

# CPNI

Centre for the Protection  
of National Infrastructure

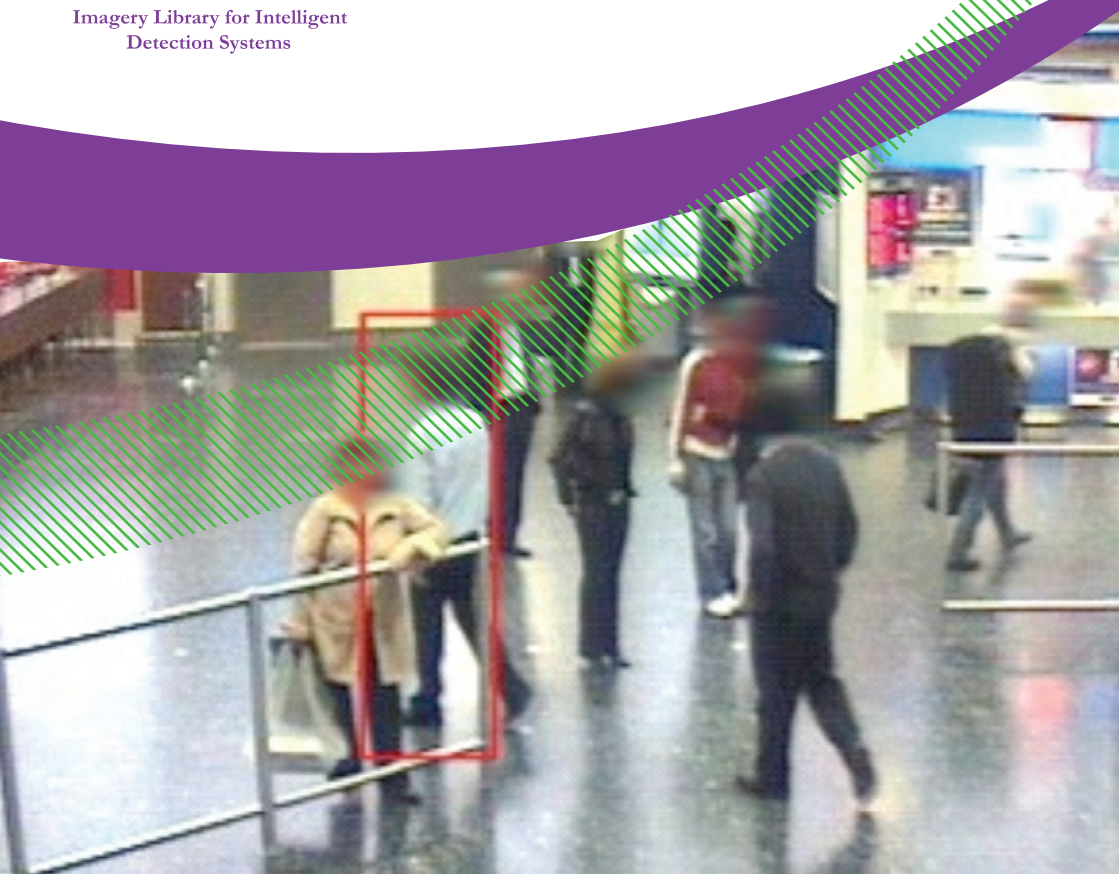


Home Office

## Imagery Library for Intelligent Detection Systems



Imagery Library for Intelligent  
Detection Systems



## **i-LIDS - the government benchmark for VA systems**

Video Analytics (VA) systems provide automated real-time video analysis and event detection. The Centre for the Protection of National Infrastructure (CPNI) and the Centre for Applied Science and Technology (CAST, formerly HOSDB) are committed to promoting the development of effective VA systems to help in policing and counter terrorism operations. To assist in this CAST, in partnership with CPNI, has developed i-LIDS.

i-LIDS consists of a library of CCTV video footage datasets based around six 'scenarios' central to government requirements. The footage accurately represents real operating conditions and potential threats. VA systems are required to detect defined 'alarm events' within a scene, for example the presence of a parked vehicle or a bag abandoned by its owner.

### **Available datasets**

Datasets contain video footage from each scenario. We are inviting VA systems manufacturers and machine vision academics to buy training and test datasets to help them develop their systems.

### **Format and system requirements**

Each of the event detection scenarios are provided on a 500GB hard drive. The multiple-camera tracking datasets and the new technologies datasets will be provided on a 1TB hard drive. Both of the above are USB2 / Firewire external hard drives. The video is rendered in Quicktime MJPEG format. The free Quicktime viewer is required to view the video.

# i-LIDS scenarios

i-LIDS consists of six scenarios

## 1. Abandoned Baggage Detection

- VA systems must detect abandoned baggage left by individuals on a station concourse.



## 2. Doorway Surveillance

- VA systems must detect anybody entering or exiting monitored doorways.



# i-LIDS scenarios

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## 3. New Technologies

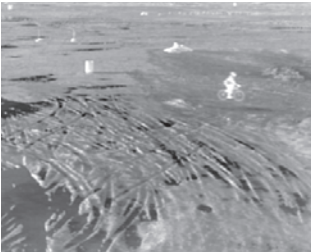
### Near Infrared

- VA system must detect any persons, vehicles or boats in the restricted area in a near infrared modality.



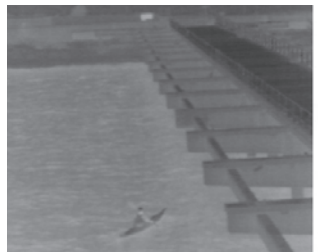
### Medium Wave Thermal Imager

- VA system must detect any persons, vehicles or boats in the restricted area in a medium wave thermal modality.



### Long Wave Thermal Imager

- VA system must detect any persons, vehicles or boats in the restricted area in a long wave thermal modality.



# i-LIDS scenarios

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## 4. Parked Vehicle Detection

- VA systems must detect vehicles parking in defined zones and persons leaving those vehicles.



## 5. Sterile Zone Monitoring

- VA systems must detect the presence of persons in a restricted area or 'sterile zone'.



# i-LIDS scenarios

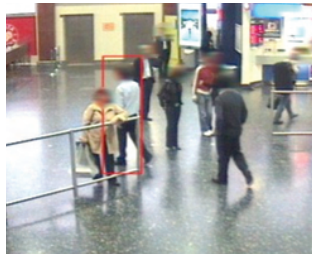
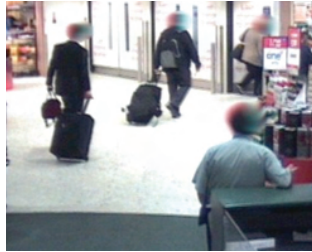
i-LIDS consists of six scenarios

## 6. Multiple-camera Tracking

- VA systems must be able to track a person across the entire camera set.

Systems may be evaluated for one of two roles:

- Tracking across three overlapping cameras.
- Tracking across five overlapping and non-overlapping cameras.



## Purchasing

CAST receives no profit from the sales of i-LIDS. There is a charge which covers the cost of the hardware, duplication and distribution of reproducing the datasets. Current prices, an application form, and user licence agreement are on our website: [www.ilids.co.uk](http://www.ilids.co.uk).

### System evaluation trials

CAST conducts regular trials of VA systems on each i-LIDS scenario. Systems demonstrating a sufficient level of performance will be listed in a catalogue of approved products distributed to Critical National Infrastructure security managers. Systems will be assessed with our own private evaluation datasets using a defined performance metric.

Systems being evaluated for an event detection scenario may be evaluated for one of two roles:

- Operational Alert - where the system provides live monitoring of a situation.
- Event Recording - where system acts as a trigger for automated recording of suspicious events to be reviewed later.

Details of how to apply for evaluation are on our website [www.ilids.co.uk](http://www.ilids.co.uk).



## For more information

The i-LIDS team can be contacted at:

i-LIDS team

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For more information on how to apply for datasets and the cost, the evaluation process and forthcoming trials deadlines visit our website

**[www.ilids.co.uk](http://www.ilids.co.uk)**