

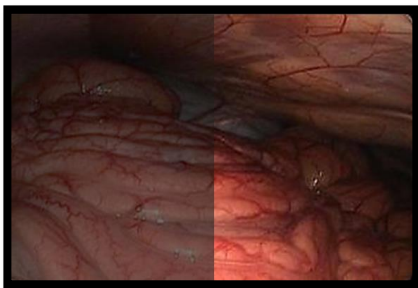
# adroitVista SDK

Product Brochure

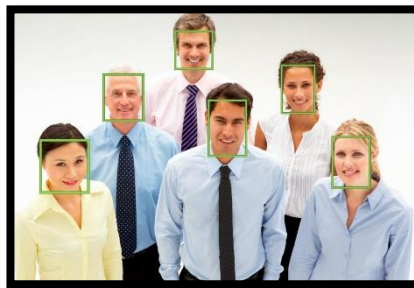


**adroitVista SDK** is Ittiam's SDK for realizing high-performance **machine vision, deep learning and visual analytics** solutions. adroitVista offers a wide range of software modules that are optimized for the underlying processor to yield best results with minimum resource footprint. These modules offer reliable operation under diverse operating environments using proven algorithms. Offered with simple C-callable APIs, adroitVista modules are easy to integrate and highly configurable.

Category	adroitVista SDK Modules
Video Pre/Post Processing	Scaling, De-interlacing, Frame Rate Conversion, Denoising, Contrast Enhancement, Edge Sharpening, Video Stabilization, Image Stitching, Fisheye Correction, Rotation, Mirroring, Composition, Blending, etc.
Machine Vision, Deep Learning & Analytics	Motion Detection, Object Tracking, Object Counting, Loitering Detection, Left/Removed Object Detection, Camera Tampering Detection, Perimeter Violation Detection, OCR, Face/Gesture Recognition, Pattern Matching, Object Classification, Stereo Matching, etc.



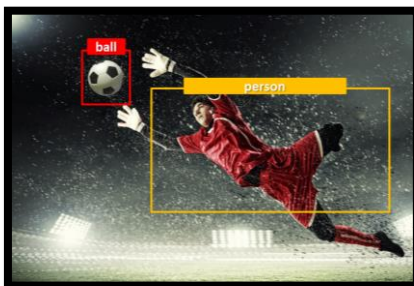
**Contrast Enhancement**  
(Pre/Post Processing)



**Face Detection**  
(Machine Learning)



**Object Counting & Tracking**  
(Machine Vision & Analytics)



**Object Classification**  
(Deep Learning)

## PROCESSOR SUPPORT

**NVIDIA Tegra X1/X2**  
(L4T Linux)  
Up to 2160p60 video  
GPU accelerated

**Sitara™ AM57x**  
(Linux)  
Up to 1080p60 video  
DSP/EVE accelerated

**Intel x86**  
(Windows/Linux)  
Scalable performance across  
processor configurations

## HIGHLIGHTS

- Modules optimized for best accuracy, lowest computational complexity
- Reliable operation across camera types (static, moving), operating environments (daylight, low-light, etc.)
- Enables high-performance intelligent video processing & analysis to embedded solutions.
- Suitable for Industrial, Surveillance, Robotics, Enterprise, Medical and Defense applications

## OFFERING

- Object code for each SDK module
- Simple C/C++ APIs
- Configurability to enable fine-tuning based on use case scenario
- Sample application in source code for illustrating use cases
- Easy-to-use Documentation

adroitVista SDK can be integrated into multimedia SDKs and systems for realizing **intelligent video streaming and recording** solutions. Ittiam offers these as part of its **Lime** and **Clove** families of products.



Ittiam's suite of high-performance 4K UHD video solutions



Ittiam's suite of low-power Full-HD video solutions

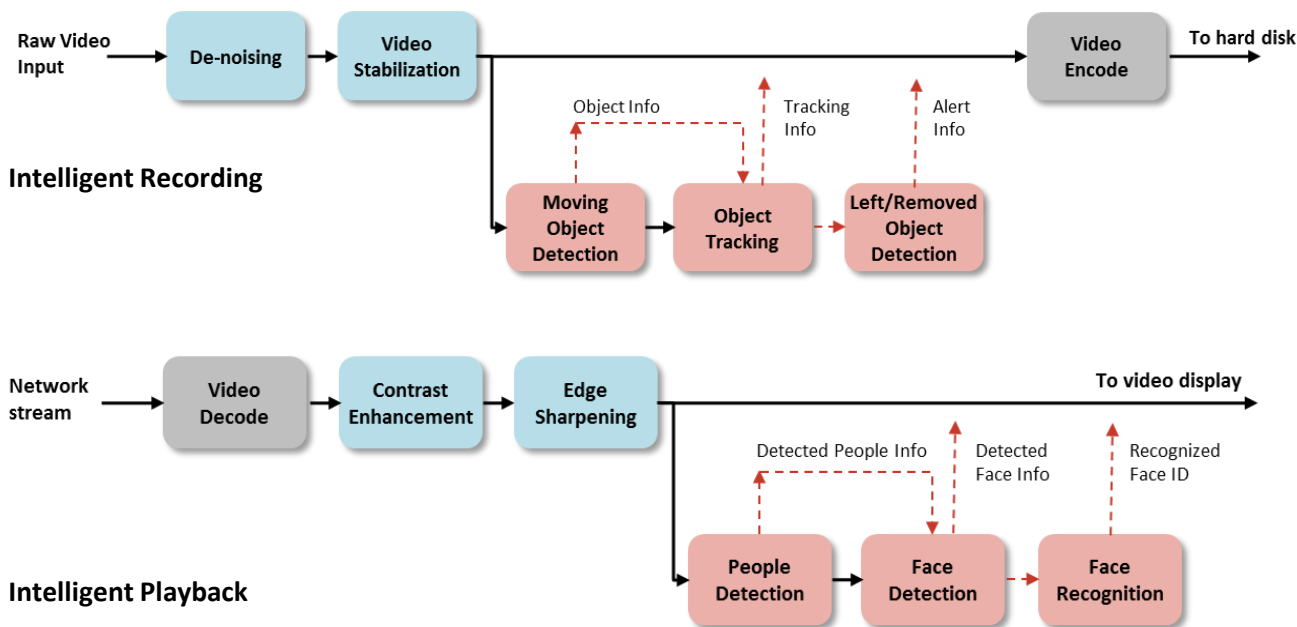
### Target Use Cases

### The adroitVista Advantage

INTELLIGENT SYSTEM SOLUTIONS

Intelligent Encoder (Streaming Server)
Intelligent Decoder (Player)
Intelligent Recorder (DVR/NVR)
Intelligent Transcoder (Gateway)

<p><b>Optimized use of underlying processing cores for best performance</b>                  Ex: On AM57x, adroitVista modules may run on ARM Cortex-A15, C66x+ DSP, SGX544/GC320 GPU or EVE; may use OpenCV, DSPLIB, EVELIB and TIDL libraies in PSDK package</p>
<p><b>Re-use, enhance and optimize pre-existing libraries</b>                  Ex: On NVIDIA Tegra X2, adroitVista modules run on ARM Cortex-A57 or Pascal GPU cores; may use OpenCV, VisionWorks functions and CUDA kernels in L4T package</p>
<p><b>Compatible with standard deep-learning technologies</b>                  Frameworks: Tensorflow, Caffe, Darknet...                  Models: DetectNet, YOLO, GoogleNet, Inception v2, Facenet,...                  Datasets: COCO, KITTI, Fddb, ImageNet, Adience,...</p>



For more details, write to [ids-mkt@ittiam.com](mailto:ids-mkt@ittiam.com) or visit [www.ittiam.com/products/adroitVista](http://www.ittiam.com/products/adroitVista)

#### AMERICAS CONTACT

**Bob Lee**  
 Senior Director  
 +1-847-477-2411  
[bob.lee@ittiam.com](mailto:bob.lee@ittiam.com)

**Dirk Peters**  
 SVP, Business Development  
 +1-408-850-7244  
[dirk.peters@ittiam.com](mailto:dirk.peters@ittiam.com)

#### EUROPE CONTACT

**Elodie Livernette**  
 Business Development  
 +33-185086071  
[elodie.livernette@ittiam.com](mailto:elodie.livernette@ittiam.com)

**Marc Guillaumet**  
 SVP, Marketing  
 +33-621403654  
[marc.guillaumet@ittiam.com](mailto:marc.guillaumet@ittiam.com)

#### ASIA CONTACT

**Chaucer Kuo**  
 GM, Sales & Marketing  
 +86-1391-037-0450  
[chaucer.kuo@ittiam.com](mailto:chaucer.kuo@ittiam.com)

**JAPAN**  
**Kazuyoshi Yui**  
 Manager, Business Development  
 +81-50-3632-6801  
[kazuyoshi.yui@ittiam.com](mailto:kazuyoshi.yui@ittiam.com)

**KOREA**  
**YJ Kim**  
 Manager, Business Development  
 +82-10-3754-6431  
[yjkim@ittiam.com](mailto:yjkim@ittiam.com)