

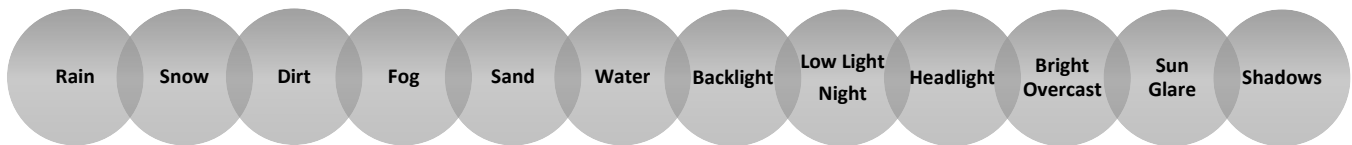
AI-Enabled Computer Vision

ProHawk Vision Server transforms video in real time, on a pixel-by-pixel basis, overcoming all environmental obstacles including rain, snow, sand, pollution, or other debris, converting video to unobstructed daytime safety levels with unmatched visual clarity. ProHawk Vision's AI-enabled computer vision (CV) algorithms optimize each pixel, influenced by surrounding pixels, while traditional products manipulate the full image. This produces live video streams and clearer images that are intelligible and useable for humans, video analysis (VA), and AI.

ProHawk Vision works within less than a blink of an eye (<3 milliseconds) allowing earlier and greater object detection and confidence levels, resulting in real-time insights and decision-making across innumerable industry applications.

Environmental Problems Solved

ProHawk Vision addresses challenges viewing and acting on high-quality live video due to environmental factors. Problems typically arise from two main sources: challenges related to lighting conditions, including both excess or insufficient light, and issues stemming from particulates of varying sizes that obstruct the view.



New features in ProHawk Vision Server 6.0 include:

Industry Standard Plug and Play Interfaces

Envision seamless scalability of crisp, live video streams without any lag or frame skipping, sourced from cameras or VMS streams, using a comprehensive range of supported industry-standard transports and protocols. Authenticate usernames and passwords for live cameras and VMS systems, ensuring secure access to all live video feeds.

Expose Fine Details

ProHawk Vision algorithms uncover the intricate relationships between individual pixels and their surrounding counterparts, unlike conventional methods that treat the entire image as a single entity. This approach results in live video streams that are comprehensible and highly practical for human observation, VA, and AI applications.

Sensor Coverage

In humid climates, challenges arise from heavy rainfall and fog, which restrict sensor range and accuracy, compounded by issues like sun glare. ProHawk not only enhances the quality of color camera streams but also significantly boosts the coverage range and accuracy of thermal sensors by 300% and infrared cameras by 500%.

Automatic Filters

Through AI-enabled CV algorithms, ProHawk Vision automatically adapts to low-quality video inputs, swiftly identifying and addressing imperfections. With unparalleled efficiency, it restores clarity, sharpness, and detail to even the most degraded footage, ensuring optimal viewing experience or consumption by VA, AI or CV.

Eliminate Effects of Motion

ProHawk Vision Server features a patented motion adaptation algorithm designed to mitigate the negative impact of moving objects, such as raindrops or snowflakes. This algorithm effectively manages residual image artifacts caused by motion, eliminating bothersome ghosting and ringing effects in imagery.

Natural Color

An efficient and patented color adjustment algorithm restores natural color accuracy in challenging environments. This algorithm enhances full-color recognition in low-contrast conditions while preventing color oversaturation, to experience natural visibility in low-contrast fog, rain, and snow, as well as high-contrast lighting conditions.

Superior Object Detection and Tracking

With ProHawk AI's patented computer vision algorithms, object detection and tracking achieve unparalleled accuracy, reliability, and speed. These algorithms not only improve detection capabilities and boost confidence levels, they also enable quicker first-frame detection, supporting swift and effective analysis.

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, Vehicles, License Plates, 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 High or Low Contrast Video	Restores Natural Color Representations
Browser GUI	Operators Able to View Multiple Streams at the Same Time, and Managers Can Quickly Setup Headless Server	Better Enrichment and More Control Over Results for Quicker Assessment and Less Delay for Action

See More Do More!

- 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, analysis, or AI systems
- Extend life of existing cameras postponing replacement
- Dramatically improve effectiveness of facility security
- Visibility in any challenging environment
- Increase recognition for operators, analysis, or AI systems



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System Requirements

Windows Server 2012-2022
Ubuntu 18.04.5 LTS, 20.04.1 LTS



NVIDIA A16, A40, L4, L40, T4