



Real-Time Image Processing Of Full Motion Video

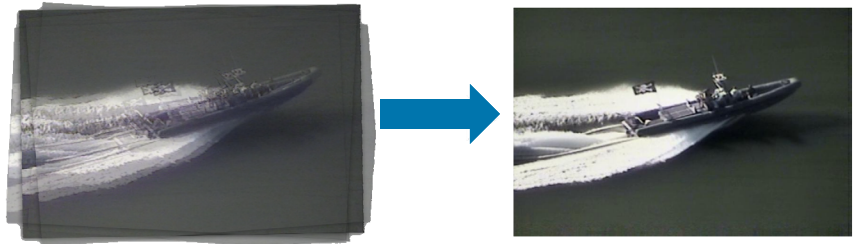
Features & Benefits

- Real-time processing of live HD Full Motion Video (FMV)
- GPU-accelerated Image Processing
- Visual quality superior to hardware-based solutions
- Super-resolution reconstruction of FMV
- Removal of atmospheric haze
- ISR-tuned stabilization
- Sophisticated de-blurring
- Automatic lighting and contrast correction
- Real-time mosaicing
- Real-time VMTI
- Integrates with any FMV system
- Works with EO and IR imagery
- On-the-fly creation of still and motion imagery products
- MISB-standards compliant
- Annotation support
- Embedded metadata support

Ikena ISR: Better quality video. Now.

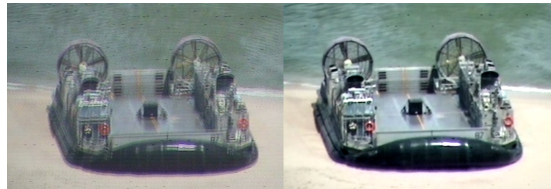
Advanced Real-time Image Processing for Full Motion Video Analysts

Full Motion Video (FMV) suffers from quality issues that prevent the FMV analyst from providing the best information to the warfighter. Regardless of the source, problems like low resolution, shake, poor lighting, and noise can afflict even high-end systems, thanks to less-than-ideal capture conditions, atmospheric distortion, or video compression.



MotionDSP's Ikena® ISR (Ee-Kehn-Ah) software uses patented super-resolution technology to comprehensively address video quality problems in real-time. Ikena ISR runs on off-the-shelf Windows PCs, from laptops to high-end workstations. Ikena ISR is the fastest, easiest, and most powerful tool for FMV Processing, Exploitation, and Dissemination (PED), uniquely able to provide real-time results on live video feeds.

Unrivaled Digital Video Processing



With certified Windows PC hardware, MotionDSP's Ikena ISR can perform all of the following enhancements simultaneously on standard definition and HD video at 30 frames per second at low latency:

- ISR-tuned stabilization
- Super-resolution reconstruction
 - Removal of compression artifacts
 - Removal of atmospheric haze
- Automatic lighting correction
- Real-time mosaics
- Automatic change detection

GPU-Accelerated for Real-Time HD

MotionDSP's Ikena ISR software for Windows has been optimized to leverage multi-core Intel or AMD CPUs and NVIDIA and AMD graphics processors (GPUs) for real-time video processing on live feeds.



Ikena ISR's patented algorithms provide the fastest, highest-quality super-resolution and stabilization results.

Integrates with any Full Motion Video System

Ikena ISR has been designed with an open architecture, allowing it to integrate with any Full Motion Video system. Ikena ISR has been tested with SAIC VPC/DMAX and General Dynamics MAAS. Any system that supports MISB-compliant IP video can integrate with Ikena ISR. Ikena ISR can also connect directly to DirectShow-based applications such as VLC, Skype, and VSee.



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Flexible to Any Input

Thanks to its flexible software implementation, MotionDSP's Ikena ISR works with a wide range of video sources. Ikena ISR is flexible to accept IP or analog video from any source, including video capture devices, IP encoders, or a FMV system. Ikena ISR can also export streaming IP video and motion imagery products

Video Feeds or Flat Files



Real-time Processing on COTS Hardware

MotionDSP



Capabilities



Enhanced, re-constructed video



Seamless Video Mosaics



Visual Moving Target Indicator (VMTI)

Forensically Valid

MotionDSP's software is based on years of R&D and academic research, and has been used successfully in prosecuting cases in both US and UK courts, and is in use at the US Secret Service, Scotland Yard, the US Navy (SOCOM), and US Intelligence customers.

Recommended PC Systems

For real-time processing of SD video feeds, MotionDSP recommends running Ikena ISR on PC hardware featuring:

- 64-bit Windows 7
- Intel or AMD 6-Core CPU 2.5Ghz or better
- 8GB RAM
- *For Desktop Systems:* AMD v8800 or NVIDIA Tesla 2050 graphics processor
- *For Laptop Systems:* AMD v7820M or NVIDIA Quadro 5010M graphics processor

Hardware Options



Rugged



Workstation



Scalable Server

For More Information, Contact MotionDSP



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