Voidol3R User Guide

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1. Introduction

If you wish to use this software in your company, you need to sign a Commercial License Agreement separately. Please refer to End User License Agreement for details.

If you have any questions, please contact us from this page.
https://crimsontech.jp/rcvoice_sales/

(1) Trademarks
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・Voidol is a trademark of CRIMSON TECHNOLOGY, Inc.
・Described company name and product name in this guide are the registered trademarks or trademarks of each company.

(2) Note to use Voidol3
・The product and specifications described in this guide are subject to change without notice due to product improvements.
・Also, we have made every effort to complete the contents of this guide, but if there are any omissions, errors, or updates needed, please contact us at (https://crimsontech.jp/about-us/contact/?lang=en).
・Please note that we are not responsible for the effects of the operation results caused by any of the items mentioned above.

(3) AI Mode & SYNTH Mode Recommended audio environment

	Recommended OS environment	Recommended Audio Environment
Windows	Windows 10 (64bit) or the later version	Using an Audio Interface with a Dynamic Microphone
macOS	macOS Catalina or the later version	Using an Audio Interface with a Dynamic Microphone

* If you use the built-in speaker / microphone without an audio interface,
Please be sure to use earphones or headphones so as not to cause feedback noise when you use built-in speaker / microphone.

2. Features

This chapter describes the functions of Voidol3R.

The following items are included in this chapter.
(1) Audio Setting Screen
(2) Features of Voidol3R main screen

*If you want to know how to use Voidol3R quickly, please see 3. Audio Environment Settings and 4. How to Use Voidol3R.

(1) Audio Setting Screen

Audio Setting

(1) Settings	The screen switches from the settings screen to the main screen.
(2) Change the order of voice models	Click the arrows to change the voice model order.
(3) Change the order of narrators	Click the arrows to change the narrator order.
(4) Uninstall the voice model	It is possible to uninstall voice models other than bundles.
(5) Add voice model	Add voice models sold separately by dragging and dropping.
(6) Audio Device Setting	Select and configure the driver type and device to be used for input and output. In the case of macOS, the display is a little different. For details, please check "3. Setting the audio environment".
(7) Active Input channels	Check the input you want to enable when using Voidol3.
(8) Selection of Sample rate and Audio buffer size	The sampling rate and buffer size can be set. Increasing the buffer size increases stability at the expense of increased audio latency. The setting has some difference in macOS and Windows.
(9) Setting the output for streaming	Sets the audio to be sent to the conference system or distribution software. When you select the buffer size from "Low Latency", "Normal", or "Stable", the parameters from (10) to (12) will be automatically shown. If you want to set your favorite value, select "Custom" and make the settings by yourself. In addition, in the case of macOS, it is necessary to install a virtual driver such as VB-CABLE. For details, please check "5. Recording and Streaming / (2) Streaming while using Voidol3R / macOS".
(10) Setting the Voidol buffer size	Sets the virtual driver's internal buffer size of the virtual audio driver "Voidol Audio"(Windows Only). Increasing the buffer size increases stability at the expense of increased audio latency. The setting has some difference in macOS and Windows.
(11) Audio buffer size setting	Sets the buffer size for passing streaming audio to the virtual driver.
(12) Setting the buffer size inside Voidol	Sets the buffer size to synchronize audio processing for monitoring and audio processing for streaming output.
(13) Designation of conversion destination for recorded audio	Specify the location to save the recorded audio.
* The display of (6) to (12) differs depending on the OS and audio device used.	

(2) Main screen
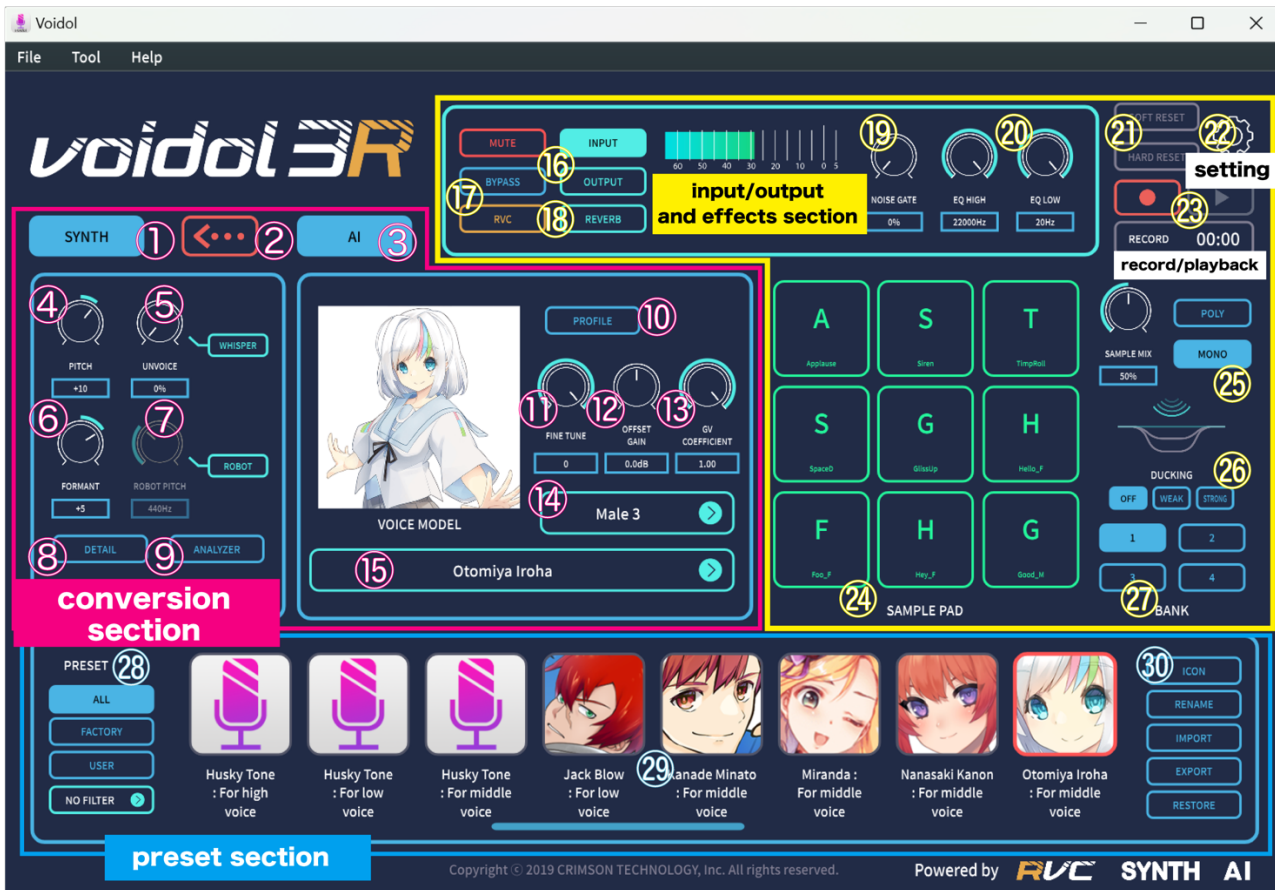
Conversion Section	
(1) SYNTH Mode	Turns SYNTH Mode ON/OFF.
(2) Toggle switch	Turns the routing for AI Mode and SYNTH Mode.
(3) AI Mode	Turns AI Mode ON/OFF.
(4) Pitch	Adjust the pitch of the output voice.
(5) Unvoice	It is possible to adjust the degree of hoarseness of the voice. By turning on "WHISPER", the voice will be output in a whisper.
(6) Formant	Adjust the formant value.
(7) Robot pitch	By turning on the "ROBOT" button, the robot-like voice is converted. You can change the pitch in the parameters.
(8)DETAIL	Displays the DETAIL screen in SYNTH Mode. For details > "4. How to Use Voidol3R - (3) About Voidol3R SYNTH Mode - b. Using DETAIL screen "
(9)ANALYZER	Display the SYNTH Mode conversion analysis screen. For details > "4. Using Voidol3R - (3) About Voidol3R SYNTH Mode - c. About ANALYZER screen"
(10) Profile	Redirected to the character's profile page.
(11) Fine Tune	Change the pitch of the input audio for each narrator
(12) Offset gain	Adjust the volume for each voice model.
(13) Adjustment of GV coefficient	The GV coefficient can be adjusted. If distortion is a concern in the treble, adjusting this parameter may improve it.
(14) Narrator type	Select a narrator for the selected voice model
(15) Voice model selection	Choose the character you want to convert to.

Input/output and effects section	
(16) Input/output meter display and setting	With INPUT, Check input level. Click OUTPUT to switch to the output level meter. With OUTPUT, Adjusts the output audio as follows. MONITOR: Adjusts the output volume of the device selected in Audio Device Setting. STREAMING: Adjusts the output volume of the device selected in Streaming Output.
(17) Mute/Bypass/RVC	MUTE...Click to mute the output audio. BYPASS...Click to output the audio before conversion. RVC... RVC Mode will start up. For detailed instructions, refer to the user guide included with the RVC Mode.
(18) Reverb Effect	Choose a reverb effect.
(19) Noise Gate	Noise around the microphone can be reduced.
(20) EQ (High/Low)	High...Fine adjustment of treble Low... Bass range can be fine-tuned
(21) Hard reset/Soft reset	SOFT RESET: Resets the internal audio of the Voidol itself. HARD RESET: Resets the audio device that is being used. If the device has been used for a long time and has started to generate noise, these resets may solve the problem. (This is not a function to reset the parameters set on the Voidol.)
(22) Audio preferences	Switches from the main screen to the settings screen.
(23) Recording and playback	Start recording by clicking the red icon on the left. (Click again to stop recording) The recorded sound source is saved in the folder specified in the preferences. Press the play button on the right to play the previous recorded sound source.
(24) Sample Pad	Click to play registered audio such as sound effects or background music. To register a new sound source as a sample, drag and drop a wav or mp3 audio file onto the pad. Also delete a registered sample by clicking on the pad while holding down the Ctrl key in Windows or the Command key in macOS.
(25) Sample mix settings	SAMPLE MIX... Adjusts the volume of mixed sound effects and background music. POLY/MONO... When POLY is selected, multiple sample pads can be played at the same time. When MONO is selected, only one sample pad sound source can be played.
(26) Ducking function	When playing BGM using the sample pad, the volume of BGM can be automatically lowered according to the volume of the voice by using this ducking function. Select "Weak" to lower the volume weakly and select "Strong" to decrease the volume strongly.
(27) Sample Bank	It is possible to register 9 audio files in 4 banks.

Presets section	
(28) Preset settings	ALL...View all presets. FACTORY... View pre-built presets. USER... It is possible to create user-original presets. The presets you have created are displayed in the list. FILTER...Filtering the presets displayed in the list
(29) List of presets	A list of presets is displayed according to the setting of (28).
(30) Preset editing and saving	Edit and save the selected preset. ICON... Change preset icon image. RENAME... Rename a preset. IMPORT... Import presets from your computer. EXPORT... Save preset settings to your computer. RESTORE... Restores the selected preset to the default settings of the software. * For user-original presets, the RESTORE function cannot be used. The DELETE function is available.

3. Audio Environment Settings

This chapter describes the audio setting of Voidol 3R.
Refer to the user guide included with the RVC Mode for how to set the RVC Mode.

The following items are included in this chapter.
(1) Setting Audio Device Type in AI Mode & SYNTH Mode
(2) Select Active input channels in AI Mode & SYNTH Mode
(3) Setting Sample rate and Audio buffer size in AI Mode & SYNTH Mode

To obtain the best audio conversion results, using an audio interface and a dynamic microphone is recommended.
If you want to use the software for streaming, please refer to the chapter 5. Recording and Streaming.

(1) Setting Audio Device Type in AI Mode & SYNTH Mode

First, you need to make setting of Output / Input.
There is a difference in macOS and Windows, please check the case for each OS.
○ Windows
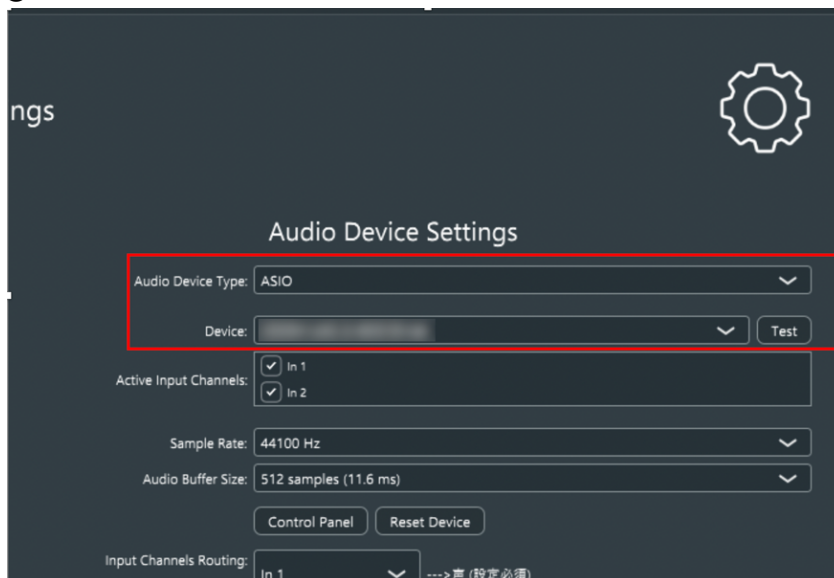
Windows users can select the driver you use from "Audio Device Type" section.
In the case you choose ASIO driver, please select the audio device you use on "Device" section.

※The setting without Audio Interface:
Please select the driver such as Windows Audio and DirectSound and apply the following settings: "output →
built-in output" or "input → built-in microphone".
Please be sure to use earphones or headphones so as not to cause audio feedback and unpleasant noise when
you use built-in speaker / microphone.

※When using ASIO, Input / Output can't be separated. If you want to make setting of Input / Output separately,
please select the driver such as Windows Audio and DirectSound. (DirectSound's sound quality is inferior to
Windows Audio) To set Input / Output separately, you need to set the same sample rate for both Input and
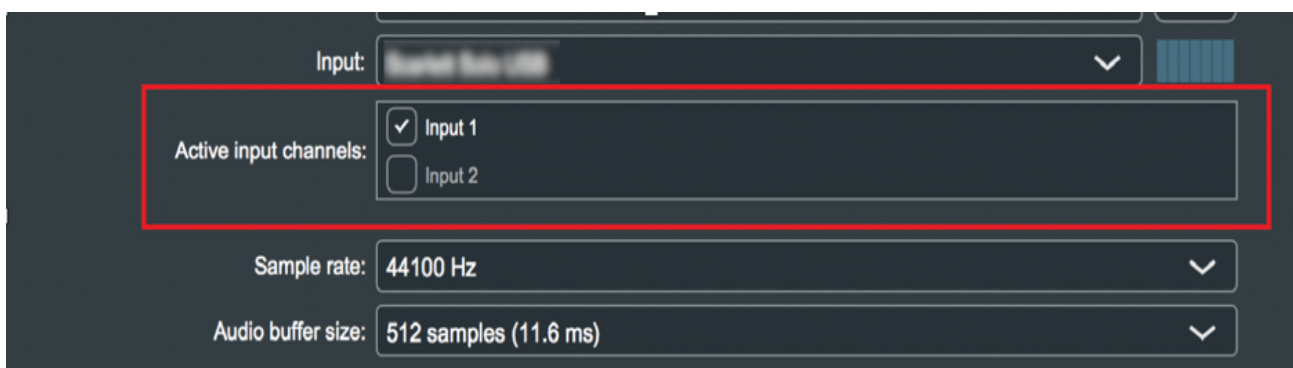Output on PC setting.

○ macOS

Please select the audio device you use from the "Output" and "Input" menu. If you use an Audio Interface,
please select the name of the device.
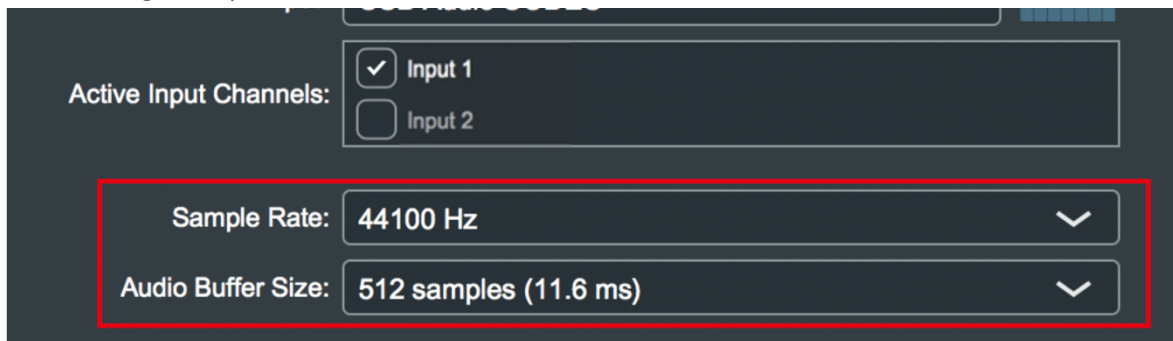※The setting without Audio Interface: "output → built-in output" or "input → built-in microphone".

(2) Setting Active Input Channel in AI Mode & SYNTH Mode

Next, you need to select the channel that you want to enable.
If you don't select any channel in this section, the microphone sound will not come to Voidol input.

(3) Setting Sample Rate and Audio Buffer Size in AI Mode & SYNTH Mode

Basically, there are no problems with the default setting, but you can change the values of Sample rate / Audio buffer size to suit your own preferences and PC specifications.

○ For Windows Users
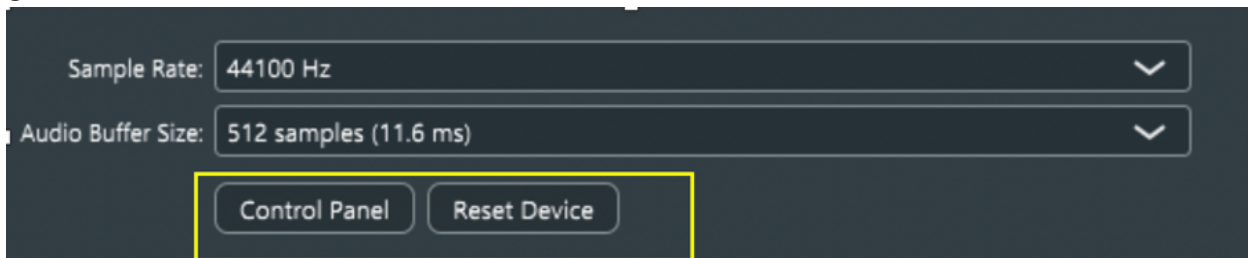
 When using ASIO driver, you can use control panel of the Audio Interface.
Control Panel: ASIO Setting window is opened, and you can make detailed setting of Audio Interface on the control panel.
 Reset Device: Device setting will be reset.

4. How to Use Voidol3R

This chapter describes how to use Voidol3R voice conversion.
The following items are included in this chapter.

(1) Voidol3R conversion system

(2) Voidol3R AI Mode

(3) Voidol3R SYNTH Mode

(1) About Voidol3R conversion system

a. What you can do with Voidol3R

In Voidol3R, you can use the AI Mode (conversion to the specific character's voice) and the SYNTH Mode (adjusting each parameters to create your favorite voice) at the same time.
You can make your voice expression more creative.
Please refer to the following process and use it with your favorite settings.

(i) When using AI Mode/SYNTH Mode alone
・AI Mode alone

・SYNTH Mode alone

(ii) When using AI Mode and SYNTH Mode at the same time
・Conversion from SYNTH Mode to AI Mode

・Conversion from AI Mode to SYNTH Mode

Examples of use

・ Convert the male voice with female narrator type

Settings: Change your voice into a feminine voice with SYNTH Mode and then combine it with an AI Mode conversion model with a female narrator type. (The setting can make the converted voice more natural)

・ Convert the voice of your favorite character into a whisper voice

Settings:　Select your favorite character in AI Mode and then select "Whisper" in SYNTH Mode.
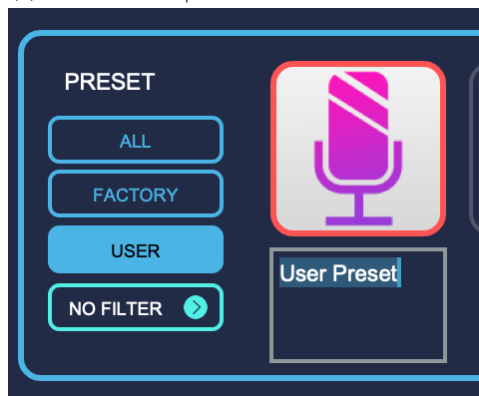
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b. Saving Preset Voices

Voidol3R offers a variety of existing preset voices, but you can also register your own favorite parameters and voice models as new preset voices.
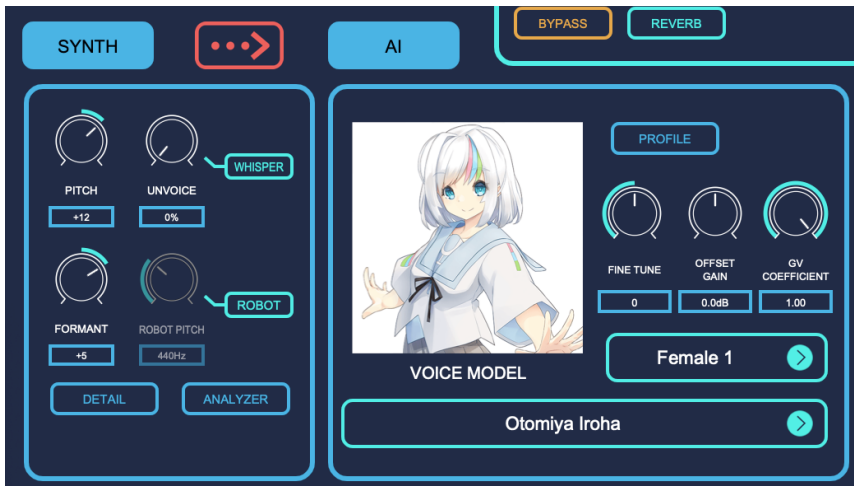

(i) Select USER from "PRESET"


(ii) Add a new preset from "USER"

(iii) Set the parameters to your preferred values

* In the image above, SYNTH > AI conversion is selected, and the given SYNTH configuration increases the pitch of the voice to make it more feminine, then it is converted using the Female 1 model of "Otomiya Iroha".

(iv) Saving and loading new preset models

With "EXPORT", you can save the preset voices you created to a specified folder on your computer.
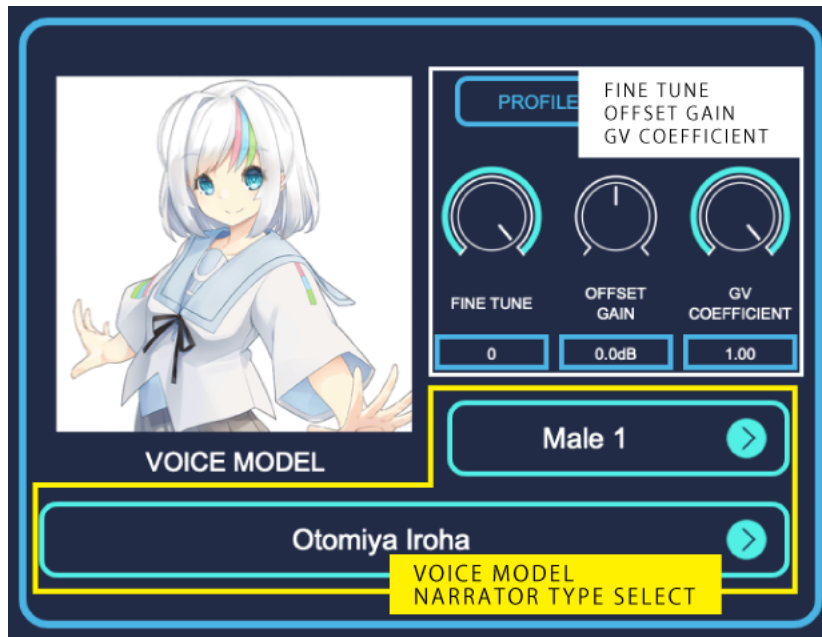Saved preset models can be imported from "IMPORT".
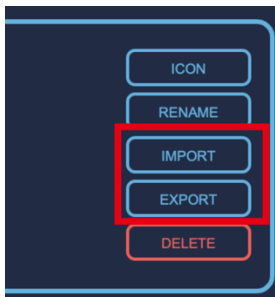
(2) About Voidol3R AI Mode

a. Using AI Mode

(1) Select voice model and narrator type

Select the character you want to use and choose the narrator type that matches your gender and voice quality. You can also adjust the fine tune, offset gain, and GV coefficient as needed.

(2) Confirmation of output audio

You can set OUTPUT parameter to adjust the volume of MONITOR output and STREAMING output.
To avoid clipping, adjust the volume of your voice while checking the level meter.

The STREAMING parameter sets the volume sent to the virtual driver "Voidol Audio". (＊)
Audio can be sent to capture software such as web conferencing systems and OBS.
The virtual driver "Voidol Audio" is included only with the Windows version. (Automatic installation)
The macOS version requires a separate virtual driver from another company, such as VB-CABLE.
In the macOS version, the OUTPUT meter does not work unless the Streaming Device is set.

b. How to add a new voice model

For details on how to add a voice model sold separately, please refer to the document included with each product.

(3) About Voidol3R SYNTH Mode

a. Using SYNTH Mode

The following describes the main parameters for voice conversion on the SYNTH Mode main screen.

・Pitch

The pitch of the sound can be changed in the range of -36 to +36. This is the most common parameter in voice changers.
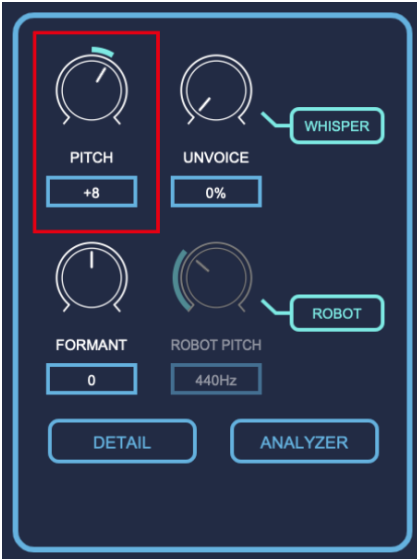

・Formant

This parameter allows you to change the formant, a specific frequency range that characterizes a certain voice in the spectrum analysis of voice, in the range of -12 to +12. By changing this parameter, it is possible to significantly change the atmosphere of speech with the same pitch.

・Unvoice

By increasing the value, you can adjust the degree of unvoicing. It also helps to reproduce a so-called death voice. Clicking the "WHISPER" button will output the voice as a whisper.
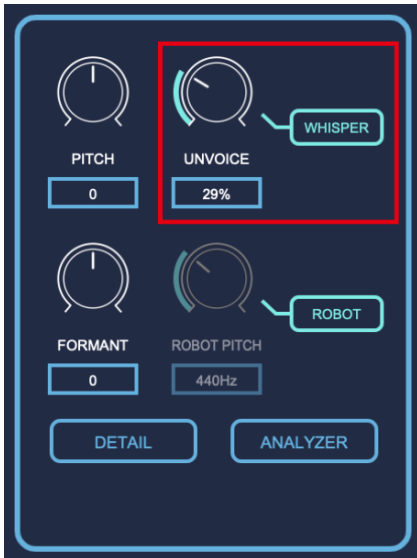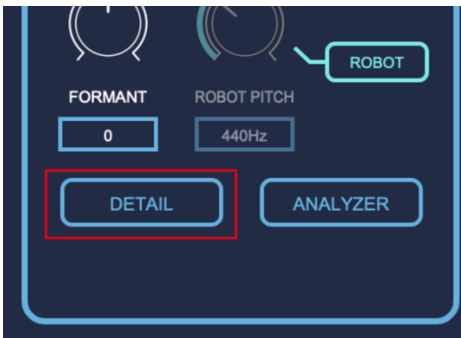
・Robot pitch

Clicking on the "ROBOT" button will instantly change the voice to a robot voice with a constant pitch, which can be adjusted between 75Hz and 1200Hz.

(b) Using DETAIL Screen

By clicking "DETAIL" on the SYNTH Mode, the detail setting screen is displayed, where you can make more advanced settings.

You can check each functions of Detail screen in the following description.
The parameters set in this screen can be reset by selecting "RESTORE" from the Voidol SYNTH main screen.
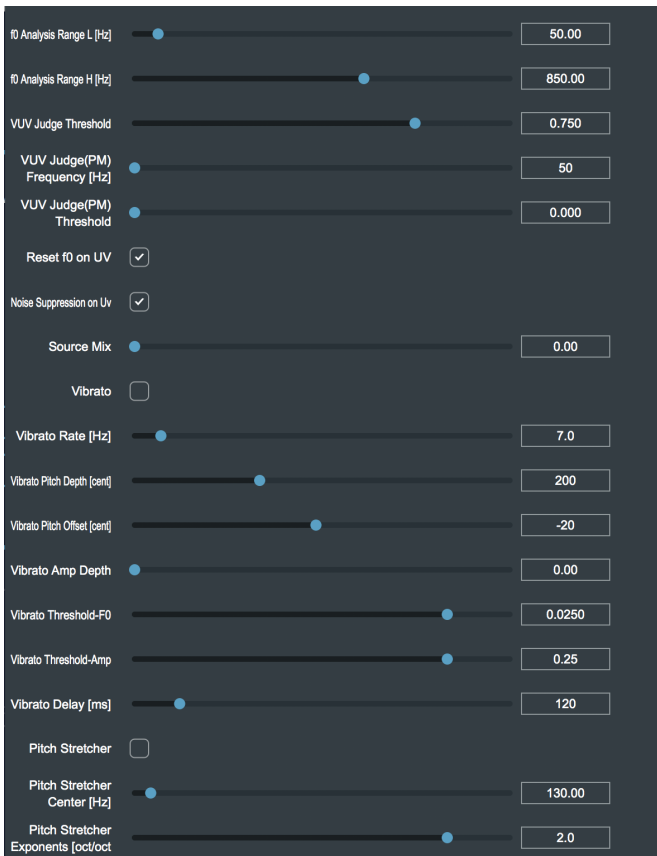
●About SYNTH Mode - DETAIL Screen (1)

Name	Function
Coarse Tune	Pitch change (in semitones)
Fine Tune	Pitch change (fine adjustment)
Fixed Pitch Mode	If this parameter is on, the Pitch parameter is ignored and the voice is synthesized at the fixed pitch set by Fixed Pitch.

| Fixed Pitch [Hz]	Fixed pitch, used when Fixed Pitch Mode is on. (Variable pitch when set to 80)
Formant	Important parameter that greatly affects the modification of voice characteristic. (Adjustment of the weight of voice)
Formant Doubling Offset [cent]	Formants will be doubled at the offset set by this parameter.
Formant Doubling Balance	The mixing ratio of a doubled formant.
Formant Center [Hz]	Center pitch of formant
Formant Slope [cent/oct]	The amount of shift of the formant scaling factor
Unvoice	Extent of unvoicedness.
Whisper Mode	The whisper voice is generated in this mode. (Unvoice & Whisper parameter is ignored)
Whisper	Whispers (When set to 1.0 with Unvoice, whisper voice is generated.
Quantization	Pitch Quantize (a function that changes the pitch in steps of semitones)
Quantization Detection Length [ms]	Detection interval to enter Quantization mode.
Quantization Hold Length [ms]	Quantization mode hold time
Note 69 Pitch	Note 69 pitch (Standard pitch)
Octave Adjust	Octave adjustment for pitch out of synthesis range
Synthesis Range L [Hz]	Lower limit pitch that can be synthesized
Synthesis Range H [Hz]	Upper limit pitch that can be synthesized
Simulated Radiation	Formant shifting considering radiation characteristics (of lip)

| Pitch Stretcher Exponents | Amplification and attenuation of the Pitch Stretcher function (1: no change, minus: inversion) |

(c) About ANALYZER screen
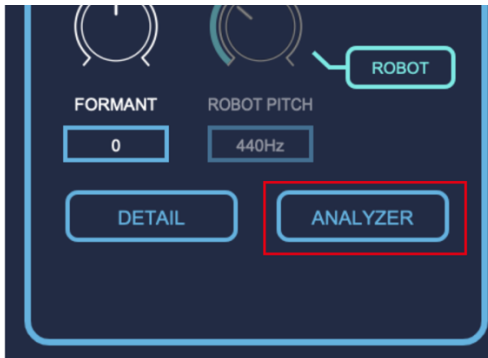
By clicking "ANALYZER" on the main screen of SYNTH Mode, you can see the analysis screen for the audio information processed by SYNTH Mode. In the ANALYZER screen, you can monitor each parameter of audio information and can set parameters such as f0 (detected speaker's pitch) and formant.
The following describes the monitoring and setting functions of the ANALYZER screen separately.
(Since the ANALYZER screen requires a lot of CPU power, we recommend that you do not use it for normal conversion.)

◯Monitoring function
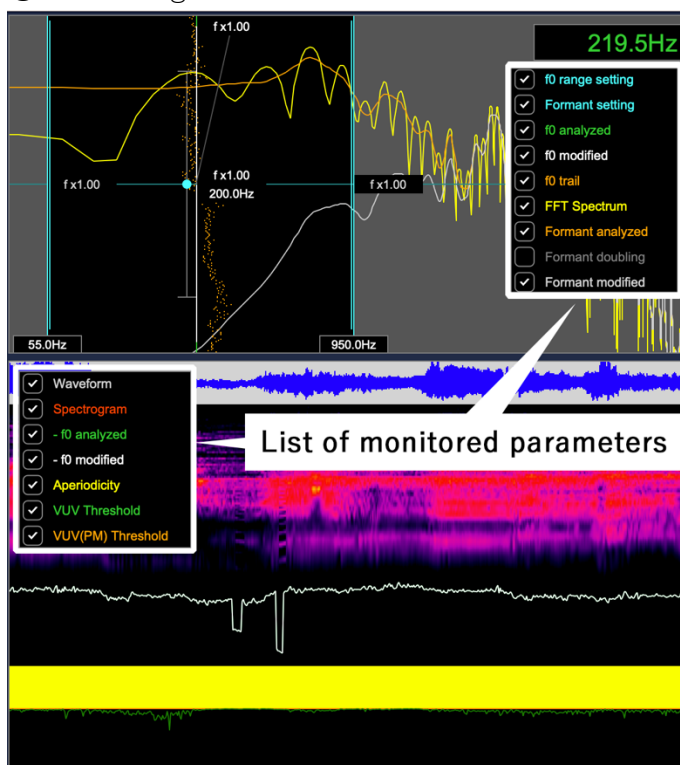
The details of each parameter are shown below. The display of each parameter can be switched on or off by clicking the checkbox on the left.

| Parameter Name	Detail
f0 range setting	The range of f0 change can be set on the screen.
Formant setting	The formant value can be set on the screen.
f0 analyzed	f0 value of the audio before conversion is displayed.
f0 modified	f0 value of the converted audio is displayed.
f0 trail	Trajectory of f0 over time

FFT Spectrum	The spectrum analyzed with FFT.
Formant analyzed	Formant value of the audio before conversion
Formant doubling	Formant generated by doubling
Formant modified	Formant value of the converted audio is displayed.
Waveform	Waveform of the audio before conversion is displayed.
Spectrogram	The frequency spectrum of the converted audio is displayed.
-f0 analyzed	Detected speaker's fundamental frequency (pitch)
-f0 modified	Fundamental frequency (pitch) of the converted audio
Aperiodicity	The range of aperiodicity (noise components) is indicated.
VUV Threshold	Threshold value that distinguishes between noise and pitched speech is displayed.
VUV(PM) Threshold	Threshold value to distinguish between noise and pitched voices by judging sound pressure is displayed.

○Parameter Setting Function

In the ANALYZER screen, you can also set the parameters of the f0 range setting and Formant setting. It is recommended to use these settings for conversion with less noise.

・Setting f0 range parameter
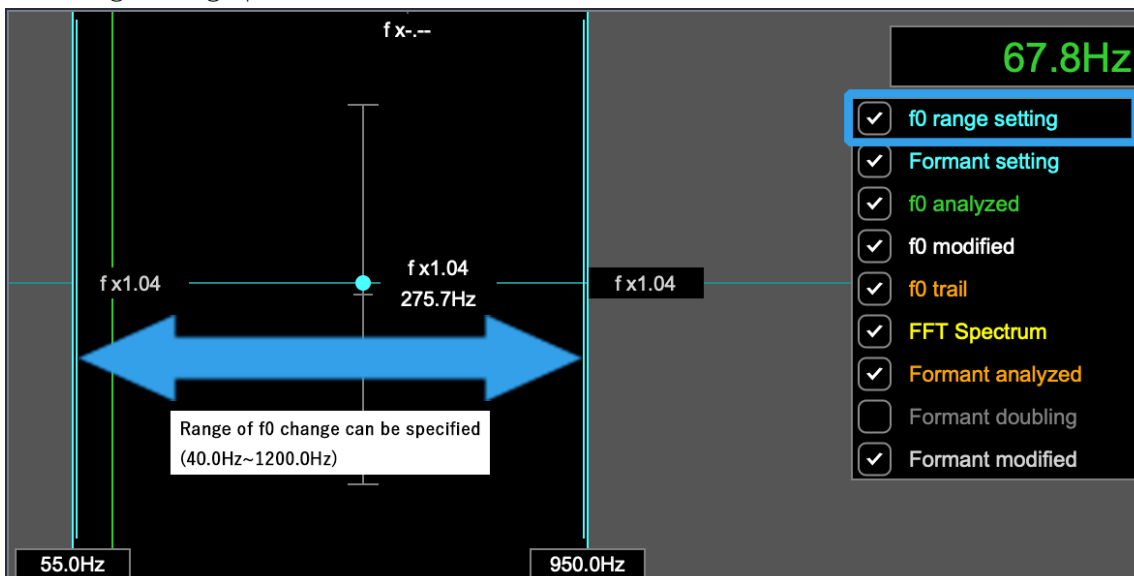
By moving the light blue bars on the left and right of the above image arrows, you can adjust the range of the f0 change. By keeping the lowest and highest tones of the speaker within the range, good quality conversion is possible.

・Setting formant parameter
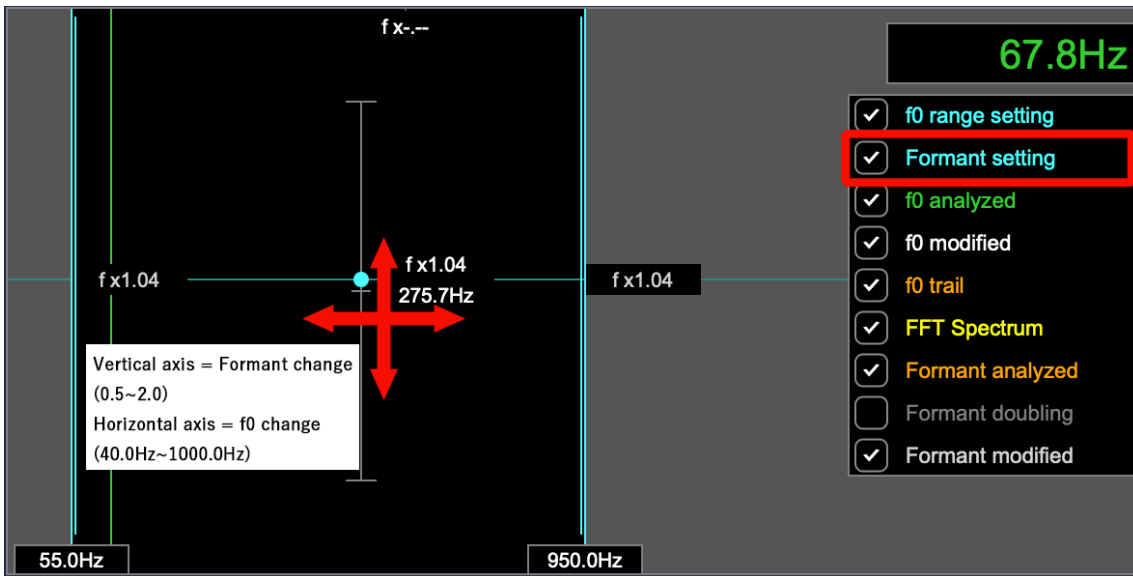
By moving the light blue point in the direction of the crossed arrows above, you can set the Formant and Formant Center values. You can also change the formant slope by dragging the thin light blue line.

・Setting VUV Threshold / VUV(PM) Threshold parameter
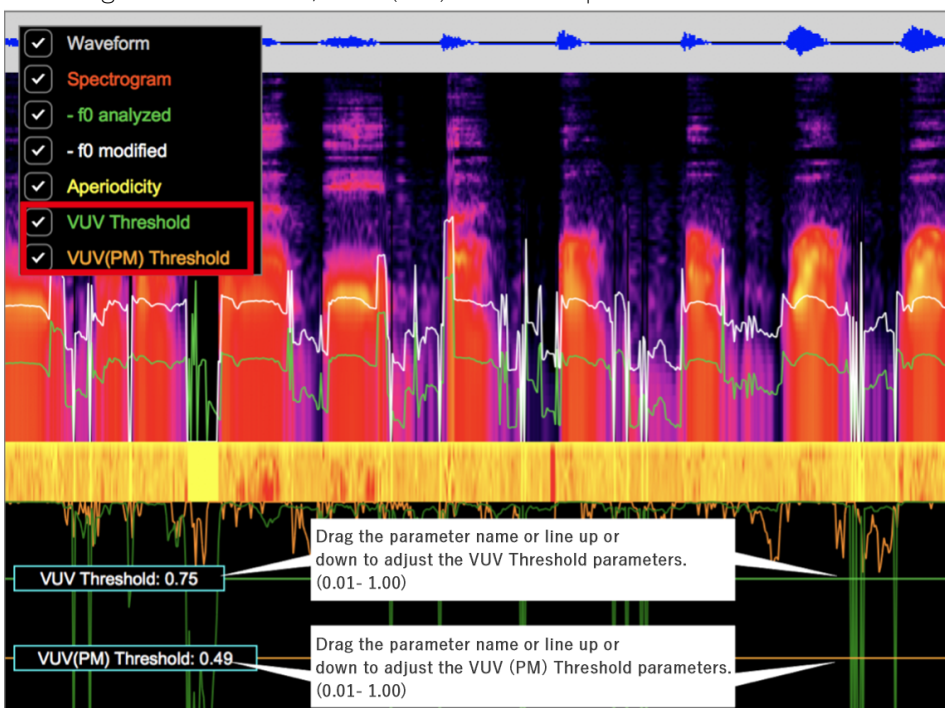
For VUV Threshold and VUV(PM) Threshold, you can set the parameters by dragging up/down the parameter name or line displayed on the ANALYZER.

5. Recording and Streaming

This chapter describes how to record / stream the converted audio by Voidol3R.
The following items are included in this chapter.

(1) How to record the converted audio (This function is not available in RVC Mode)

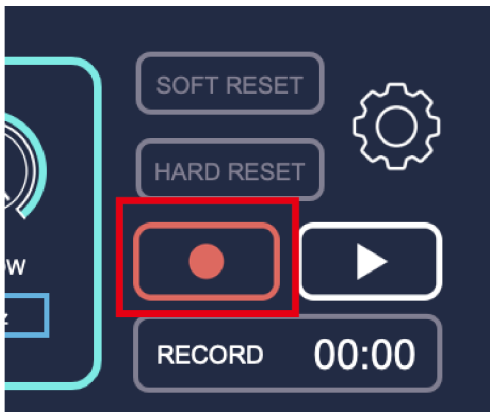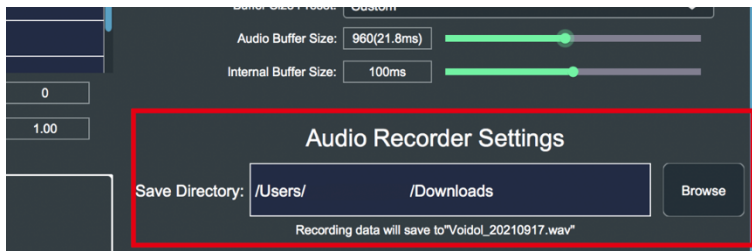By clicking "RECORDING", the button gets toggled and the recording starts.

Clicking the red icon again stops the recording, and the converted voice is saved to the folder specified in the "BROWSE" in the Audio setting screen.

(2) How to stream the converted audio

The following describes how to use Voidol3 while using other company's streaming software.
The process differs between Windows and macOS. Please check the following depending on your OS.

○For Windows
When you install Voidol3R on Windows, a virtual driver for Voidol will be installed on your PC together with the name " Voidol Audio". If you select " Voidol Audio" as the input on audio setting of the streaming software, the converted audio will be passed to the streaming software and available for streaming.

○ For macOS
If you want to use Voidol3R for streaming on macOS, you need to install a virtual driver such as VB-CABLE VB-Audio Software separately to send the converted audio from Voidol to the streaming software.
After installing the virtual driver from an external source, please follow the steps below.

(1) Start up Voidol, and make the following setting
・Input→ the microphone or audio interface you use

・Output→ the virtual driver you are using.
(2) Start up the streaming software and select the above virtual driver as the input.
(3) Then, the converted audio from Voidol3R will be passed to the streaming software and available for streaming.

VB-CABLE VB-Audio Software: https://vb-audio.com/Cable/
If you have any questions, compatibility issues, problems, or losses due to the installation of the virtual driver, we will not be able to support you. Please install the driver at your own risk.

6. Troubleshooting

1. There is something wrong with pitch or tone of the converted voice.
Please check narrator type. It will not be converted well if you select a narrator type different from your voice characteristic (such as male or female). According to your voice quality, please select the most suitable narrator type from "Men 1", "Men 2", "Woman 1", "Woman 2", etc. You can also improve the quality of the conversion by adjusting the speed of your speech and the way you speak.

Note: AI conversion assumes that it is used with a unidirectional dynamic microphone. Also, since it uses predictions based on machine learning, it may be difficult to improve the results depending on the equipment used and your voice quality. Since we assume that you have tested the quality of the trial version, we basically cannot respond to any inquiries about the conversion results. We would like to ask for your understanding.

2. My voice can't be converted while using Voidol.
Please check the BYPASS mode. By clicking "BYPASS", Input Voice will be not converted and come to output directly. (The button color turns reversed while BYPASS mode is working.)

3. No sound from the speakers.
Please check the MUTE mode. By clicking "MUTE", any sound will not come out. (The button becomes toggled while MUTE mode is working.) Please note that MUTE mode is switched by pressing space key.

4. Sound is interrupted.
Please check Noise Gate. If the parameter is too high, the converted voice may be interrupted unnaturally. Increase parameter gradually from 0% while confirming that your voice stays uninterrupted.

5. I want to restore an existing preset voice that I have changed.
If you have changed the Voidol3R default preset voices and wish to restore them, you can do so by going to "Tool" > "Preset" > Restore all factory presets.

6. Voice conversion model cannot be dragged and dropped into the software.
If you drag and drop a file without it being completely unzipped, the application will not recognize it. Please make sure it is completely unzipped before you drag it in.

7. I get an error message when installing or dragging and dropping the ".ppk" file.
The installation may not work properly due to virus removal software. The error may also occur if the PC's clock does not match the local time.

8. I cannot reinstall the software or voice conversion model because the number of installations has exceeded the limit.

Please contact us using the form below with the invalid license key and your purchase history. We will get back to you in about two business days (We cannot respond on weekends, holidays, and nights).
  (https://crimsontech.jp/about-us/contact/?lang=en)

9. When using voice conversion models of male characters in AI Mode, harsh and unpleasant noises were generated as if the machine was malfunctioned, and then there was no sound output at all.
For male characters such as Otoshiro Tsukasa（CV: Fujimoto Takayuki", "Gate Jobs (CV:AIJ)", and "Jack Blow （CV: Sasai Takahiro）", we have confirmed an oscillation phenomenon in which an abnormal noise is generated when the female voice is converted with the input EQ or Fine Tune changed from the default value. We apologize for the inconvenience, but we recommend that you use the default settings when converting female voices with the voice models of the above characters.

In some cases, it has been reported that the converted voice becomes silent after a harsh oscillation. To solve the problem, you need to set the HIGH EQ to 20 kHz, and then try SOFT RESET or switch to another voice conversion model.

We are considering to update these models in the future as necessary.

10. the sound of Voidol3R is interrupted when using it with video software.
Depending on the specifications of your PC, the conversion quality of Voidol3R may be affected due to the heavy load on the system when using video software. Please take measures such as closing all unused software so that your PC is not overloaded as much as possible.

7. Support

If the problem persists after trying the above, please contact us using this contact form (https://crimsontech.jp/about-us/contact/?lang=en).

There is no trial version of Voidol3R.
We do not offer refunds due to quality, as we assume that you purchase the software after testing it with the trial version of Voidol2. Also, please note that we do not provide support by phone, chat, etc.

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