

Neat Video quick start guide

1. Installing the plug-in

When you install Neat Video using its standard installer, the installer should automatically install the plug-in into Pinnacle Studio. In case the plug-in has **not** become available in your plug-in host after restart (the plug-in should appear as *Neat Video* in the list of available effects when you choose to Add Video Effect), please contact Neat Video support for assistance.

2. Running Neat Video on a sample video clip

There is a test-kit prepared to help you start using Neat Video. You can download the test-kit from the Neat Video web page: <http://www.neatvideo.com/files3/testkit.zip> (6 MB). Having downloaded, unzip it to a new folder on the hard disk.

The test-kit includes a sample video clip: the *SampleClip.mpg* file. This is a typical video clip captured by a digital video camera in high-gain mode. Technical information about the sample clip is available in the *SampleClipInfo.txt* file.

Please start Pinnacle Studio and go through the stages below to make Neat Video clean the clip:

2.1. Stage I. Add the sample clip to the project

1. Configure a new project in Pinnacle Studio

- ➔ Create a new project in Pinnacle Studio.

Then click the **Ok** button and Pinnacle Studio will open the new project with the Timeline, Video Preview and other windows.

2. Add the sample clip file to the project

- ➔ Use the **Show videos** panel in the **Edit** tab in Pinnacle Studio to find and select the *SampleClip.mpg* file from the test-kit.

3. Add the sample clip to video track

- ➔ Drag-n-drop the sample clip to the empty video track in **My Movie 1** window and then enable the **Timeline view** in that window.

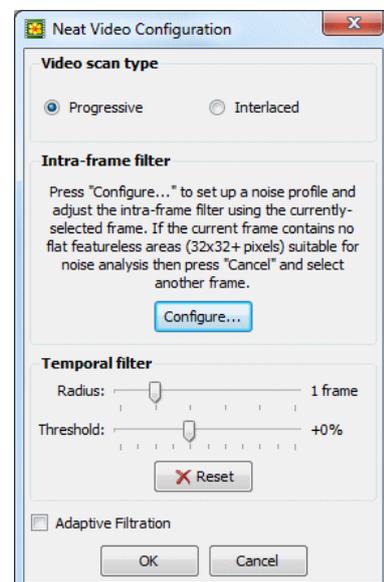
The sample clip is HDV 720p25; make sure Pinnacle Studio changes the project format accordingly (check that in Pinnacle Studio **Setup Options**, in the **Project preferences** tab).

Select any frame in the clip and you will then see that there is strong noise in it (see the **Video Preview** window). The task of Neat Video is to reduce this noise.

2.2. Stage II. Add Neat Video

- ➔ 1. Go to the **Toolbox** menu and select the **Add Video Effects** command to open the empty list of currently used **Video Effects** and the list of available effects in the **Add Video Effect** list;
2. Select **Neat Video** in the **Add Video Effect** list and press the **OK** button.

Pinnacle Studio will add Neat Video and will show the **Neat Video Noise Reduction settings** panel with the only button in it:



Edit Neat Video Noise Reduction settings.

Click that button to open the Neat Video Configuration window (see the picture).

2.3. Stage III. Configure Neat Video

1. Open Neat Video plug-in window

- ➔ In the Neat Video Configuration window, click the Configure... button (in the Intra-frame filter box);

The Neat Video plug-in window will appear and will show the currently selected frame from the clip.

2. Load noise profile

To reduce noise in this frame and in the whole clip, Neat Video generally needs a noise profile describing the noise properties of the clip. We have prepared such a noise profile in advance. The profile is supplied with the test-kit in the *SampleProfile.dnp* file. Load it into plug-in:

- ➔ 1. In the Device Noise Profile tab  **Device Noise Profile** click  **Load Profile** (the Load Profile button);

2. In the Load Device Noise Profile dialog, navigate to the folder where the sample device noise profile has been unzipped and select the *SampleProfile.dnp* file.

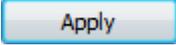
Neat Video will load the noise profile and will then be ready to filter the sample clip.

3. Check intra-frame preview

- ➔ Switch to the Noise Filter Settings tab  **Noise Filter Settings**

You will notice that the intra-frame filter has already applied some filtration based on default filter settings and the preview shows a clearly visible difference. However, this is not the final result yet.

4. Apply the changes

- ➔ Click  **Apply** in the bottom of the plug-in window.

The plug-in will close its main window and you will again see the Neat Video Configuration window.

5. Adjust the temporal filter

- ➔ Adjust the Temporal filter radius setting from 1 to 2 or higher in the Effect Controls window. This will apply stronger temporal filtration to the clip.

2.4. Stage IV. Apply noise reduction to the clip

- ➔ Use the Make Movie tab in Pinnacle Studio and the set of controls in that tab to render the whole clip. The clip will be filtered by Neat Video in this process.
- ➔ Then check the rendered clip using your video player to evaluate the results of noise reduction.

Please note that the noise in the filtered clip is significantly reduced while the true details are preserved. You can also find that the resulting noise-free clip can be compressed better (the file size is smaller) than the original noisy clip (this depends on Pinnacle Studio' output compression settings).

The sample noise profile supplied with the test-kit is suitable only for this clip and similar clips produced by the same capturing device working in the same or similar mode. Neat Video can apply

similar noise reduction to video clips captured or acquired by any other devices working in any mode. To be able to do that Neat Video needs device noise profiles that describe the noise characteristics of those devices. Using Neat Video's Auto Profile function, you can easily build these profiles yourself. Auto Profile can automatically build a profile once you give it a suitable frame from a clip.