

NDNOISER DOCUMENTATION

Thank you for checking out NDnoiser! This Denoiser is driven by AI and the NVIDIA Optix SDK. This application created by Justin Jaro. <http://VLTMedia.com>

IF YOU PAID FOR THIS PROGRAM, SORRY BUT IT'S FREE FROM JUSTIN JARO AND GUMROAD.

With this program, you can Denoise an image created with Cycles, Octane, Redshift, Iray, and Vray. The AI is trained on the Iray Render engine, so the results with different engines will differ. Arnold does not seem to work with the AI Denoiser.

From best to worst compatibility wise:

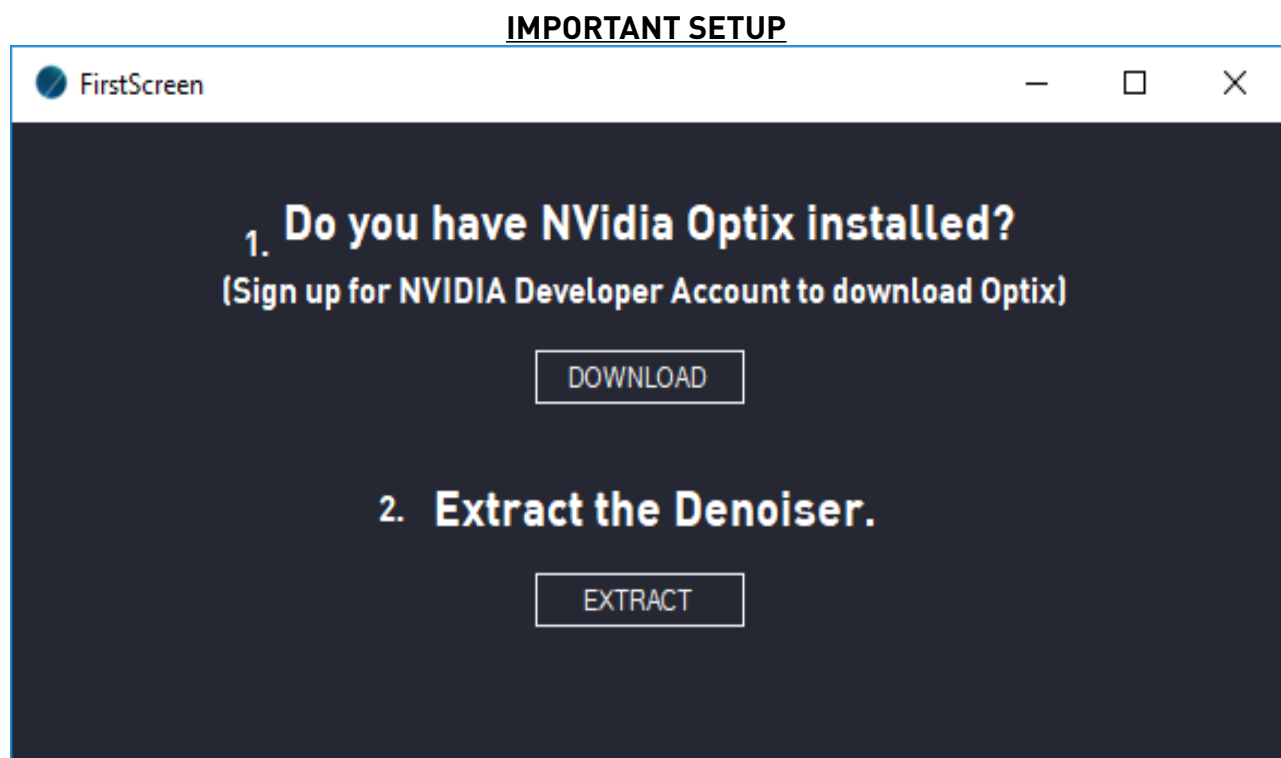
1. Iray
2. Cycles
3. Octane
4. Vray
5. Redshift (hit or miss)
6. C4D Physical
7. ~~Arno~~ **NO**

THIS DOES NOT WORK WITH PHOTOS TAKEN WITH PHYSICAL CAMERAS!

I made this tool to easily utilize the Nvidia Denoiser when you don't want to go around a paywall or like me, your computer just craps out when trying to use the built in denoisers. I have a 7 GPU machine that always crashes when trying to use the AI Denoiser in any render engine. This way I can just batch out an entire folder using another computer.

Do not expect crazy magically clean renders with seriously noisy images. The image is still being Denoised, so you will lose a some detail depending on how noisy your image is. You will get the best render time to quality ratio if you render out to at least 60% quality. The Ai is good at saving almost all small detail if rendered to 60%.

Tutorial video here:
<https://youtu.be/l119iaRj5Js>



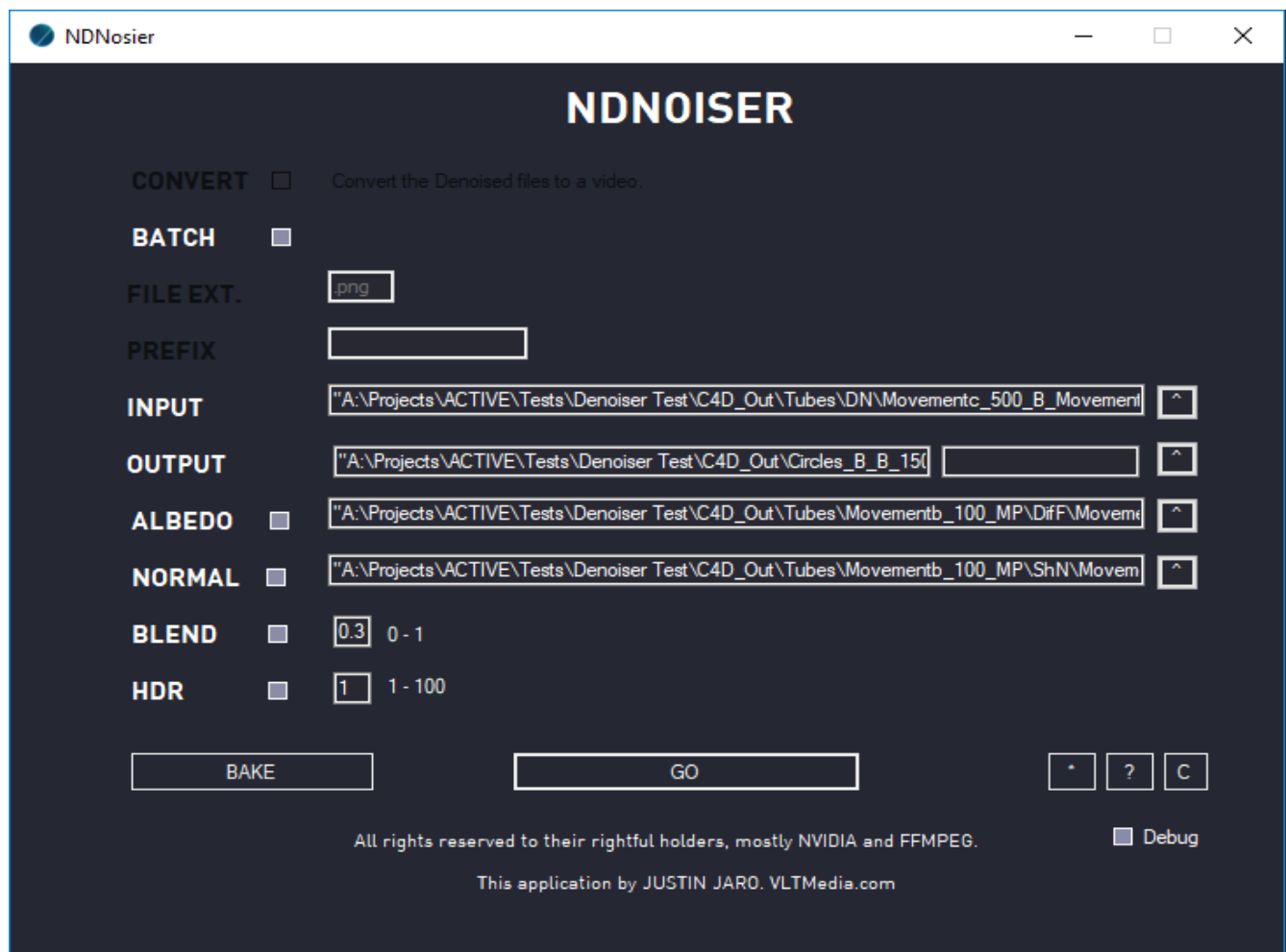
First off, please download and install NVIDIA Optix to your computer. <https://developer.nvidia.com/designworks/optix/download> You will need to sign up for a developer account with NVIDIA which is free. Just download and install the exe.

Second, Hit EXTRACT and NDNOISER will try to extract the final files. If any errors come up, please check your antivirus on file permissions. Other bugs are cited below in the Troubleshoot area.

You can get back to this screen by clicking the * button on the main page, or by clicking the "C" button on the main page to clear and reset the application if anything goes wrong.

If you want to use the Bake to video function, please install FFMPEG and make sure that it is in your Environment Path. If not properly installed, the bake to video function will not work at all. <https://www.wikihow.com/Install-FFmpeg-on-Windows>

MAIN SCREEN CONTROLS:



Convert : Check if you want to convert your batched files into an image sequence after the Denoising process. Needs FFMPEG installed.

Batch: Check if you want to Batch Denoise a folder of files.

File Ext.: File Extension of the files for Denoising.

Prefix: Only used in Batch, automatically detected using the first image in a folder, this is the Prefix of your file name before the padded numbered sequence. Change if needed obviously.
Example: File_A_002.png. Prefix = File_A_

Input: Set the input file to be Denoised. If Batch is checked, select the folder to be Batch Denoised.

Output: Set the Output of the Denoised file. First field is the Folder, second field is the file name. If Batch is checked, no need to set the filename since a bunch of Denoised files will be placed in the output folder.

Albedo: Only used if Normal is specified, set the Diffuse Filter pass (Octane) for the AI to better detect the Normal details and keep from over smoothing detail. Not perfect and varies render engine to render engine. I couldn't figure out the correct map for the other engines to use. If anyone figures it out, please email me asap to update the documentation

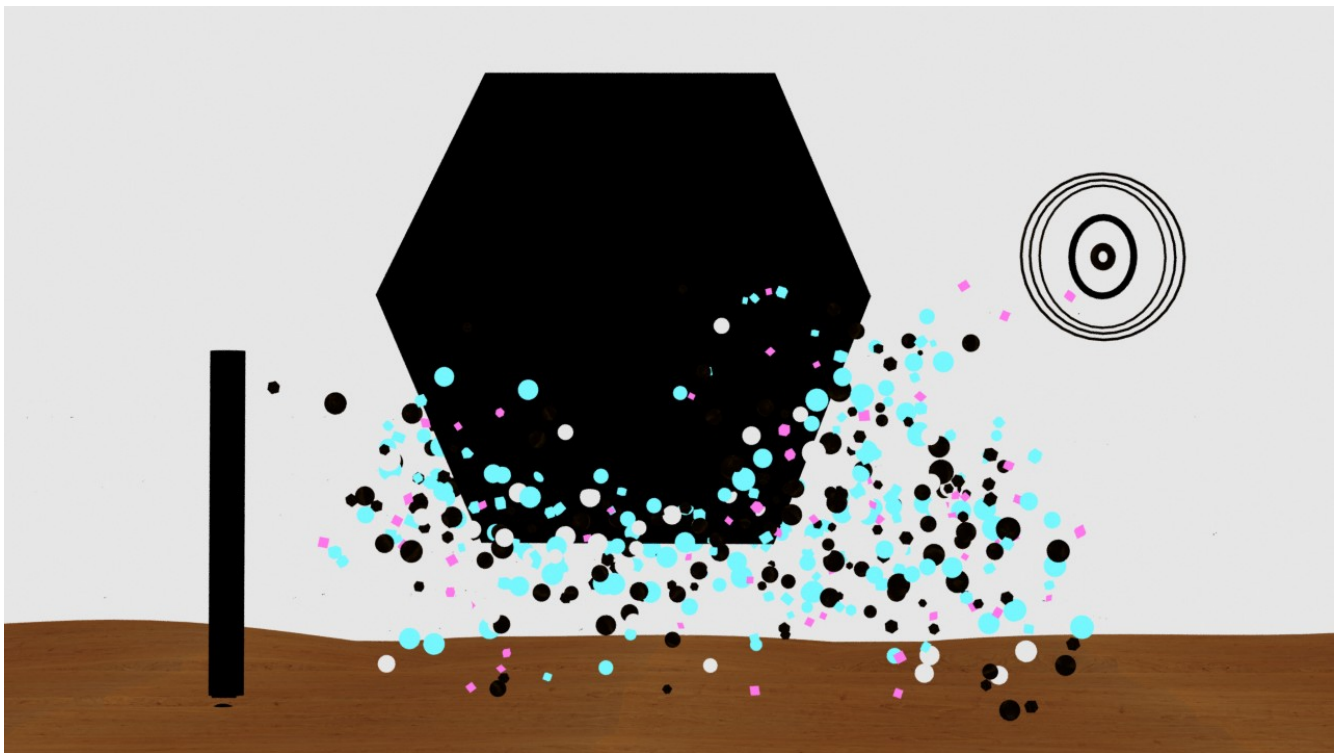


Illustration 1: Octane Diffuse Filter for Albedo Map

Normal: Set the ShadowNormal pass (Octane) for the AI to better detect the Normal details and keep from over smoothing detail. Not perfect and varies render engine to render engine. Albedo pass is needed. I couldn't figure out the correct map for the other engines to use. If anyone figures it out, please email me asap to update the documentation.

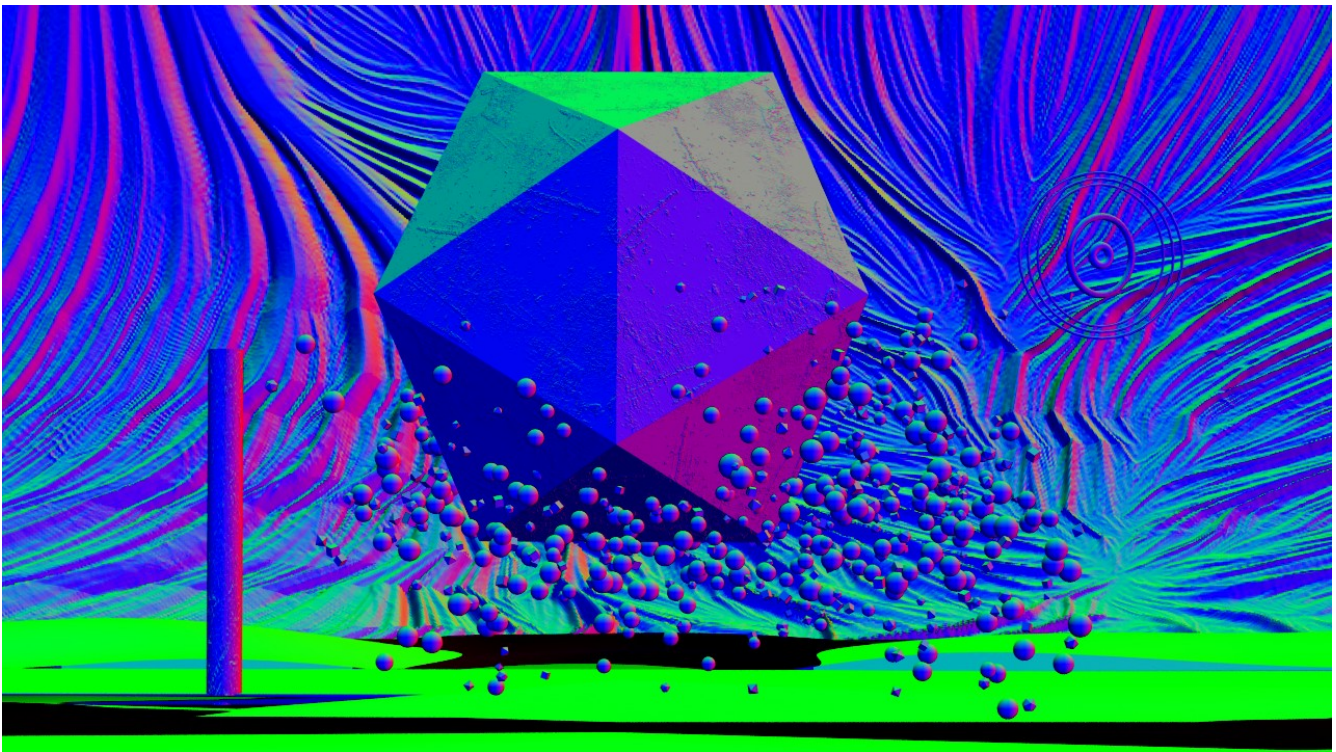


Illustration 2: Octane ShadowNormal pass for Normal Map

Blend: Blend the Denoised image with the original image. Ranges from 0 - 1.
0.5 = 50%

HDR: HDR training of the AI. Negligible. Very.

DEBUG: If checked, the Command Line will not close out when finished with it's tasks allowing you to check for any errors. You will have to close it manually to have the rest of the program continue if you are also Baking the sequence to a video or gif. It also keeps the .bat files from being deleted so you can edit it to fix any errors.

C: Clear or reset the program if anything crazy happens.

*****: Set the Denoiser.exe location.

BAKE SCREEN CONTROLS:

BAKE SEQUENCE TO VIDEO + GIF

SEQUENCE FOLDER Path (Folder) of Image Sequence

OUTPUT PATH Path (Folder) of Image Sequence

FRAMERATE Input Framerate

RESOLUTION x Output Resolution

PREFIX File Name Prefix Example: {Render_}0001.png Prefix: Render_

STARTING # First Image to in Sequence Example: Render_{0001}.png # = 1

of 0's Number padding of your file name. Example: Render_{0001}.png # = 4

FILE EXT File Extension of the Sequence Example: Render_0001{.png} Ext = .png

QUALITY Quality of Export 0 - 100. Lower = Better

OUT NAME File name of video. NO EXTENSION Example: Render_B_

OUT EXT File Extension of the Exported Video

OPEN FINISHED Open the file when finished.

Extras

SlowMo % you want to slow the clip down by. Depends on footage. 70% is usually still good. 40% is 60fps - 24fps equiv.

NOTE: FFMEPEG NEEDS TO BE INSTALLED! ADD TO YOUR ENVIROMENT VARIABLES.

Debug

Sequence Folder: Set the sequence folder of the image sequence to bake to a file.

Output Path: Set where the video file will be placed.

Framerate: Set the frame rate of the source image sequence.

Resolution: Set the output resolution of the video file.

Prefix: This is the Prefix of your file name before the padded numbered sequence. Change if needed obviously.

Example: File_A_002.png. Prefix = File_A_

STARTING #: The first frame of the sequence you want to Bake.

Example: File_A_002.png. # = 2

of 0's: Count of Numbers in your filename that is used to count up.

Example: File_A_002.png. # = 3

File EXT: File Extension of the files for Baking.

Quality: Quality of the resulting file. 0 = 100%. 100 = crap.

Out Name: The filename of your resulting file.

Out EXT: The extension for baked file. Gif is soon to come.

Open Finished: Open the image when finished.

DEBUG: If checked, the Command Line will not close out when finished with it's tasks allowing you to check for any errors. You will have to close it manually to have the rest of the program continue opening your files. It also keeps the .bat files from being deleted so you can edit it to fix any errors.

EXTRAS!

Motion Blur A: Add Motion Blur to your Sequence. Not that good but something. Very slight.

Motion Blur B: Add Motion Blur to your Sequence. This one is uglier than the other option. More so of a blend of every frame on into each other from both sides of the frame.

SlowMo: % you want to slow the clip down by. Depends on footage. 70% is usually still good. 40% is 60fps - 24fps equiv.

Force FPS: Force FPS, Interpolates frames. Depends on footage. No motion blur on input is ideal for clean interpolation of frames.

Force FPS w. MB: Force FPS with Motion Blur A. Depends on footage. No motion blur on input is ideal for clean interpolation of frames.

Reverse: Reverse Frames.

BUGS:

1. If FFMPEG isn't installed properly, or your computer just doesn't want to acknowledge it for some reason but you can still run ffmpeg through the command line (It happens...)
Check off any of the Debug checkboxes run through the process till failure.
Check the Input Folder of the image sequence you want to convert, you should see a ImageConvert.bat file.

Double click that and it should start the conversion. If not, see if any errors are thrown, if none exist, please check your FFMPEG installation. Antivirus Application access may deny FFMPEG from running also.

2. Sometimes if you are Outputting your Denoised files under the same directory as your source files (FolderA/Source , FolderA/Source/FolderB) the Denoiser will see those files and try to Denoise them. There will be invalid flags being thrown in the Command Prompt, ignore these and wait for it to finish. It should continue and the files should be properly cleaned.

TROUBLESHOOTING:

If at any time you get a permissions error, or any kind of error, please check your antivirus software and see if it is blocking NDNoiser from writing files.

!!!IMPORTANT!!

"We can't verify who created this file"

If you are using NDNoiser on a network, and the mapped drives aren't mapped using "Names" but rather the IP to the drive (192.168.0.##), you will need to set some stuff up to have the files properly run.

Please follow this site to fix this issue:

<https://www.technipages.com/fix-we-cant-verify-who-created-this-file-error>

Bake Errors:

"No such file or Directory":

A. Check the Prefix of your filename in the Bake window. Just copy and paste the filename up to the padded sequential numbers.

B. Check the start number of your sequence.

"Incorrect Framerate": Check the framerate of your sequence. Try checking Debug and open the .bat file that is created in your Sequence Folder with Notepad or any other plain text editor. The string should read " - r FRAMERATE" where FRAMERATE should be your frame rate. Type in 24 to test it, save the .bat file, double click it to execute the batch file and observe the Command Line for any errors. If it worked and 24 isn't your frame rate, type in your proper framerate.

PLANNED FEATURES:

Normal detail batch compatibility.

EXR sequence baking.

Video baking with alphas preserved.

CONTACT:

If any crazy stuff happens, please email NDsupport@Vltmedia.com