Thor

4K | HD Processing

| :07 | 01:29:05:20 | 00:03:03:13 | 01:27:42:11 | | Timecode | | None | | >> | 0 | | 2048x1556p (10) 1.316 Cen | | 1:1 Source |

Out   Duration   A B C D   * REM.

line   Shots   Keyframe Editor   Effect   Tracker   Scene Detect

Enable   Process   Details   Intensity per channel

Amount   87   Base Level: Auto

Aggressiveness   50   Preservation   75

Speed vs Quality

Balanced

Data: Linear

low   mid   high

DigitalVision

www.digitalvision.tv

For the past twenty five years Digital Vision has been in the forefront of processing and enhancing images.

Thor is a hardware processor designed for running the most demanding algorithms and processing image sequences in real-time or faster.

Introducing Thor

Even though the world is turning to digital technology for acquiring images, and film is quickly being replaced, the need for enhancing images is as important as it has ever been.
Digital images suffer from different problems, but those issues still need to be addressed.

As for archives, they are faced with masses of decaying film and video that need digitalization and processing. Image processing can be a complex task and even with advances in technology, the speed is seldom adequate.

We have gone back to our roots and designed a hardware system that will allow real time or faster processing, without compromising the quality of the final image.

Conceived and designed by the team that brought you the DVNR. Thor is designed for both speed and quality, a challenge to achieve when heavy duty image processing is involved.

How does Thor fit into your workflow?

Thor is part of the Nucoda, Phoenix and Loki software. It is transparent to the user.
Combining Thor with the Ultra filters and Loki creates a very powerful and faster than real time up-scaler to UHD

How fast is Thor?

In UHD a single image stream will be processed in real-time up to 30fps. To apply multiple effects, depending on the chosen algorithm, separate passes could be required.

Using Thor Ultra, multiple Thor tools are supported simultaneously.
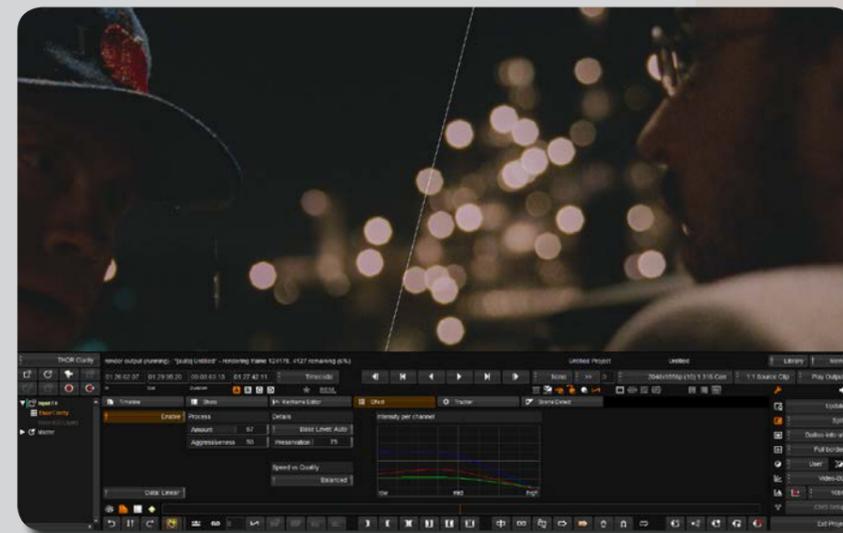
Currently available filters

Thor Clarity 1.1

Automated texture and detail controls preserving grain with noise management.
Thor Clarity is designed to work in any resolution, from SD to 4K and above.

The algorithm includes grain/noise characteristics analysis for automated grain and noise reduction, motion estimation engine and spatio-temporal filter.

Thor Clarity provides stunning images, virtually artefact free but still retaining the original image sharpness and texture. Having become a much used tool and approved by major players in broadcast, restoration and post production, DVO Clarity has now replaced DVO Grain as the industry standard in grain and noise management.

8-16 bit integer data processing only

Thor Ultra - a set of filters optimised for up-scaling to UHD

Clean - a special version of Clarity designed to work as part of Thor Ultra
Intelligent Sharpen - high quality adaptive sharpening
Smart Scale - upscale from SD / HD to 2K and 4K

These filters are combined to provide the best possible quality, speed and performance.

8-16 bit integer data processing only

What other filters will be available?

Digital Vision has a comprehensive set of DVO (Digital Vision Optical) algorithms. All our tools are highly automated and provide superior results. We have tools for film and video restoration and also tools for enhancing and improving digital images.

These tools are well known and to Nucoda and Phoenix users. Thor uses the same DVO algorithms, but optimised and adapted to make the most of the incredible processing power of the Thor hardware.

Thor Dust - automated dust busting
Thor Steady II - automated image stabilisation
Thor Twister II - motion estimated standards conversion

This list is not exhaustive and the development is subject to market needs.
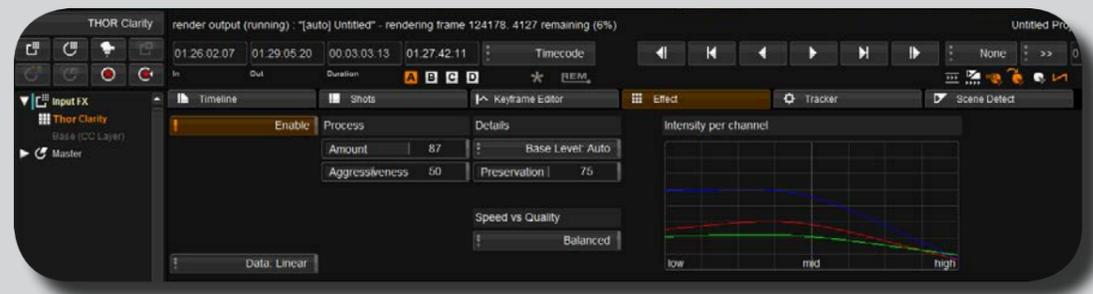
Specifications:

File processing:

- UHD processing up to 45fps
- 4K Full aperture 4096 x 3112 20fps*
- 4 x real-time in HD*
- 30 x real-time in SD*
- Support for Nucoda, Phoenix and Loki

Specifications:
- PCI-e
- Gen 3 x16 mech / x8 electrical
- 2 x Full length slots required - Double width board
- 250W power requirement

*Note: Processing benchmarks are not final and are subject to change. For file based processing,

speed of storage will be a limiting factor.

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