

Improve Live Video & Fast

ProHawk Vision™ Server is an application that can dramatically improve the quality of a live camera streams, or live streams from a Video Management System (VMS). ProHawk Vision Server improves noisy, obscured, or unclear live video into sharper, clear video with intricate details. This makes live video streams more intelligible and useful for humans, video analysis, artificial intelligence (AI) and computer vision (CV).

There are many problems that obstruct capturing good live video. When live video is subject to difficult conditions, these problems generally 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.

Particulate Problems

Rain Snow Dirt Fog Sand Water

Light Problems

Backlight Low Light Night Headlight Bright Overcast Sun Glare Shadows



ProHawk Vision Server 5.0 solves problems that cause poor live video with a variety of new features, enhancements and upgrades to support a wider range of platforms, formats, and conditions. While continuing to offer the world's first true scalable live video improvement solution with unprecedented imagery details. New features in 5.0 include:

Live Video Sources

Imagine unlimited scale of dramatically improved live video streams with no video lag or frame skipping from cameras or VMS streams, and an expansive list of supported industry standard transports and protocols. We provided the ability to add usernames and passwords authentication for live cameras and VMS's to ensure secure access to all live videos. No matter the source of your media, you're covered.

Expose Fine Details

Clearly see fine details to identify specific objects, situations, vehicles, and people. The powerful detail improvement algorithm exposes fine details to notice 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

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

Preset and Custom Filters

A wider range of one-click preset filters let users quickly and confidently reach improved 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 conditions. Users can now create their own custom one-click preset filters based on their advanced filter settings. ProHawk can improve poor low or high resolution live video interpreted by operators, video analysis or computer vision.

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 cause by movement or motion that eliminates annoying ghosting imagery.

Natural Color

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

Browser Graphic User Interface

With a fresh new look, our operators and management consoles are now more powerful than ever with added support for side-by-side viewing. Now you can view the original and improved file or live video next to each other for easy to view comparisons. The videos can be viewed in their own windows including full screen.

Feature	Description	Benefit
Live Video Sources	Live video improvement directly from a camera or Video Management System (VMS)	Dramatically Improves Secure Live Video with No Video Lag or Frame Skipping
Expose Fine Details	Patented Detail Improvement 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	Improve Range and Accuracy of Thermal Sensors by 300% and Infrared Cameras by 500%
Preset and Custom Filters	One-click Presets and User Custom Filters	Instant Improvement to Live Video that Enables Decisive Decisions and Conclusions
Eliminate Effects of Motion	Patented Motion Adaptation Algorithm Controls Residual Image Effect Artifacts	Removes Annoying Ghosting Imagery, and Substantially Improves Recognition
Natural Color	Color Algorithm Patent Eliminates Oversaturation and Improves Color in High or Low Contrast Video	Restores and Improves Natural Color Representations
Browser GUI	Operators Able to View Multiple Streams at the Same Time, and Managers Can Quickly Setup Headless Server	Better Improvement and More Control Over Results for Quicker Assessment and Less Delay for Action

Clear Value

- Integrate with Any IP Camera and VMS
- Reduce Costs of Exterior Lighting and IR Illuminators
- Improve Visual Quality to Identify Problems
- Improve Accuracy of Monitoring, Analysis, or AI Systems
- Extend Life of Existing Cameras Postponing Expenses
- Dramatically Improve Effectiveness of Facility Security
- Visibility in Any Challenging Condition
- Improve Recognition for Operators, Analysis, or AI Systems



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System Requirements
Operating System
Windows Server 2012-2019
Ubuntu 18.04.5 LTS, 20.04.1 LTS
NVIDIA GPU
Maxwell, Kepler, Pascal,
Volta, Turing, Ampere