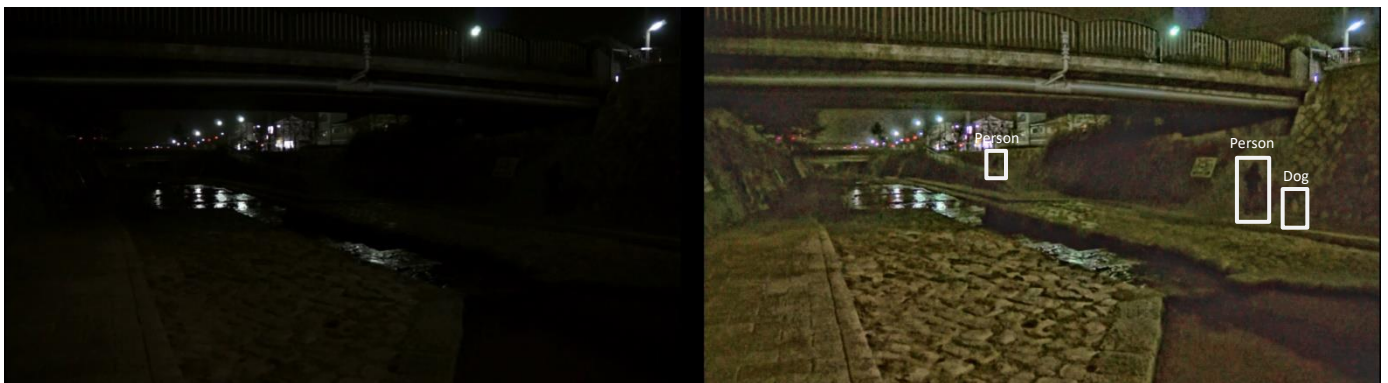# ProHawk®

PROHAWK VISION™ 5.0

Make Live Video Operational

Driven by powerful computer vision (CV) algorithms, ProHawk Vision dramatically enriches the quality of a live camera stream, or a live stream from leading Video Management Systems (VMS). ProHawk Vision fixes noisy, obscured, or unclear live video into sharp, clear video with intricate details. ProHawk Vision AI/CV algorithms reveal each pixel influenced by surrounding pixels, while traditional products manipulate the full image. This produces live video that is intelligible and useable for humans, video analysis (VA), and Artificial Intelligence (AI).

ProHawk Vision fixes problems that obstruct capturing good live video that stem from the environment. When live video is subject to difficult environments, problems fall into two categories: issues with light or lack of it; and issues with various sizes of suspended obstructive particles in the air or water called particulates.

Environment Problems Solved

Rain · Snow · Dirt · Fog · Sand · Water · Backlight · Low Light Night · Headlight · Bright Overcast · Sun Glare · Shadows

ProHawk Vision resolves environment problems that cause poor live video with a variety of new features and enhancements, to support more platforms, formats, and conditions. While continuing to offer the world's first true live video CV enrichment solution with unprecedented imagery details. Some new features in 5.0 include:

Live Video Sources

Sharp clear live video with no video lag or frame skipping from a camera or VMS using industry standards protocols. We provided the ability to add usernames and passwords authentication for live cameras and VMS's to ensure secure access to any live video. No matter the source of your media, we've got you covered.

Expose Fine Details

Clearly see fine details to identify specific objects, situations, vehicles, and people. The powerful detail enhancement algorithm exposes fine details to detect small objects and see details that were not visible, even with good video. Faces, people, animals, objects, weapons, vehicles, and license plates can all be easily identified and exposed.

Sensor Coverage

Humid climates cause problems due to excessive amounts of rain and fog which limits sensor range and accuracy, along with the difficulties of sun glare. ProHawk Vision fixes more than poor color optical cameras, we increase the coverage range and accuracy of thermal sensors by 300% and infrared cameras by 500%.

Preset and Custom Filters

A wider range of one-click preset filters let users quickly and confidently reach enriched imagery in an efficient method. There are over 50 presets to help users reach actionable results fast for a wide range of difficult live video environments. Users can now create their own custom one-click preset filters based on their advanced filter settings. ProHawk improves poor low- or high-resolution live video interpreted by operators, VA, AI or CV.

Eliminate Effects of Motion

ProHawk Vision has a unique patented motion adaptation algorithm, which eliminates the adverse effects of objects in motion and moving cameras. This controls the residual image effect artifacts caused by movement or motion that eliminates annoying ghosting and ringing imagery.

Natural Color

ProHawk Vision's effective patented color adjustment algorithm restores natural color representations caused by difficult environments. This restores natural full color recognition in low contrast situations, while eliminating color oversaturation situations. See clearly in low contrast fog, rain, and snow or high contrast lighting situations.

Superior Object Detection and Tracking

Object detection and tracking is now more powerful than ever, supercharged by ProHawk Vision's patented CV algorithms that increase detection, raise confidence levels, and simply reveal what needs to be seen. Now you can detect and track: Bicycles, Buses, Cars, Motorcycles, People, Trains, and Trucks…with vastly increased confidence.

Feature	Description	Benefit
Live Video Sources	Live Video Enrichment Directly from a Camera or VMS	Dramatically Clarifies Secure Live Video with No Video Lag or Frame Skipping
Expose Fine Details	Patented Detail Enhancement Algorithm Reveals Intricate Details, Even in Good Quality Video	Accurately Identify Objects, Weapons, Vehicles, License Plates, Faces, People, Animals, and Problems
Sensor Coverage	Eliminate Humid Climate Differentiation Struggles Between Body Heat and Ambient Surroundings	Increase Range and Accuracy of Thermal Sensors by 300% and Infrared Cameras by 500%
Preset and Custom Filters	One-click Presets and User Custom Filters	Instantly Clarifies Live Video to Enable Decisive Decisions and Conclusions
Eliminate Effects of Motion	Patented Motion Adaptation Algorithm Controls Residual Image Effect Artifacts	Substantially Increases Recognition by Removing Annoying Ghosting or Ringing Imagery
Natural Color	Patented Color Algorithm Eliminates Oversaturation and Improves Color in Low or High Contrast Video	Restores Natural Color Representations
Refined GUI	More Options for Display with Ability to Show Original and Enriched Streams at the Same Time	Better Enrichment and More Control Over Results for Quicker Assessment and Less Delay for Action

Better Operations with Cost Savings

- Integrate with Any IP Camera and VMS
- Reduce Costs of Exterior Lighting and IR Illuminators
- Enhance Visual Quality to Identify Problems
- Better Accuracy of Monitoring, VA, AI, or CV Systems

- Extend Life of Existing Cameras Postponing Expenses
- Dramatically Increase Effectiveness of Facility Security
- Visibility in Any Challenging Environment
- Increase Recognition for Operators, VA, AI, or CV Systems

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System Requirements
Operating System
Windows 7, 8, or 10

NVIDIA GPU
Maxwell, Kepler, Pascal,
Volta, Turing, Ampere

ProHawk makes no warranties expressed or implied in this summary.