Visual Profiler

A revolutionary solution for the detection, interpretation, and classification of objects of interest

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With increasing volumes of imagery captured through a variety of sensors, it remains extremely difficult to manage rapid identification and interpretation of objects of interest. Addressing this challenge, Visual Profiler technology delivers automated detection and distinct counts of items from both aerial and satellite imagery.
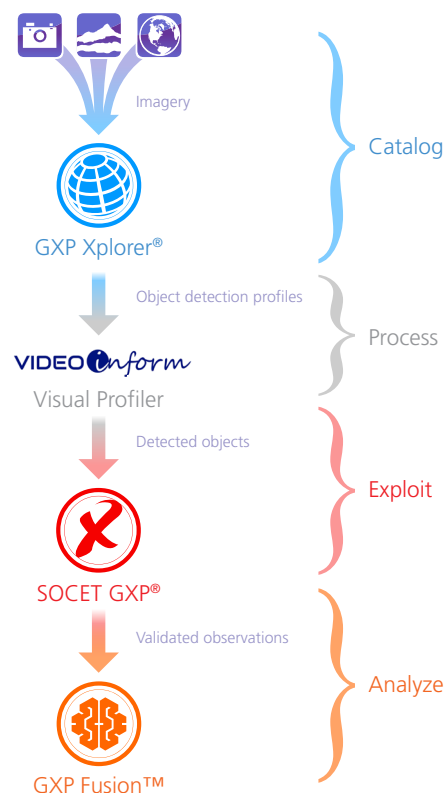
Developed by Video Inform™ and integrated with the GXP Xplorer® and SOCET GXP® software applications, Visual Profiler utilizes a cognitive vision and profiling methodology (using machine learning algorithms and state of the art deep learning schemes) to provide unlimited object definition and profiling flexibility. From distinct infrastructure components (structures, antennae, powerlines, etc.) and specific vehicle types, to vessels and wildlife, this breakthrough technology enables identification of a wide variety of objects of interest.

Resilient to variations in lighting, look angle, occlusions, and seasonal differences, Visual Profiler is adjustable to virtually any sensor and resolution. In addition, it produces high detection rates by leveraging an intuitive human-on-the-loop feedback mechanism to continuously increase detection precision.

Visual Profiler is applicable to a broad range of needs including intelligence, facility security, law enforcement, and disaster response. The application provides orders of magnitude time savings over manual image interpretation methods and, as an analyst-oriented application, does not require the involvement of data scientists and/or engineers.

The GXP Xplorer software solution automatically runs Visual Profiler on new images to detect objects of interest. These detections are then fed from GXP Xplorer into SOCET GXP structured observation workflows for validation and product creation. Once validated, these observations flow into GXP Fusion™ software for advanced temporal, relationship, and predictive analysis.

Imagery

GXP Xplorer®

Catalog

Object detection profiles

VIDEO inform
Visual Profiler

Process

Detected objects

SOCET GXP®

Exploit

Validated observations

GXP Fusion™

Analyze

GXP™ Geospatial solutions to ensure a safer world.

VIDEO inform
FOR A BRIGHT VISION

BAE SYSTEMS

Detection and classification of pickup trucks in an urban environment.

Identification and count of all vehicles in a suburban region.

Identification of solar water heaters on rooftops of urban housing.

Observation of Savannah elephant population in sub-Saharan Africa.

All imagery provided by Video Inform™

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