

# JavPlayerTrial Manual Ver.1.03

**Please do not sell, distribute or publish videos created using JavPlayer without the permission of the copyright holder.**

## Install

Extract zip to a location that does not contain double-byte characters in the full path and execute JavPlayer.exe.

## Uninstall

Delete the extracted folder.

If you delete JavPlayer.sdj, user settings can not be able to restore.

## Data Save

The content of the setting panel is auto-saved to "JavPlayer/JavPlayer.sdj".

Save will be executed when start playback or quit the application.

\*In the case of capture, it is saved for **each target application**, not for each video.

## Terms

**Cell** The rectangles that make up the mosaic.

**2D-mode** Normal video playback mode. VR video is also played back in 2D mode at the beginning.

**3D-mode** This mode is for rendering VR videos. You can change the orientation of the camera.

**VR-mode** This is a mode to watch VR videos using goggles.

**Equirectangular** A conversion format for projecting VR images on a sphere.

**ProcessingSettings** Parameters for mosaic reduction processing. Adjust to enhance the effect.

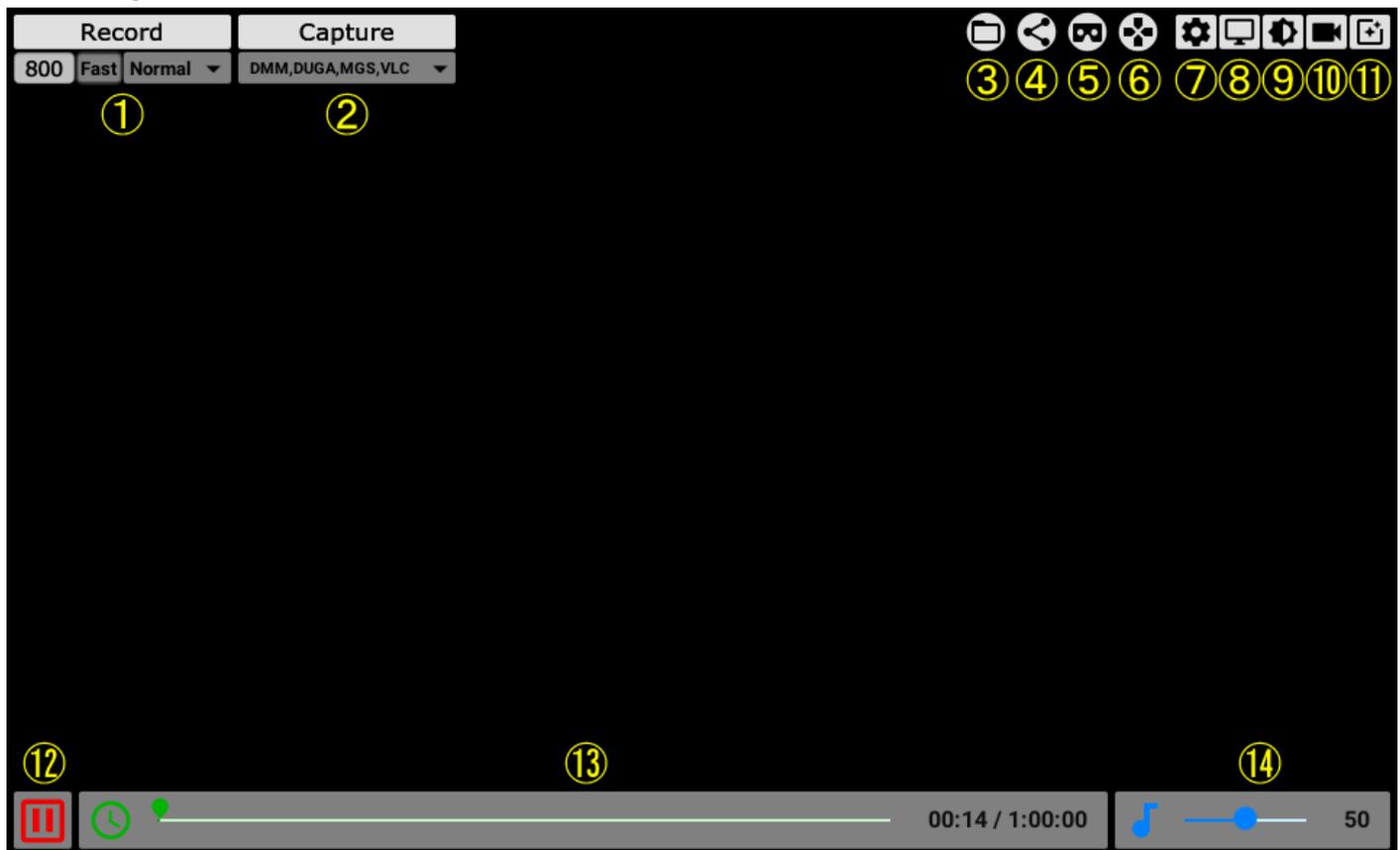
**Marker** Dividers placed on the seek bar to switch processing settings.

**Swipe** Operation to slide the mouse while pressing the left button.

**MosaicReduction** Non-AI super resolution processing by JavPlayer.

**Decensoring** AI super resolution processing by external tool.

## Basic Operation



- ① Record movies during playback or capture.
- ② Capture the screen of the DMM player etc in real time.
- ③ Open the file browser.
- ④ Execute the decensoring process. [You need to install DeepCreamPy in advance.](#)
- ⑤ Switch the VR mode. [You need to select the division pattern in the 3D-View settings panel in advance.](#)
- ⑥ Open the Key Assignment panel.
- ⑦ Open the Environment Settings panel.
- ⑧ Open the 3D-View Settings panel.
- ⑨ Open the Screen Settings panel.
- ⑩ Open the Color Correction panel.
- ⑪ Open the Processing Settings panel.
- ⑫ Pause / Resume [\\*Same as double-click the screen](#)
- ⑬ Move the handle and seek. [\\*Horizontal swipe allowed](#)
- ⑭ Move the handle and adjust volume. [\\*Mouse wheel allowed](#)

Drag and drop the movie file to the window of this application and play it.

The window size will be adjusted automatically according to the movie.

You can also display still images (jpg, png).

If you press the Esc key while in the VR mode, file browser or key assignment, the original screen will be restored.

## Toolbar

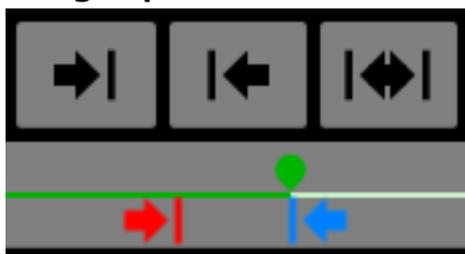


It is displayed above the seek bar only when the 'toolbar' is ON in the environment settings panel.

It includes buttons related to screenshot, loop(record) range, play speed, marker editing, etc.

You can assign keys to all functions.

## Range specification



If you set the range with the toolbar buttons or the keyboard, only that part will be played repeatedly.

If only the start point is specified, the end of the movie will be the end point.

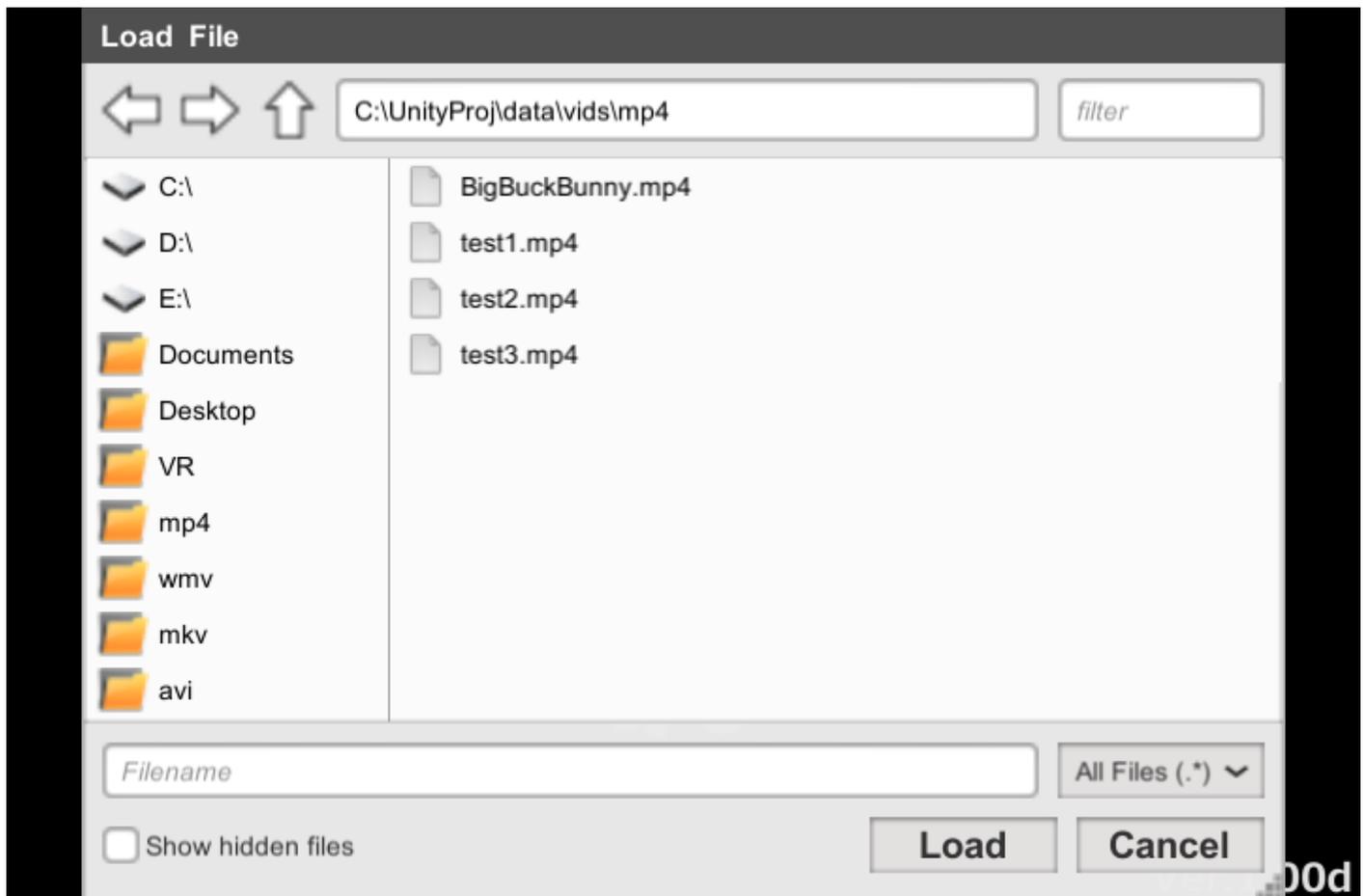
If only the end point is specified, the beginning of the movie will be the start point.

It returns to the start point at the moment past the end point, but before the start point it plays normally.

Loop is not executed during pause.

**It is also used to specify [the range to record](#).**

## File Browser



Double-click the file to start playback

The folder of the played video will be added to the left folder link. \*up to 8

Opening and closing with shortcut keys (default: F key) is convenient when using a file browser frequently.

## Sequential Playback

Video switching (default: F7 key, F8 key) is a function to play videos in the same folder continuously.

Intended to be used while wearing goggles in VR mode, but it can also be used for still images (png, jpg).

[You can also load the last file after rebooting.](#)

If you drag and drop multiple videos together, they will be treated as a video group.

The target of video switching is limited to files in a group and can be used as a simple playlist.

[Dropping a single file or loading from the file browser will ungroup it.](#)

## Key Assignment

	1	2	3		1	2	3
Open / Close file browser	F	Button7		Make the screen size half the video size.	0	----	
Pause / Resume	Space	Button2		Make the screen size same the video size.	1	----	
Specify the start of the loop(record) range.	L_Bracket	Button5		Make the screen size 2 times the video size.	2	----	
Specify the end of the loop(record) range.	R_Bracket	Button6		Make the screen size 3 times the video size.	3	----	
Forward 1 frame.	Period	L_Stick_H +		FullScreen / Windowed	Func11	----	
Rewind 1 frame.	Comma	L_Stick_H -		Take a ScreenShot.	Func12	----	
Forward 10 seconds.	R_Arrow	R_Stick_H +		Hide GUI and operate camera.	Mouse2	----	
Rewind 10 seconds.	L_Arrow	R_Stick_H -		Zoom in (VR video only)	I	Button4	
Forward 1 minute.	U_Arrow	D_Pad_H +		Zoom out (VR video only)	O	Button1	
Rewind 1 minute.	D_Arrow	D_Pad_H -		Enter to VR mode and reset camera.	R	Button8	
Increase playback speed by one level.	PageUp	LR_Trigger +		Turn up the volume.	----	D_Pad_V +	
Decrease playback speed by one level.	PageDown	LR_Trigger -		Turn down the volume.	----	D_Pad_V -	
Play the next video in the same folder.	Func8	Button6					
Play the previous video in the same folder.	Func7	Button5					
Paste the copied video URL.	P	----					
Cancel image processing only while pressing.	M	Button3					

You can assign up to 2 keys or buttons for each function.

The default is to use a combination of keyboard(101) and pad(Xbox360).

Please change according to your environment.

Skipping will be executed continuously if you keep pressing.

It will be canceled if the start (end) of the range is set continuously at the same position.

Pressing the start and end setting keys simultaneously cancels both.

Process cancellation is a function to check the original mosaic, and it wScreenshots will be stored in "JavPlayer/ScreenShot/\*\_XXX.png".

When you reset the camera, the goggle wearer's gaze direction will be in the front.

If it is executed only once, it will be reset to the horizontal state.

It will be reset in an inclined state if it is executed twice in a row (if it is facing down, the bottom is front).

Holding down the Shift key while zooming will change the camera's altitude.

Skip(Move playback point) will be executed continuously if you press and hold.

## Capturing



Please start the target application and press the capture button.

The default target is DMM, DUGA, MGS, VLC player.

To capture other applications, please select in the list.

In order to improve image quality, bring the window size of the target closer to the movie.

It automatically retries even if the target window is lost by minimizing or resizing.

Capture is ended by pressing the stop button or start playing a movie.

\*DMM Movie Player (UWP ver.) is not able to be captured.

[In Windows 7, the capture function does not work properly.](#)

[If you can not capture, please discontinue use.](#)

## VR-Mode

You can switch to VR mode only if you have selected a split pattern in the view settings.

Even when wearing goggles, you can switch to VR mode by executing reset (default: R key, pad button 7).

It is necessary to install SteamVR and connect the corresponding goggles.

Not only OculusRift and HTC-Vive but also OculusGo etc. connected to a PC can be used.

The operation test was performed with a smartphone and its goggle.

The software used is RiftCat2.0 (Windows) and VRidge2.0 (Android).

3D GUI is not implemented yet.

It is inconvenient without the game pad, but no problem.

There are various forms of VR video mosaics, and some of them can not be reduced at all.

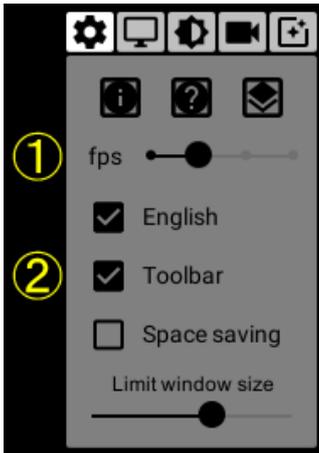
It will not be a problem if the mosaic always looks like a square when playing in 2D mode of JavPlayer or a usual video player.

The image deformation process by the switch on the upper right of the processing setting panel is effective for some videos.

[In the trial version, mosaic reduction in VR mode is limited to 10 minutes.](#)

[It will be enabled again after rebooting.](#)

## Environment Settings

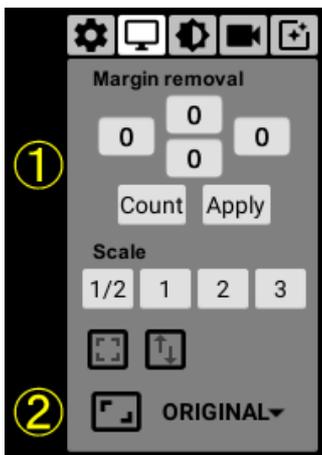


① If you set it to 30 fps, capture delay will increase.

90 is for Oculus Rift and HTC Vive

② Even if you turn off the toolbar, you can do all the operations with the keyboard shortcut.

## Screen Settings



① If the video contains a black border, press the measurement button and then press the apply button.

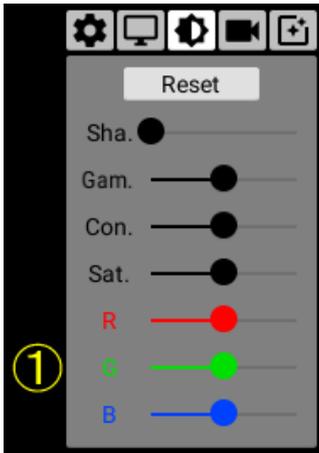
If you measure on a bright screen the correct value will be set usually.

If the capture target contains a non-black frame such as a status bar, you need to input manually.

② Select the aspect ratio of the screen.

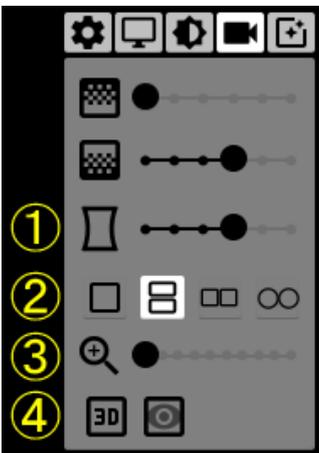
While playing VR video in 2D mode, this setting will be ignored.

## Color Settings



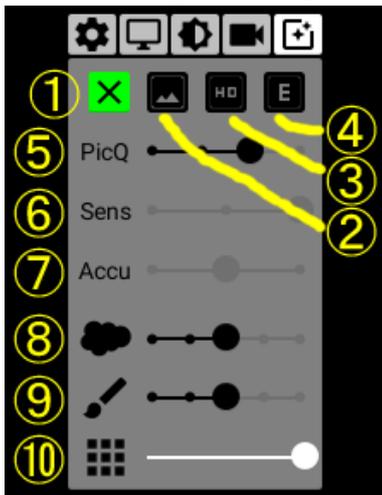
- ① You can adjust the brightness of the screen when you move R,G,B while holding down the Shift key.  
If you leave the parameters on this panel as default, load will be slightly reduced.

## 3D-View Settings



- ① This setting is for detecting distorted or tilted mosaics. Normally set to 0.  
When it is set to 1 or more, the slider for range setting (for upper and lower) is displayed.
- ② When VR video is loaded, it will be TopBottom or SideBySide.  
If the automatic judgment is incorrect or if it is a fisheye type, set it manually.  
[Specifying a division disables mosaic reduction in 2D mode.](#)
- ③ Set the zoom factor. The standard viewing angle follows the goggles.
- ④ If you switch to 3D mode, camera orientation can be controlled with the right drag (default key assign).  
Please make mosaic processing settings in 3D mode about VR videos.  
[The panel can not be opened in 3D incompatible state such as capturing or still image display.](#)

## Processing Settings



It is usually applied to the whole video.

In the commercial version, you can create many sections and can make different settings for each.

① Parts close to the specified color will be protected from processing.

It is effective in case of the lattice pattern of the white window is misjudged as mosaic.

Do not specify skin color, brown, black, etc.

② The part that looks like stripes will not be processed.

Not only the background but also some mosaics may be excluded.

③ Perform mosaic judgment in high resolution.

It is effective for fine mosaic videos and VR videos, but processing load will increase significantly.

The button does not appear for low resolution videos below HD.

④ Deform the entire equi-rectangler image to detect the mosaic.

Not necessary if the mosaic looks rectangular in 2D mode.

The button is displayed only in TopBottom or SideBySide (non fisheye) videos.

⑤ The selected picture quality is reflected in the automatic adjustment of sensitivity and accuracy.

If the mosaic is not processed and remains, try reducing the value.

Normally 0 (automatic adjustment OFF) is not used.

⑥ Setting a large value makes it easier to identify fine mosaics, but increase false positives.

It can be set only when the automatic adjustment is OFF.

⑦ Smaller values make it easier to identify blurred mosaics, but increase false positives.

It can be set only when the automatic adjustment is OFF.

⑧ Adjust the intensity of the paint filter.

Although it can reduce the mosaic without blurring, there is a problem that distortion occurs.

If you set it to 0, the processing will be light a bit.

⑨ Adjust application rate of super resolution filter.

The higher the value, the sharper the image, but the vibration of the processed part increases.

While recording in TG mode, this setting is ignored and maximum.

⑩ Set the cell size of mosaic.

Normally the auto is set, but manual is effective only in the section where automatic judgment fails.

## Preparation for Recording

The addition of audio requires FFmpeg unless the record setting is 'Fast-Normal'.

<https://ffmpeg.zeranoe.com/builds/>

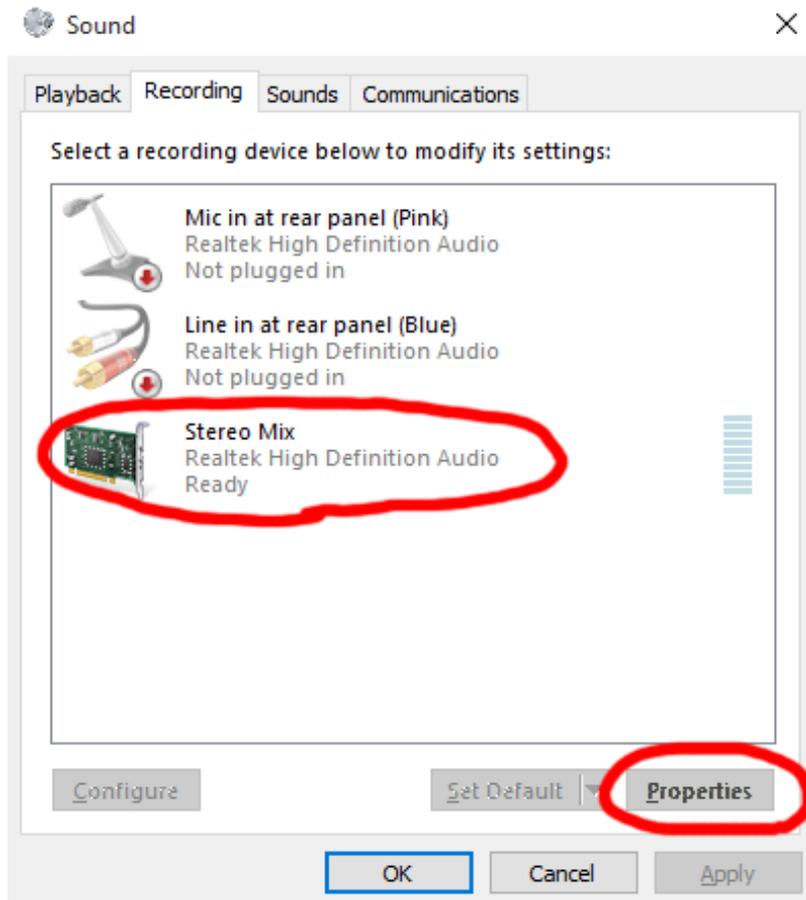
Please install in advance and add the path of the bin folder to environment variable.

You can use it even if ffmpeg.exe is placed in the same folder as JavPlayer.exe.

## Preparation for Capture Recording

You need a stereo mixer to record while capturing.

For Windows 10, right click on the speaker icon in the task tray and select the sound and set it.



Since the volume of the speaker output is reflected in the recording level, it is necessary to record with the volume increased.

As it seems that the stereo mixer may become invalid while using the headphones, please deal with it according to your environment.



**Check for preparation** You can check whether ffmpeg and stereo mixer can be used by pressing this button immediately after startup.

## Recording



Recording is impossible on Windows7 because the installed encoder does not support Windows7!

Normally, only the set range is recorded, but if not set, the whole movie is recorded.

You can not record longer than 1 minute in trial version.

Width (area of video) can not be changed in trial version.

When the recording mode is Fast (real time), frame dropping may occur depending on the performance of the PC and the area of the video.

When the recording mode is Slow (frame advance), it takes several times longer, but frame dropping does not occur.

Normally audio data will be extracted and combined by FFmpeg after silent recording.

You need to install TecoGAN (described later) to use recording modes other than 'Normal'.

The output destination is "JavPlayer/Movie/OriginalName \_XXX.mp4".

\*During recording, the frame rate is changed regardless of usersetting.

## Capture Recording

Because it can not advance frame by single step to be captured, it is restricted to Fast only.

Because it can not wait for the execution of the external program, it is restricted to Normal only.



Since you can not set the range, you need to manually press the end button.

Both capture and recording are high load, so frame dropping tends to occur more than usual.

It is better to reduce the target window or output resolution (the value of Width).

## TecoGAN

It is a video super-resolution algorithm under development by MengyuChu, YouXie, LauraLeal-Taixe, and NilsThuerey.

<https://github.com/thunil/TecoGAN>

You need a CPU (SandyBridge or later) that can use the AVX instruction set for execution.

You need Windows10 (64bit) or Windows8 (64bit) for execution.

You can expect much better results than JavPlayer's super-resolution.

However, due to the very high load, you need to create videos in advance.

The procedure to use is as follows.

1) Download TecoGAN for Windows.

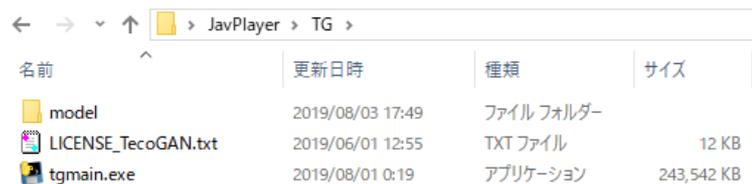
<https://drive.google.com/uc?id=1s1itFLcM-RNGptT15QDZ5d0Gk6vdY-Yp&export=download>

2) Unzip and copy tgmain.exe and the model folder into "JavPlayer/TG/".

3) Play video on JavPlayer and change the recording mode from 'Normal' to 'TG-STD'.

4) Set the speed to Slow and start recording.

After installation, contents will look like this.



名前	更新日時	種類	サイズ
model	2019/08/03 17:49	ファイルフォルダー	
LICENSE_TecoGAN.txt	2019/06/01 12:55	TXT ファイル	12 KB
tgmain.exe	2019/08/01 0:19	アプリケーション	243,542 KB

If your PC is equipped with a CUDA compatible GPU and 2G or more VRAM, I recommend GPU version several times faster.

[https://drive.google.com/uc?id=1HtQR9-wPnbWTV\\_9gRBzgnsFRHUs7J\\_Li&export=download](https://drive.google.com/uc?id=1HtQR9-wPnbWTV_9gRBzgnsFRHUs7J_Li&export=download)

Since tgmain-cuda.exe is used in preference to tgmain.exe, there is no problem if both exist.

You also need to install CUDA in advance.

<https://developer.nvidia.com/cuda-downloads>

Even if you use the GPU version, the processing (png extraction, encoding, etc.) that JavPlayer is responsible for will not become fast.

To make those part faster, change the speed setting from Slow to Fast.

Occasionally there is a delay in the progress of the frame, but with enough PC processing power it is no problem.

I confirmed that it has a great effect on videos that are unsuitable for frame-by-frame advance (mainly wmv and mkv).

If no range is specified, it is treated as a test of TG mode and recording will be end in 5 seconds.

You can create up to 1 minute video if recording range is specified.

Recording in TG mode is divided into 3 processes: png extraction, high resolution conversion, and encoding.

Of these, you can pause and resume by pressing the button while high resolution conversion is in progress.

You can interrupt and resume immediately, or you can load and resume the same video after rebooting.

[Note that only one information for resumption is saved and will be overwritten.](#)

Selecting 'TG-AFL' as the recording mode enables the flicker reduction filter.

Use it only for videos that have a strong flickering mosaic as it will blur the processed part.

JavPlayer has 'Super-resolution for still images to double size' for real-time processing.

In TG mode, this is replaced with 'Super-resolution for videos to quadruple size' of the external program.

Parts other than super resolution (measurement of the area and roughness of the mosaic, composition of the processed image, etc.) are shared.

If mosaic can not be reduce in normal playback, mosaic can not be removed even in TG mode recording.

Please give up if the mosaic remains even if you change the processing settings.

Recording in TG-mode can not be performed under the following conditions.

- Not connected to the internet
- Capturing
- During VR video playback
- During still image display

In the current version, the message of distribution prohibition and your IP address are displayed.

It will be a hindrance to viewing, but please understand that it is to prevent distribution and sales of modified videos.

Since TG-mode is in testing phase, there may be various problems.

Announcements etc. are done with Twitter account @Javski2.

## DeepCreamPy

Remove the mosaic by an external program called DeepCreamPy.

DeepCreamPy is a color illustration complement tool under development by deeppomf.

<https://github.com/deeppomf/DeepCreamPy>

[https://github.com/deeppomf/DeepCreamPy/blob/master/docs/INSTALLATION\\_BINARY.md](https://github.com/deeppomf/DeepCreamPy/blob/master/docs/INSTALLATION_BINARY.md)

\*It is only for 64bit windows

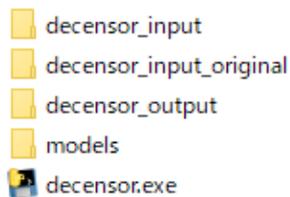
I do not recommend it at this point because you can not get good results.

Decensoring process is done by DeepCreamPy, JavPlayer just prepares and displays the image.

The procedure to use is as follows.

- 1) Install Visual C++ Redistributable for Visual Studio 2015 Update 3 if necessary.
- 2) Download the windows binary.
- 3) Unzip the file and copy the decensor.exe and models folder to JavPlayer/DCP/.
- 4) Play the video with JavPlayer and press the desensoring button at the top of the screen.

After installation, DCP folder will look like below.



When the button is focused, the target area for decensoring will be filled with green.

If it is not covered enough, increase the area parameter in processing settings and then execute.

It takes more than 10 seconds to complete after pressing the button.

After completion, please try to change the application rate by vertical swipe.

Cancel the mosaic reduction process if you wish to compare with the original condition.

When the screen is redrawn by resuming or seeking, the display is ended.