ADAMS
ADAPTIVE MULTISENSOR SYSTEM

The Adaptive Multisensor System integrates a wide range of surveillance sensors such as radars, thermal imagers, video cameras and other devices into one complex but easily usable system. While the radars provide continuous observation of a large area detecting any movements, the electro optical sensor arrays provide detailed picture of any targets for accurate identification.

The software layer of the ADAMS is a Windows® operating system based application, fully controllable by one operator. The software uses map based visualization which presents the geo-located sensors, detected targets and Points of Interest with easily understandable, user friendly icons.

The controller software provides enhanced situational awareness by integrating several devices, such as radars and electro-optical sensors into a complex but easily usable multisensor system. The adaptive algorithms couple the different devices and provide a smooth slew to cue operation.

The scalable network architecture allows sensors to distribute their data to multiple clients and provides remote control functionality.

All radar detections, classified tracks, video frames and operator interactions are automatically recorded and can be easily replayed by the software.

BENEFITS

- ✔ Wide range of integrated devices
- ✔ Smooth slew to cue (camera) operation
- ✔ Scalable network architecture
- ✔ Intuitive, easy to learn graphical user interface with user friendly icons
- ✔ Large range of raster and vector map formats (Geo Tiff, DTED, SHP, geo referenced images)
- ✔ Fully logged operation and replay
- ✔ Easy to integrate into more complex C4i systems.

WIDE RANGE OF USAGE

The system is able to secure borderland areas, installations, pipelines, facilities, airports and other sensitive areas and to detect possible intruders from long distances.

WIDE RANGE OF USAGE

Radar

Our 'Beagle Mk. II. and 'Beagle FT Mk II.' radars are capable of detecting and recognizing moving targets on or close to the ground. The high tech DSP technologies can differentiate between moving and stationary targets. Based on the state-of-art technology, our radars can determine the exact parameters of the detected targets; can track and classify the movements even in changing environmental conditions.

Thermal Camera

Thermal cameras provide an easily understandable view of the observed area even at poor visibility conditions. These cameras are detecting the thermal radiation of the observed objects, humans and animals. Thermal cameras can be used in darkness and actually at all weather conditions, the cooled models are useable in foggy and rainy environment, while the uncooled ones are more fit to see through smoke.

Video Camera

These devices are providing the well known visual image of the observed area. The wide zoom capability enables the user to see the same image in the optical range as the thermal imager presents, but the user can see the overview of the area. The high tech algorithms provide automatic target following, classification and alarm to the user.

Others

Our system is capable to control and process data from sensors which are using different operation principles. We can handle acoustic and seismic sensors, optical or microwave barriers, motion detectors, etc. These products can complete the capabilities of the electro-optical sensors and can fulfill special requirements.

CONTROL SOFTWARE

Software Architecture

The basic software of the control system is the Sensor Manager Server (SMS) that performs direct communication with the connected sensors and forwards their output data. Visualization is realized in the Sensor Control Interface (SCIN) that displays data delivered by SMS in required format and provides full sensor control functionality from this surface.

The SMS can serve several SCINs and the SCIN can control a number of SMSs. So the sensors distributed over the surveillance area can not only be directly controlled by their dedicated operator unit but also can be addressed and requested by a remote control center or other remote sites.

Special Features

- Display and Control sensors from one user interface
- Support of multiple monitors and split screens
- Record and replay of all displayed data
- Visualization of targets by icons
- Automatic track forming and classification
- Automatic optical target following
- Periodic polling of optical marker points
- Access by authorization levels