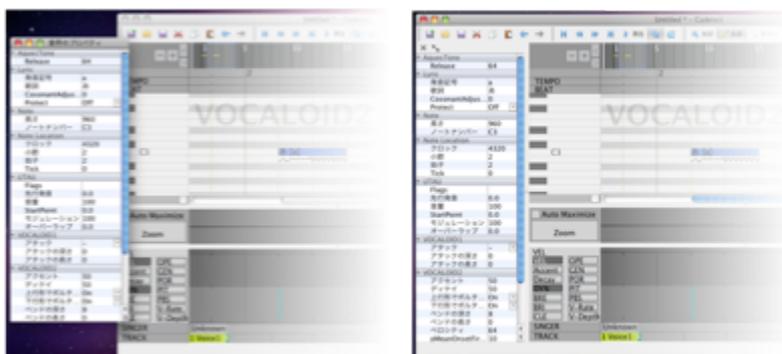
Horizontal scaling can be changed continuously with the zoom slider. Vertical scaling can be changed with "+" and "-" button.

## 1.3. Property Editor

The Properties of selected item are displayed in the Property Editor window to edit them. When you select multiple items at the same time, properties editing operation affects all selected items.

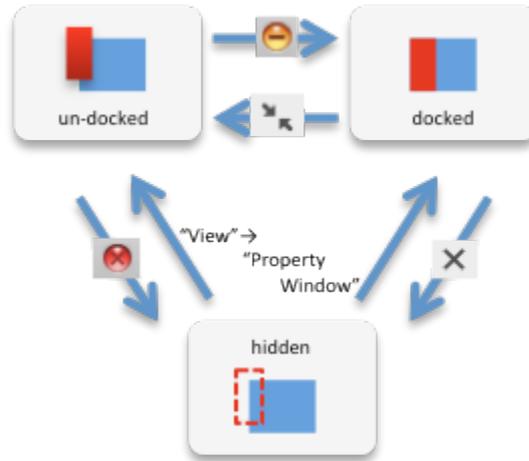
### Un-dock from main window

Property Editor can separate from main window. In the figure below, un-docked (left) and docked (right) state are shown.



When the minimize button (☰) is pushed in un-docked state, the Property Editor goes to a docked state (right). When the un-dock button (☒) is put to docked state, the

Property Editor becomes docked. These operation is summarized as shown below.



## Collapse categories

Properties are classified into categories. By clicking the title of the category, you can collapse / expand these categories.



## 1.4. Waveform view

The "Waveform view" displays the waveform of the synthesis result.

### Vertical scaling

There are two display modes: first is the mode to set the scale manually, second is the mode in which the scale is automatically set depends on the actual amplitude of waveform.

To use the manual mode, un-check the "Auto maximize" button and change the scale by dragging the mouse up and down with "Zoom" button. To use the automatic mode, just check the "Auto maximize" button.

## 1.5. Navigation view

The miniature view of the piano roll is displayed on Navigation view. The horizontal axis represents time and vertical is pitch similar to piano roll.

The scale of horizontal direction can be changed with "+" and "-" button on left side.

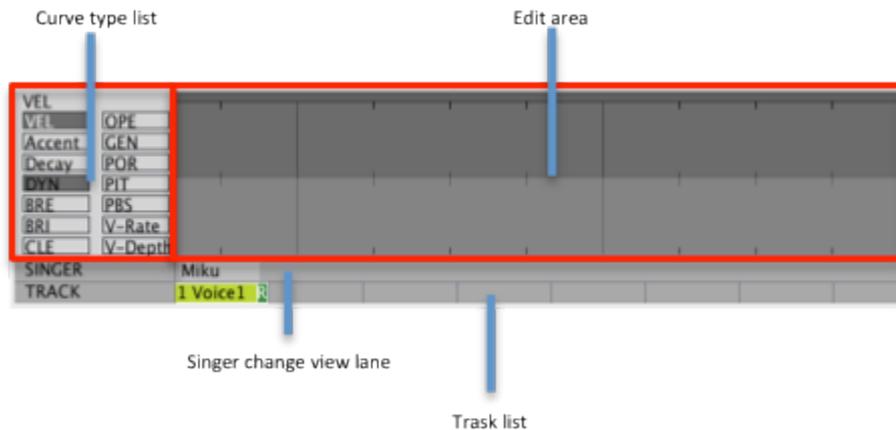
The scale of vertical direction is fixed and cannot be changed.

To navigate the view, click "<" or ">" button placed on both side of the view.

Shadowed area in the Navigation view represents the actual view port of the piano roll. When the mouse button is pushed on Navigation view, the view port moves to the location of mouse, and the display region of the piano roll will refreshed depending on the new view port location. When the mouse button is released without double-clicking, the view port will revert to the original location immediately and display region of the piano roll will also return to initial state. When you double-click the mouse on the Navigation view, translation of the view port will be confirmed to the double-clicked location and piano roll will scroll to the location depending on the location of view port.

## 1.6. Control track

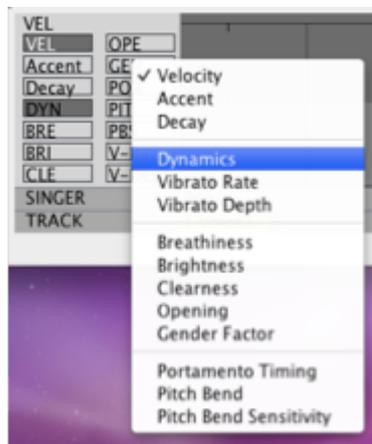
Parameters such as pitch bend and volume are displayed, and can be edited.



### Curve type list

The Area for choosing the curve type. (In the figure above) "VEL" is selected and displayed.

Select the curve by clicking the name of curve type, or select from context menu while left clicking above the list area.



In the list, you can add or remove curve types from preference<sup>1</sup>. Therefore, it is convenient to select the curve type which you use frequently. On the other hand, the list of the context menu is independent to the preference and all curve types are always displayed.

## Edit area

This displays the curves that select the type list of curves. The curve previously selected was drawn on background in pale color.

## Singer change view lane

Horizontal direction represents time and is always synchronized with piano roll. The singer changes are drawn as a box labeled a singer name. The left edge of the box is the time of singer change.



The shadowed box does not mean that the singer change is located at that position, rather means the actual location of the events is off-screened. The actual singer change can be seen in the left region of current view-port.

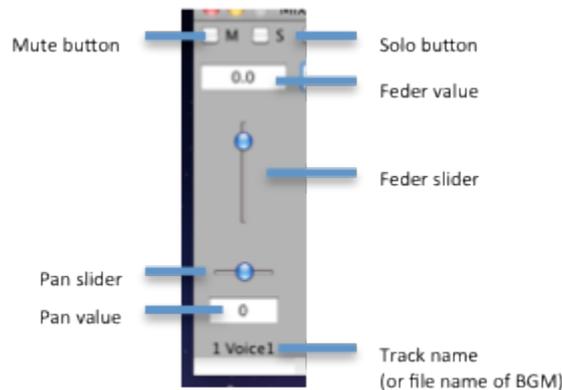
## Track list

Displays all the tracks of current sequence. OFF or muted tracks are displayed in gray.



## 1.7. Mixer window

Mixing controllers for all tracks and background music are assigned in the mixer window.

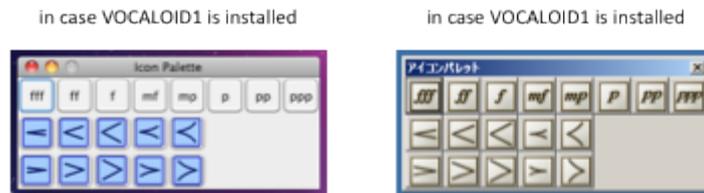


<sup>1</sup> "5.3"Appearance" tab", "Visible Control Curve" (p. 24)

If mute button is checked, the volume of track or background music is turned off.  
If solo button is checked, the volumes of all other tracks and background musics are turned off.

## 1.8. Icon Palette window

Icon Palette window looks different whether VOCALOID1 is installed or not.



The icons located on the first row represents the strength symbols, and second and third row means crescendo and decrescendo, respectively.

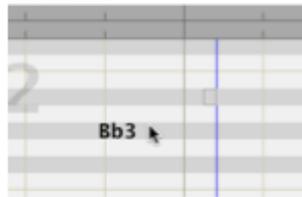
To add these icons into piano roll, drag the icon and drop to the location you preferred on the piano roll.

## 2. Note entry and editing

### 2.1. Mouse input

In order to create new notes, first select the pencil tool (鉛筆) or line tool (ライン). Second, push mouse button at the location you want to put a note, and drag the mouse to the location where the note ends, then release the mouse button.

By releasing the mouse button on the left side area of the note, the input process will be cancelled and no note will be created. This function will be useful when you have miss typed the start position of the note.



### 2.2. MIDI step input from MIDI device

In order to use MIDI input device, you have to turn on the “MIDI step sequencer” mode. To enable this mode, just click the button that says “MIDI step sequencer” on the toolbar. In case the button is not enabled and cannot select it. Two reasons are considerable. First, no MIDI input device is connected to your PC. Second, the preference is not set correctly. In the second case, please check the preference dialog<sup>2</sup>.



Before adding a note by MIDI device, you have to move the song position to where the note starts, because new notes always starts from the song position.

When a MIDI key has been pushed, the note will turn into a tentative input state. While this mode is going on, the length of the note can be changed by using the “←” or “→” keys at intervals of the unit length of quantization. The tentative input state will be cancelled by pushing the ESCAPE key, and then, song position will revert to the original position before the tentative state had started. To fix the length of the note in tentative state, just push the ENTER key. You can enter other notes by repeating this process.

<sup>2</sup> [5.4 "Operation" tab, MIDI In Port Number](#)

## 3. Singing voice synthesis

### 3.1. AbstractOverview

The voice synthesizer is specified for each track, and cannot be switched in the middle of track. Therefore, in order to change the voice synthesizer in the middle of sequence, prepare 2 or more tracks and set different voice synthesizer for each tracks.

Several voice synthesizers have two or more voice database. In this case, you can change the voice database in the middle of sequence.

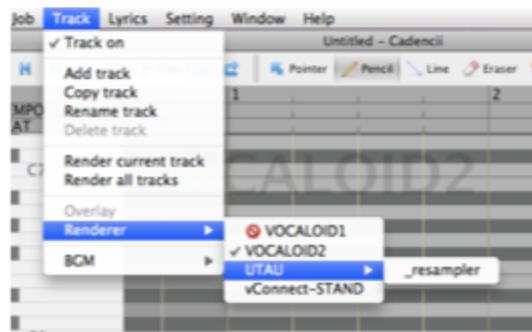
The sampling rate and the number of channels (monoral or stereo) are set for a sequence, not for track. Therefore, all tracks in the sequence have same sampling rate and channels.

To study the details of the singing voice synthesis system in Cadencii, see [7. Synthesis process in Cadencii](#).

### 3.2. How to change the voice synthesizer

Select a track and click from the drop-down menu: “Track” → “Renderer”. For example, if you click the menu “Track” → “Renderer” → “VOCALOID1”, the voice synthesizer of the selected track changed to VOCALOID1.

In addition, in case of UTAU, you have to specify the “resampler” by clicking the drop-down menu in “Track” → “Renderer” → “UTAU” → “*name of the resampler*”. “*the name of the resampler*” means the path of the resampler.



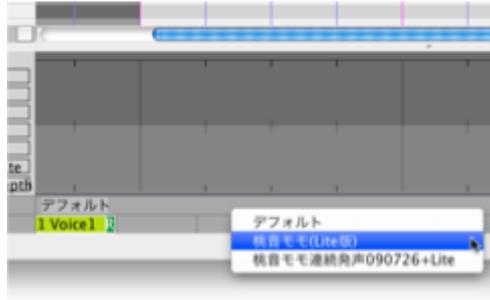
The figure above shows how to specify the resampler when using UTAU as the voice synthesizer. A check mark appears on the menu when it is selected. As seen in the figure above, the “FORBIDDEN” mark appears on the “VOCALOID1” menu. This means that the VOCALOID1 voice synthesizer is not available at this time. In this case, check the preference and set correct configurations. When you select these “forbidden” voice synthesizer, synthesizer will create no sounds.

When mouse cursor stays a while on the drop-down menu of “Track” → “Resampler” → “UTAU”, the path of the executable file of each resampler in a pop-up menu.

### 3.3. How to change the singer

To change the singer, you can use the “singer change view” line. By adding a singer change event, the singer of the track switches at that position.

In order to add a singer change event, at first, select “Pencil” tool or “Line” tool in the toolbar; and then, double-click the lane at the switching position of the singer. Then, select the singer from pop-up menu (see figure below).



### 3.4. How to set the sample rate and the channels

These configurations are editable in the dialog which appears from the drop-down menu: “Setting” → “Sequence config”.

### 3.5. Preview playback

To start preview playback, push the “Play” button on the toolbar. Then, a dialog showing the progress of the synthesizing process will appear. When the dialog window closes and synthesis is finished, preview playback automatically starts from the song position. If “Pause” is pushed, playback will pause.

Note that the playback always starts from the song position. For example, if song position is located at the end of the sequence, playback won't start at all; because the playback will immediately stop.

“Stop” and “Pause” operation of playback can be done by shortcut keys. By default, the shortcut key is the SPACE key.

### 3.6. Saving synthesis results

To save the synthesis results as a WAVE file(s), select “WAVE” or “Serial numbered WAVEs” on “Export” under the “File” menu. When you select “WAVE” menu, the synthesis result of current track will be saved to a WAVE file. When you select “Serial numbered WAVEs”, the synthesis results of all tracks in the sequence will be saved to separate WAVE files.

## 4. In/Output the sequence to file

### 4.1. Available output file formats

#### Cadencii project format

This is the default output method.

To save with this format, select "Save" or "Save as" menu in "File" menu.

When the sequence is saved with this format, the name of the file have the extension ".xvsq", and the actual format is XML. In addition, in case of "Keep Project Cache" configuration is enabled in the preference, a directory, named "*name of xvsq.cadencii*", will be created in the same directory. In this case, ".xvsq" file and ".cadencii" directory should be saved in same directory. Therefore, be careful when copying or moving these file or directory.

#### VSQ format

This format is the default file format of VOCALOID2 editor. To save with this format, select "VSQ file" menu in "Export" menu in "File" menu.

Note that the file with this format does not have the information used in UTAU synthesizer.

#### Standard MIDI format

To save with this format, select "MIDI" menu in "Export" menu in "File" menu.

#### MusicXML file format

The MusicXML format is a xml format for music scores. In Cadencii, this format is mainly used for "Sinsy". To save with this format, select "MusicXML" menu in "Export" menu in "File" menu. The viewing track will be exported to a MusicXML file.

#### UTAU project format

To save with this format, select "UTAU project file" menu in "Export" menu in "File" menu. The viewing track will be exported to a UTAU project file.

#### WAVE format

The result of singing voice synthesis can be saved to WAVE file. If synthesis process was not finished, WAVE file will be saved after synthesis finishes. There are 3 ways to save WAVE file.

#### Save the syntheis result of the track on the display

Select "WAVE" under "Export" in the "File" menu. However, the "Current Track" must be selected in the "Sequence config" dialog<sup>3</sup>. If "Master Track" is selected in the dialog window, the WAVE file will contain the synthesis results of the other tracks.

#### Save synthesis results of all tracks in the sequence

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<sup>3</sup> see [Sequence config](#) in [6.7 "Setting" menu](#)

Select "WAVE" under "Export" in the "File" menu. However, "Master Track" must be selected in the "Sequence config" dialog<sup>4</sup>. If "Current Track" is selected in the dialog, the WAVE file will contain only the synthesis result of the viewing track.

### **Save synthesis results of all tracks into serial numbered WAVE files**

Select the "Serial numbered WAVes" menu in "Export" menu in "File" menu.

### **meta-text format for vConnect**

Select the "Metatext for vConnect" menu in "Export" menu in "File" menu. This format is for the vConnect (not vConnect-STAND) synthesizer. The track on the pianoroll will be saved to a meta-text file.

## **4.2. Available output file format**

### **Cadencii project format**

This is the default input method. To read a file with this format, select the "Open" menu in the "File" menu, and specify the file to read in the file dialog.

### **VSQ format**

There are 2 ways to read a file with VSQ format.

#### **Add track(s) in the VSQ to current sequence**

In this method, specified track(s) of the VSQ file are imported to the end of current sequence.

To execute this method, select "VSQ / Vocaloid MIDI" in the "Import" under "File", and specify the file to read in the file dialog.

#### **Create a new sequence from VSQ file**

In this method, a new sequence will be created based on a VSQ file.

To execute this method, select "Open VSQ/Vocaloid MIDI" menu under "File", and select the file.

### **UTAU project format**

There are 2 methods to read this file format.

#### **Add track in the .ust file to current sequence**

In this method, the track of the .ust file will be imported to the end of current sequence.

To execute this method, select "UTAU project file" under "Import" in the "File" menu, and select the file.

#### **Create a new sequence from .ust file**

In this method, a new sequence will be created based on the .ust file.

To execute this method, select "Open UTAU project file" under the "File"

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<sup>4</sup> see [Sequence config](#) in [6.7. "Setting" menu](#)

menu, and select a file.

### **Standard MIDI format**

In this method, note, lyric, and pitch-bend will be imported to the end of current sequence.

To import a file with this format, click “Standard MIDI” in the “Import” menu under “File” menu, and select a file.

## 5. Preference

### 5.1. "Sequence" tab

#### Resolution (VSTi)

By this configuration, the resolution of control curves (DYN, PIT, etc.) can be set in clock unit.

#### Auto Vibrato Type

Auto Vibrato is a feature to add a vibrato to new note automatically.

#### Enable Automatic Vibrato

Switches On / Off the auto vibrato feature.

#### Default Vibrato Length

Specifies the length of the vibrato (which added by auto vibrato feature) to the length of note.

#### Minimum note length for Automatic Vibrato

Vibrato will be added when the length of new note is longer than the value of this configuration.

#### Auto Vibrato Type

Specifies the type of auto vibrato. You can select to use whether the vibrato type defined in the VOCALOID Editor or the vibrato type defined by yourself. To use former case, select "VOCALOID Editor Compatible". To use latter case, select "User defined".

The vibrato types of "User defined" can be configured in other dialog<sup>5</sup>; this configuration only selects which type of them will be applied as an auto vibrato.

### 5.2. "Other" tab

#### Default Singer

Select the default singer of new track.

#### Pre-send time

A parameter of VOCALOID VSTi.

#### Waitings time

A parameter of VOCALOID VSTi.

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<sup>5</sup> see [8.3. User defined preset of vibrato](#)

## **Chase Event**

A parameter of VOCALOID VSTi.

## **Buffer Size**

A parameter of VOCALOID VSTi.

## **5.3. "Appearance" tab**

### **Font**

#### **Menu & lyrics (Windows version only )**

Select the font of the main menu by clicking the "Change" button.

#### **Screen**

Select the font of piano roll by clicking the "Change" button.

### **UI Language**

Select a language of screen message etc..

### **Track Height**

Specify the length of a lane in piano-roll.

### **Visible Control Curve**

Pick up the curve types which displayed in the "Curve type list" in control track.

## **5.4. "Operation" tab**

### **Piano Roll**

#### **Mouse Wheel Rate**

Set the sensitivity of mouse wheel.

#### **Fix Song position to Center**

If this configuration is turned on, the song position is always placed at the center of piano-roll, when auto-scroll is turned on.

#### **Horizontal Scroll when Mouse wheel**

If this configuration is turned on, piano-roll scrolls horizontally when mouse wheels.

#### **Keep Lyric Input Mode**

If this configuration is turned on, the lyric input mode (input target is ether

a phrase or lyric) is kept when entered to input mode by double-clicking a note. This configuration is not enabled when the input target of phrase/lyric is changed by TAB key.

### **Play Preview On Right Click (Windows version only)**

If this configuration is turned on, the sound can preview when the right button is clicked on a note.

### **Enable Quantize for Curve Selecting**

If this configuration is turned on, the selection region for curve point in control curve will be quantized.

### **Use space key as Middle button modifier**

If this configuration is turned on, in case you mouse doesn't have middle button, a left click with SPACE key will be regarded as a middle click. However, by default, SPACE key is assigned as a shortcut-key for the "Preview Start/Stop" feature; so you have to re-assign other key as a the shortcut-key of "Preview Start/Stop".

## **Misc**

### **Maximum Frame Rate**

The maximum refresh-rate of piano-roll is limited by the value of this configuration. The unit is frames per a second.

### **Waiting time for Preview**

If the left button is stay pushed on a note longer seconds than the value of this configuration, the sound of the note will be beeped for preview.

### **MIDI In Port Number**

The MIDI device which have a port number specified in this configuration is used as a MIDI input device.

### **MTC MIDI In Port Number**

Not used.

### **Translate Roman letters into Kana**

If this configuration is turned on, you need not input Japanese 'Hiragana' characters into phrase. For example, if you input 'ka' into input box as a phrase, they will be automatically translate into 'か'.

## **5.5. "Platform" tab**

### **UTAU Cores**

#### **wavtool**

The executable file specified in the "Path:" configuration is used as a wavtool. Input the path of wavtool directly into the text box, or push "Browse" button and select the executable file of wavtool.

The checkbox "Invoke wavtool with Wine" is only used in Macintosh version.

Check the box when the wavtool executable is Windows version. (Note: if the executable is selected by pushing the "Browse" button, the check box is automatically checked/un-checked.)

## resampler

The executable file specified in the "Path:" configuration is used as a resampler (or compatible synthesizer to resampler). The executable file can be registered more than two.

Register the executable file in the file dialog by clicking "Add" button.

Click the "Remove" button when you want to un-register the selected resampler in the list.

Click the "Up" or "Down" button when you want to up/down the resampler in the list.

Check the boxes on the left side of the list, if the executable file is Window version. (Note: The check box is automatically checked/un-checked when the executable file is selected by "Add" button.)

## Wine (Macintosh, and Linux version only)

### WINEPREFIX

This configuration specifies the directory of value of WINEPREFIX in which the VOCALOID system is installed. To find where the WINEPREFIX is in case VOCALOID was installed by MikulnInstaller, see "[8.2. How to find WINEPREFIX](#)" in "[8. Appendix](#)".

### WINETOP

This configuration specifies the directory which wine is installed.

If "built-in" is selected, built-in wine of Cadencii is used (default).

If "custom" is selected, the wine you have installed is used. In this case, input the path of install path of wine in the text box, or select the path by clicking the "Browse" button.

## 5.6. "UTAU Singers" tab

If you want to use the UTAU voice banks on Cadencii, you need to register them in this tab so that Cadencii can recognize.

Click "Add" button and select "oto.ini" file to register a voice bank. Based on the information in "oto.ini", the voice bank will be registered into the list.

If the "Remove" button is clicked, the voice bank selected in the list will be un-registered.

If the "Up" or "Down" button is clicked, the voice bank selected in the list will move up/down in the list.

## 5.7. "File" tab

### Automatic Backup

If this configuration is turned on, backup files is automatically created in the interval minutes of "interval" option.

### Keep Project Cache

If this configuration is turned on, the caches of synthesis results will be saved to a directory with extension ".cadencii" (this is default feature). This directory is always saved in same directory with ".xvsq" file. For example, the file name of the project was "foo.xvsq", the name of cache directory will be "foo.cadencii". If "foo.xvsq" is read by the "Open" menu, the contents of "foo.cadencii" will be automatically load.

## 5.8. "Synthesizer" tab

### VST Instruments

The path of dll of VOCALOID1 and VOCALOID2 is displayed in the text boxes "VOCALOID1" and "VOCALOID2". This configuration is automatically loaded, and cannot be changed.

Input the path of dll of "AquesTone" in the text box.

### Synthesizer DLL Usage

Select VSTi(s) to load at Cadencii startup.

### Default Synthesizer

This configuration specifies the default voice synthesizer system when new track is created.

## 6. Main menu reference

### 6.1. "File" menu

#### **New**

Creates a new sequence.

#### **Open**

Opens an existing sequence file with extension ".xvsq".

#### **Save**

Saves/Overwrites current sequence into a ".xvsq" format.

#### **Save as**

Saves current sequence into a new ".xvsq" format.

#### **Open VSQ/Vocaloid MIDI**

Opens VSQ file or Vocaloid MIDI file and create new sequence based on it.

#### **Open UTAU project file**

Opens UTAU project file and create new sequence based on it.

#### **Import**

##### **VSQ / Vocaloid MIDI**

Reads VSQ file or Vocaloid MIDI file and import track(s) of it and add to the end of current sequence.

##### **Standard MIDI**

Reads standard MIDI file and import track(s) of it and add to the end of current sequence.

##### **UTAU project file**

Reads UTAU project file and import a track of it and add to the end of current sequence.

#### **Export**

##### **WAVE**

Outputs the synthesis results to a WAVE file. In this export method, generated WAVE file contains the synthesis results of other track(s) if "Master Track" is selected in the "Sequence config" dialog.

### **Serial numbered WAVE**

Outputs the synthesis results of all tracks to serial numbered WAVE files. The name of files will be "1.wav", "2.wav", ..., and so on. The format of WAVE file can be configured in the "Sequence config" dialog.

### **VSQ File**

Outputs current sequence into VSQ format.

### **MIDI**

Outputs current sequence into standard MIDI file.

### **MusicXML**

Outputs current track on the piano-roll into MusicXML file.

### **UTAU project file**

Outputs current track on the piano-roll into UTAU project format.

### **Metatext for vConnect**

Outputs current track on the piano-roll into meta-text for vConnect synthesizer.

## **Open Recent**

The list of files recently used is displayed. If the letters are grayed out, that means the file cannot be found. The full path of them can be seen in the tooltips.

## **Quit**

Quit Cadencii.

## **6.2. "Edit" menu**

### **Undo**

Revises to the previous edit state.

### **Redo**

Redo the undo-ed operation.

### **Cut**

Cuts the selected items into clipboard.

### **Copy**

Copies the selected items into clipboard.

### **Paste**

Pastes the item(s) in the clipboard onto the song-position.

## **Delete**

Deletes the selected items.

## **Auto Normalize mode**

If this menu is checked, polyphonic notes are automatically corrected into monophonic.

## **Select All**

Selects all notes, and data points of control curve overlap with these notes.

## **Select all events**

Selects all notes.

# **6.3. “View” menu**

## **Control track**

Changes whether control track is visible or not.

## **Mixer**

Changes whether mixer window is visible or not.

## **Waveform**

Changes whether waveform view is visible or not.

## **Icon palette**

Changes whether icon palette window is visible or not.

## **Property window**

Changes whether property window is visible or not.

## **Navigation**

Changes whether navigation area is visible or not.

## **Grid line**

Changes whether the grid line for quantize unit is visible or not.

## **Start marker**

Changes the On/Off of start marker.

## **End marker**

Changes the On/Off of end marker.

### **Lyrics / Phoneme**

Changes whether phrases and phonetic symbols are displayed or not on the piano-roll.

### **Note expression / vibrato**

Changes whether wavy lines of vibrato and attack are displayed or not on the piano-roll.

### **Pitch line**

Changes whether the pitch lines is displayed or not on the piano-roll.

## **6.4. “Job” menu**

### **Normalize notes**

Automatically corrects the polyphonic notes into monophonic.

### **Insert bars**

Inserts a bar into the song-position.

### **Delete bars**

Deletes a bar on the song-position.

### **Randomize**

Randomizes the position, length and pitch-bend of notes.

### **Connect notes**

Corrects the length of selected notes to be successive to latter notes.

### **Insert lyrics**

Import lyrics into selected notes from clipboard etc..

## **6.5. “Track” menu**

### **Track on**

Changes whether the track on the piano-roll is muted or not.

### **Add track**

Creates a new track and add to the end of current sequence.

## **Copy track**

Creates a copy of viewing track and add to the end of current sequence.

## **Reneme track**

Changes the name of viewing track.

## **Delete track**

Deletes the viewing track.

## **Render current track**

Forces synthesis process about the viewing track.

## **Render all tracks**

Forces synthesis process about all tracks in the sequence.

## **Overlay**

Changes whether the notes of other tracks is displayed together with the viewing track.

## **Renderer**

Changes the voice synthesis system. Select the synthesis system in the drop-down menu in this menu you want.

## **BGM**

Set the configuration of BGM. Click the “Add” button and select the WAVE file.

## **6.6. “Lyrics” menu**

### **Note expression property**

Opens a dialog to configure the attack (VOALOID1), portamento, decay, and accent (VOCALOID2) of selected notes.

### **Note vibrato property**

Opens a dialog to configure the vibrato of selected notes.

### **Apply UTAU Parameters**

Resets the UTAU parameters of selected notes into the value in the defaults of voice bank.

### **Phoneme transformation**

Changes the phonetic symbols to match with the phrases of the selected notes.

## **User word dictionary**

Opens the dialog to configure the user word dictionary.

## **Copy vibrato config to preset**

Copies the vibrato configuration of selected note into user presets vibrato. The presets of vibrato can be created with the dialog by clicking the “Vibrato preset” menu in the “Setting” menu.

# **6.7. “Setting” menu**

## **Sequence config**

Opens the dialog to configure the number of channels, the sample rate of WAVE file, and pre-measure of the sequence.

## **Quantize**

Quantize feature correct the length and position to be the multiple clocks of specified unit length in this configuration value.

## **Shortcut key**

Opens the dialog to configure the shortcut-keys.

## **Vibrato preset**

Opens the dialog to prepare and configure the user defined vibrato presets.

## **Singing style defaults**

Opens the dialog to configure the default values of new created notes.

# **6.8. “Window” menu**

## **Minimize**

Minimizes the window.

# **6.9. “Help” menu**

## **Manual (PDF)**

Opens the PDF manual.

## **Log**

Configures about the debug logging.

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The debug logging is enabled when the menu is changed to "Enabled".  
The log file opens when the "Open" menu is clicked.

## 7. Synthesis process in Cadencii

### 7.1. Overview

The synthesis results are saved as WAVE files into cache directory for all tracks in default FEDER and PAN. At preview time, these cache files are mixed and previewed via speakers.

When rendering of a track is required, rendering regions are automatically detected for re-synthesize, and re-synthesize will be executed. This process is different to UTAU editor; Cadencii need not to select the rendering region manually.

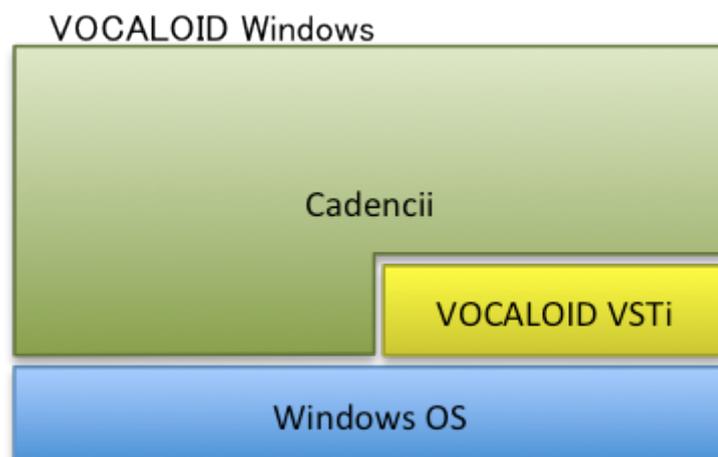
### 7.2. Detection of re-synthesis region

The change of phrase, phonetic symbols, and voice synthesis system of track, and so on will be detected as re-synthesis regions. The change of tempo, and insert/delete of bars are also detected. On the other hand, change in mixer dialog (feder, pan, and mute) won't be considered.

### 7.3. The details of synthesis process (Windows)

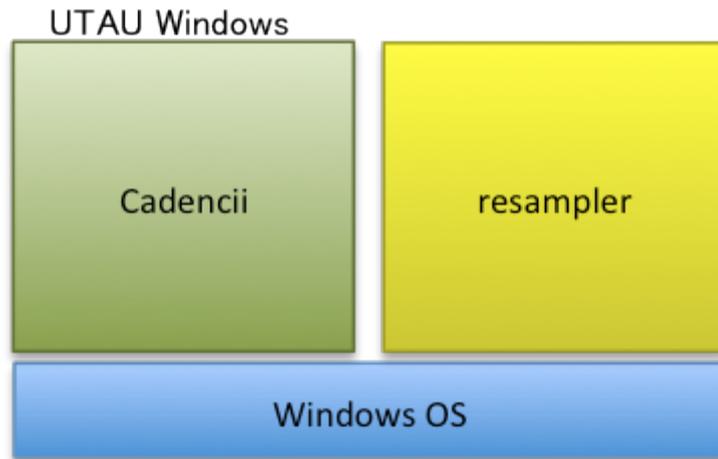
#### VOCALOID

The VSTi DLL of VOCALOID1 or VOCALOID2 are loaded directly to the process of Cadencii. The figure below shows the conceptual diagram.



#### UTAU

Cadencii behaves roughly the same as the UTAU editor which doesn't load dll. Cadencii generates temporary files (temp.whd and temp.dat) not through the whole sequence but through the series of connected notes in a track. The figure shows the conceptual diagram.

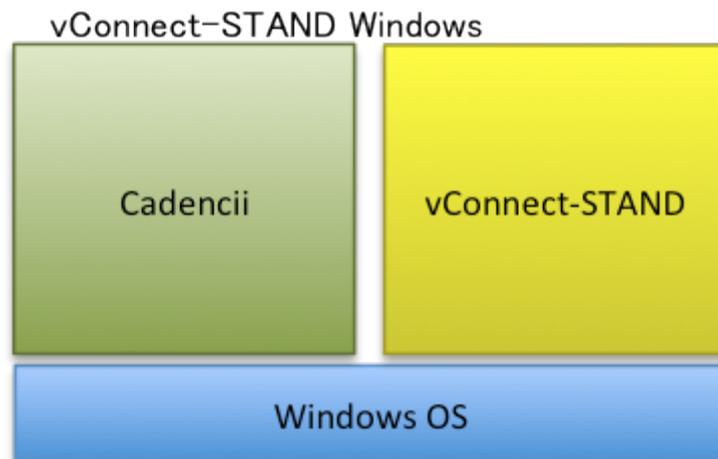


### AquesTone

The VSTi DLL is loaded to the process of Cadencii. This behavior is similar to the case of VOCALOID. The conceptual diagram is also similar to VOCALOID.

### vConnect-STAND

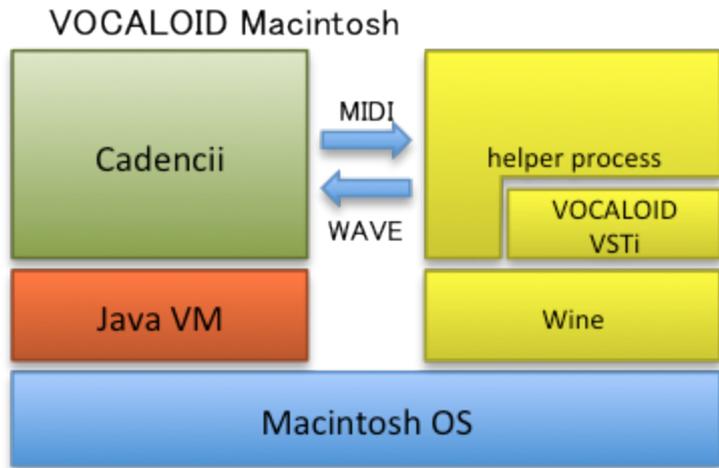
The vConnect-STAND synthesizer is called for a series of notes in a track. The figure below shows the conceptual diagram.



## 7.4. The details of synthesis process (Macintosh)

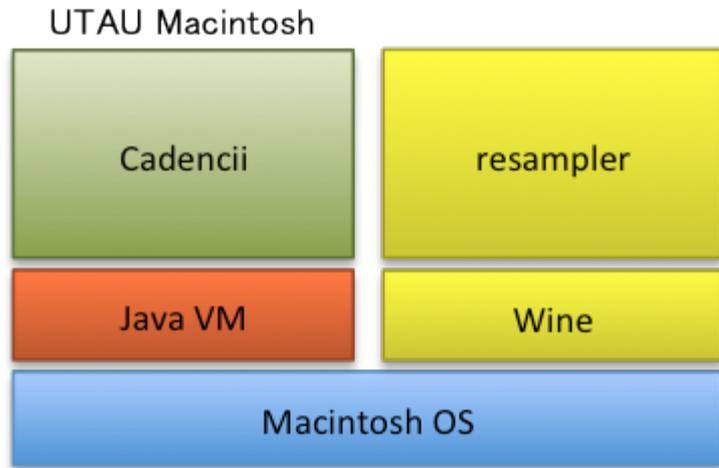
### VOCALOID

The VSTi DLL is not loaded directly to the process of Cadencii. Instead, the helper process which loads VSTi DLL is loaded through wine. This helper process is purely Windows executable. The figure below shows the conceptual diagram.



## UTAU

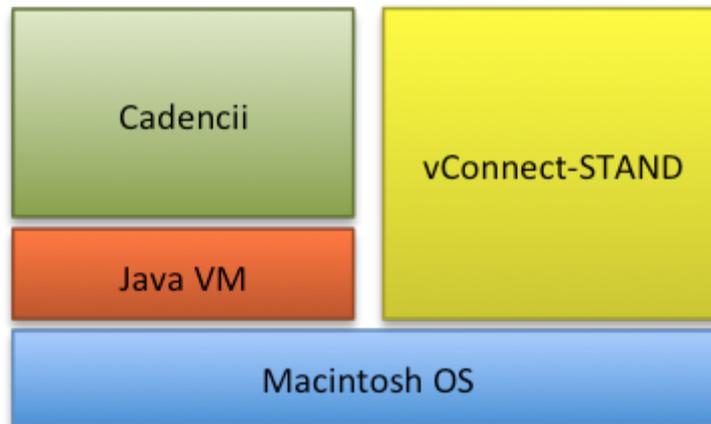
The synthesis process is roughly similar to the case of Windows. The figure below shows the conceptual diagram.



## vConnect-STAND

The synthesis process is roughly similar to the case of Windows. The figure below shows the conceptual diagram.

vConnect-STAND Macintosh



## 8. Appendix

### 8.1. How to use game-pad (Windows only)

#### Connect a game-pad

At first, connect your game-pad to computer, and click the “Load” menu in the “Game controller” menu in the “Setting” menu.

#### Configuration

In order to configure the game-pad, click the “Preference” menu in the “Game controller” menu in the “Setting” menu. Then a dialog to configure the button of game-pad. Push the buttons of game-pad, as the dialog shows.

#### Abstract of function modes of game-pad

There are two modes for game-pad. The first mode is “Normal” mode to control the “Play” and “Pause” operation, and to move the song position by cross button. The second mode is “Play” mode to use the game-pad as a keyboard to play the tone. These two modes can be changed by the “start” button of the game-pad.

#### “Normal” mode

The song position moves by clicking the cross button of the game-pad. If up/down buttons of the cross button are pushed, the piano-roll scrolls up/down.

If the “○” button is pushed, preview playback starts/stops.

#### “Play” mode

The tones of “do”, “re”, “me”, “fa”, “so”, “ra”, “ti”, and “highg do” will be played when the “↓”, “←”, “↑”, “→”, “□”, “△”, “○”, “X” buttons are pushed. If “L1” or “L2” key is pressed with these keys, the pitch of the sound raises or downs semitone. If “R1” or “R2” key is pressed with these keys, the pitch raises or downs an octave.

### 8.2. How to find WINEPREFIX (Macintosh only )

Take following steps.

- a. Launch MikulnInstaller.
- b. Click the “環境設定” menu of main menu of MikulnInstaller.
- c. Select prefix which you used in installing VOCALOID from the list in the “WINEPREFIX” tab. (by default the prefix named “default” is used)  
If you don’t remember the prefix you had used when installing VOCALOID, research it by the following steps.
  1. Select one of the prefix in the “WINEPREFIX” tab, and click the “C: ドライブをFinderで開く” button.
  2. If the directory named “VOCALOID” is found under “drive\_c/Program Files”, the prefix selected above can be estimated to had been used in installing VOCALOID.

- d. Select “情報” tab and check the value of “WINEPREFIX”; the value is just the WINEPREFIX should be copied to the preference dialog of Cadencii.

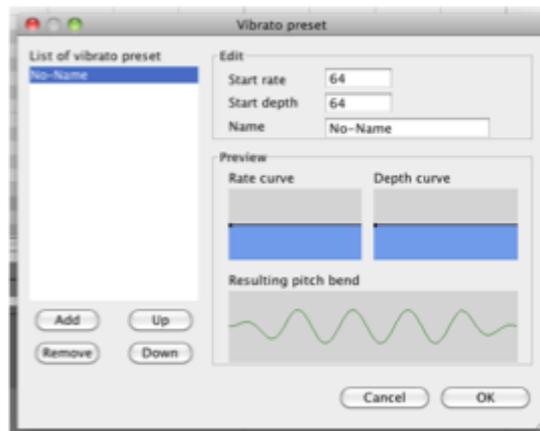
## 8.3. User defined preset of vibrato

### Abstract

The VOCALOID editor has some presets of vibrato. we can select and apply them to note. Adding to this feature, Cadencii itself has a preset system of vibrato.

### Prepare preset

Open the dialog by clicking “Vibrato preset” menu in “Setting” menu. (see the figure below)



The list on the left side displays the presets already created. The right side of the dialog is for editing and previewing the preset selected in the list on the left.

Click “Add” button to create a new preset and edit the name of preset, start rate, and start depth. The “Rate curve” and “Depth curve” in the “Preview” area cannot be edited. At this time, click “OK” button to close the dialog.

Next, input a note to piano-roll, and edit Rate curve and Depth curve. If you have finished editing these curves, copy them into a preset you had prepared in the dialog by the following steps. 1, select the note you had edited the curves. 2, select and click the name of preset in the drop-down menu in “Copy vibrato config to preset” menu in “Lyrics” menu. 3, confirm that the Rate and Depth curves are correctly copied into the preset by the preview area in the “Vibrato preset” dialog.

### Apply to note

Open the vibrato dialog by double-clicking the wavy line under the note. Select “User defined” and click the name of preset from the “Vibrato Type” combo box. Click “OK” button to apply the vibrato preset.

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The preset of user defined vibrato can be applied to note by editing “Vibrato” field in the property editor. However, in this case, “User defined” should be selected in the preference dialog<sup>6</sup>.

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<sup>6</sup> 「5.1"Sequence" tab」の「自動ビブラートの種類」の設定項目（p. 23）