I-VET - **I**FT's **V**ideo **E**nhancement **T**oolkit

I-VET is a software package that implements state-of-the-art video enhancement technologies to extract the maximum amount of information from video.

Two video enhancement tools are included in I-VET, a clutter/particulate removing tool and a shadowed region enhancer. The clutter/particulate tool is able to perform tasks like dehazing and enhancement under thin to moderate cloud coverage of aerial videos.

The shadowed region enhancer, enhances the details in shadowed regions. Shadows often hinder human visual inspection and deteriorate the performance of the automated video processing tasks such as target detection, recognition, and tracking.

Our toolkit is designed to be used pre-processing for any multi-INT fusion involving outdoor video such as WAMI and overhead imagery. It is part of our complete line of products for data fusion.

Specifications & Features

- Reveals under shadows
- Improve aviation safety
- Shadowed region enhancement features 1.05 frame per second for current MATLAB™ based implementation*
- Clutter/particulate removal 1.3 frame per second for current MATLAB™ based implementation*
- 100% open source codes

Our toolkit provides more situational information, for more informed decision making.

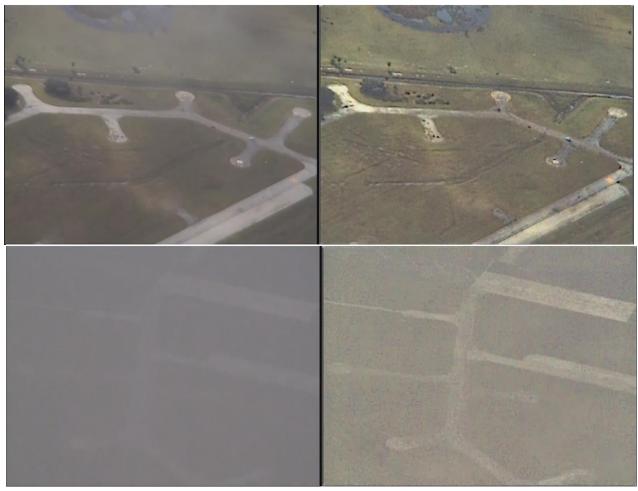*Based on Intel i5-4590 CPU @ 3.30 GHz, 64 bit Windows 10 OS. Frame size: 480 x 720.

MATLAB^{TM} Based Development Prototype

Clutter/Particulate Removal

Before Enhancement   **After Enhancement**

Shadowed Region Enhancement

Before Enhancement   **After Enhancement**

Company Overview

We are a rapidly growing company headquartered outside Washington, DC, in Germantown, MD. IFT is comprised of scientifically creative engineers with the rare ability to combine theoretical research and hardware implementation. IFT was founded in 2011. We are a woman-owned, small disadvantaged business.

Highlighted Research Areas:

- Signal and image processing
- Cooperative control and collaborative systems
- Networks and communication systems
- ATR, tracking and sensor fusion solutions
- Game and information theoretic solutions
- Display and user-interactive systems
- Antenna design and hardware implementations

Contact

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