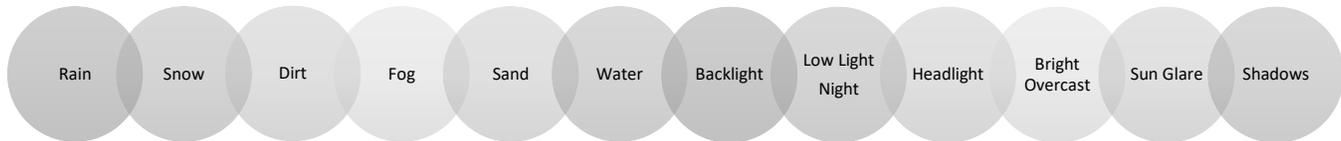


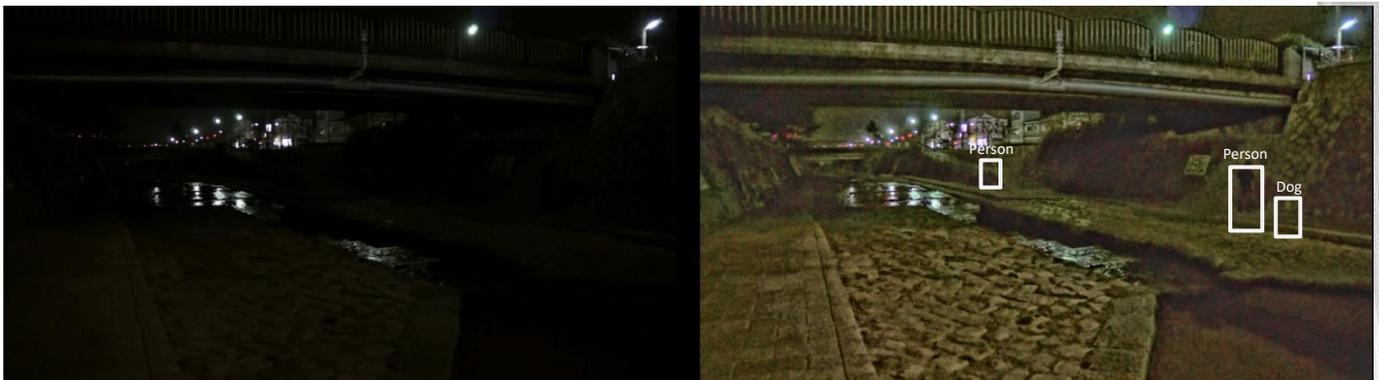
## Automatic Computer Vision Restoration

Computer Vision (CV), Artificial Intelligence (AI), and deep learning promise to revolutionize automation in scores of industries and applications. A major problem of AI systems trained on pristine imagery are errors due to the inability to interpret real-world, unconstrained environments where video is less than perfect. 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: light or lack of it; and particulates.

### Environment Problems Solved



ProHawk Vision five patented industry-leading CV automated restoration algorithms are powered by the parallel processing GPUs and NVIDIA frameworks that corrects noisy, obscured, or unclear video into sharp, clear, visible video with intricate details. ProHawk Vision dramatically enriches the quality of live cameras, Video Management Systems and recorded video with latency as low as 2ms that is undetectable to the human eye. PerfectPixel™ algorithms reveal each pixel's true representation based on light reflection and refraction of particulates automatically producing live video that is intelligible for humans and AI. Traditional products manipulate the full image unable to extract details.



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 6.0 include:

### **Optimized Object Detection and Tracking**

Patented automated environmental restoration algorithms improve the quality of real-world environment video enabling superior AI with earlier and more detections at higher confidence levels without the need to retrain existing AI models. Object detection and tracking is now more powerful than ever by simply revealing what needs to be seen.

### **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%.

## Automated Filters

AI based automatic filters enable the clearest imagery quickly, confidently, and efficiently. The automated computer vision filters provide clear video for systems to reach actionable results fast for a wide range of difficult live video environments. Users can also 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.

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%
Automatic Filters	Automatic Computer Vision 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
Optimized AI	Superior Artificial Intelligence Results	Earlier and More Detections at Higher Confidence Levels Without the Need to Retrain Existing AI Models

## Better Operations with Cost Savings

- Earlier and More Detections with Higher Confidence
- Improve Visual Quality to Identify Problems
- Integrate with Any IP Camera and VMS
- Reduce Costs of Exterior Lighting and IR Illuminators
- Extend Life of Existing Cameras Postponing Expenses
- Dramatically Increase Effectiveness with No Retraining
- Exceptional 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, 10, or 11

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