purepixel®

The Unrivaled Clarity You Need to Advance Mission Success

digital harmonic® | RAVENTEK

Powerful AI-Driven Software Delivering Unrivaled Image Clarity with Less Than a Frame Delay

Automatically enhance still images and full-motion video.

PurePixel performs automatic scene recognition and programmatic manipulation of pixel values to optimize exposure, increase contrast and detail, deblur, reduce noise in low quality images, and help detect faint anomalies and increase perceivability of details.

PurePixel, when used upstream of a machine learning image classifier, can increase the probability of object classification.

Process full-motion video at < 30ms/frame in 1080p.

PurePixel can process full-motion video at less than a frame delay and stream or store the output. With a full web User Interface (UI) and Representational State Transfer (REST) Application Programming Interface (API) for configuration and operation, you can easily configure PurePixel as a "bump-in-the-wire" in any real-time image, video or stream processing workflows.

PurePixel operates on commercial graphical processing units (GPU), either on-site or in the cloud, and does not require custom hardware or firmware.

As an exclusive and strategic go-to-market partner with Digital Harmonic, RavenTek brings decades of experience supporting DoD and IC customers to deliver a best in class mission enhancement capabilities. RavenTek is an IT Systems Integrator delivering mission critical Innovation to our federal government partners.

FEATURES
Adapt: Automatic real-time
Enhancement Calibration for imagery and video: No operator or analyst interaction required to enhance imagery/video
Expert: Tuned preset configurations for multiple imaging environments
Stream configuration, imagery and video processing via: UI, REST API, Command Line Interface (CLI)
Platform Support: Linux x64 with CUDAenabled graphics, Windows with NIVIDIA drivers
Form at Support:
- Imagery: JPEG, PNG, TIFF, GeoTIFF, NITF2.1
- Video: MPEG2-TS, RTSP, AVI, MP4

Video Codes: h.264, h.265, MPEG1-4
Video Metadata/Audio passthrough and PTS/DTS matching
Standards Conformant: MISB-compliant video stream processing

REQUIREMENTS
- RAM 4GB+
- Windows 10
- Linux Kernel 4.15+ (Ubuntu 16.04+, RHEL/ CentOS 6+, OpenSUSE/SLES 15+, Fedora 27+)
- CUDA capable GPU with compute capability 6.1+
- NVIDIA Driver 418.39+

Want to crunch numbers and test your own content? Request a demo with RavenTek here: info@raventek.com