

Video Analytics is the capability of automatically analyzing video to detect and determine temporal events that are not based on a single still image. As such, it can be seen as the automated equivalent of the biological visual cortex (The visual cortex of the brain is the part of the cerebral cortex responsible for processing visual information. It is located in the occipital lobe, in the back of the brain).

Video Analytics technical capability is used in a wide range of domains including entertainment, health-care, retail, automotive, and transportation. With cost effect advances in technology, RTI Systems (RTIS) has implemented Video Analytics to our client base.

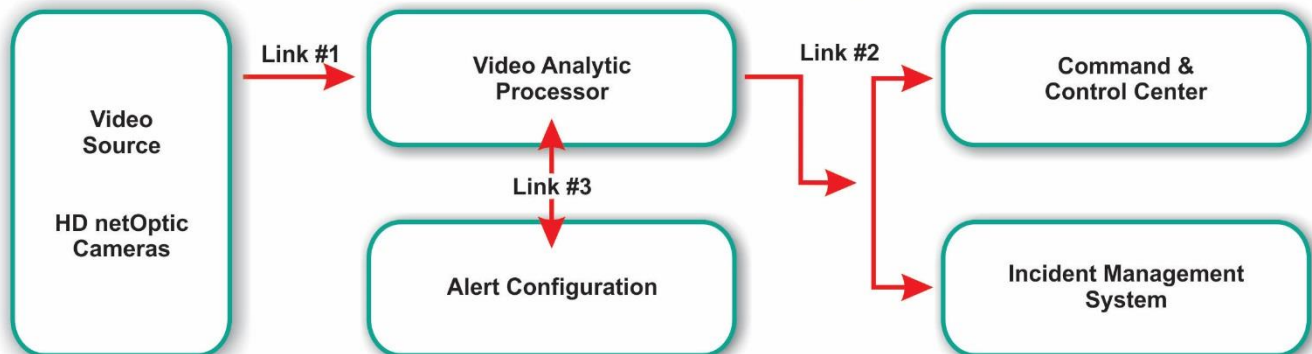
Many different functionalities can be implemented in Video Analytics. Video Motion Detection is one form where motion is detected with regards to a fixed background. More advanced functionalities include video tracking and egomotion estimation.

Based on the internal representation that Video Analytics generates, it is possible to build other functionalities, such as identification, behavior analysis or other forms of situation awareness.

**CHANGING  
THE WAY**

Similar to human vision, which has a perceptual and cognitive aspect, video analytics uses computer vision algorithms which enable it to perceive or see, and machine intelligence to interpret, learn and draw inferences. Video Analytics consists of algorithms that detect movement or changes in live HD “real-time” and recorded video to see whether the movement or changes mean a possible threat is about to occur or is occurring. These algorithms work by examining each pixel of the video and putting together all the pixel changes. If many pixels are changing in one area and that area is moving in a direction, the software considers this to be motion.

## VIDEO ANALYTICS FLOW



- **Link 1** is the feed from the video source (e.g. High Definition netOptic camera(s)) to the Video Analytic Processor. This link is a LAN/WAN network link, which are made up of Wi-Max Wireless and Cat6e network cabled connections.
- **Link 2** carries the alert confirmation messages to the Command & Control Center agents and the Incident Management System.
- **Link 3** is used for alert configuration and maintenance purposes. It is a direct keyboard / screen / mouse connection to the Video Analytic Processor.



## RTIS VIDEO ANALYTICS:

Video Analytics, also known as Intelligent Video Surveillance - Remote Monitoring (IVS-RM) used in conjunction with RTIS High Definition (HD) netOptic cameras allows our Command Center operators to easily monitor and secure your project and makes detecting threats or unwanted visitors extremely effective.

With the integration of RTIS Video Analytics and our High Definition (HD) megapixel netOptic cameras, we call this "Intelligent Video Surveillance - Remote Monitoring (IVS-RM)". RTIS Intelligent Video Surveillance - Remote Monitoring offers many benefits to you and your project.

## RTIS "REAL-TIME" LIVE VIDEO MONITORING

RTIS netOptic cameras and associated software display live video in "real-time" at extremely high frame rates. In addition, motion detection alerts are also triggered in "real-time". These alerts notify our Command Center immediately upon a threat being detected. Depending on the policies and alerts that we have instituted for your project, our operators will be automatically notified of this motion or other actions and can make logical human decisions based on the threat level.

**MORE  
PERSPECTIVE**

## IMPROVES QUALITY OF SURVEILLANCE

With Intelligent Video Surveillance - Remote Monitoring the RTIS Command & Control Center is notified immediately when unusual activity or threats are detected. This allows our highly skilled personnel to react instantly and determine the threat level in "real-time".

## ACCURATE DETECTION

Intelligent Video Surveillance - Remote Monitoring software has the ability to detect specific behaviors. This means if someone is heading towards somewhere they should not be, you will be warned. The software also has the ability to be used indoors and outdoors, even in low light situations. Imagine being able to detect a car thief trying to break into a car in your parking lot in the middle of the night.

