



CAM
SMARTZ™

Real-time detection, tracking and classification
of people and other objects using your existing CCTV infrastructure.

Overview

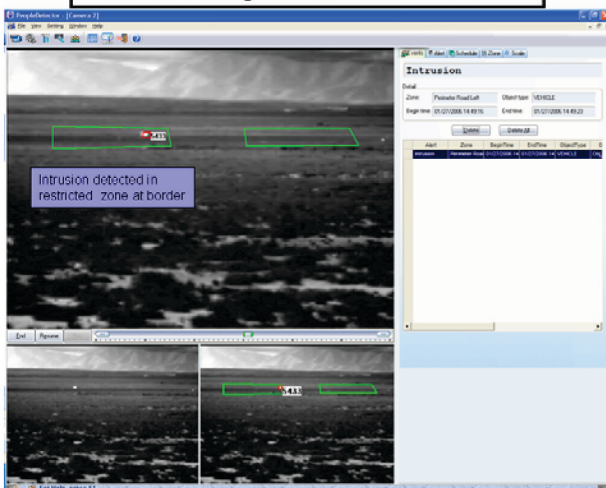
The *iLink Professionals CamSmartz* System performs real-time detection, tracking, and classification of objects from the video feed of any CCTV surveillance camera. *CamSmartz* allows users to define rules that trigger immediate alerts and notifications via security monitor, cell phone, email, or pager based on security violation events such as:

- Intruder entry into a defined zone,
- An object left behind by a human (abandoned object),
- An object that is no longer present (missing object),
- Movement through a defined zone in a direction that is not allowed (illegal flow).

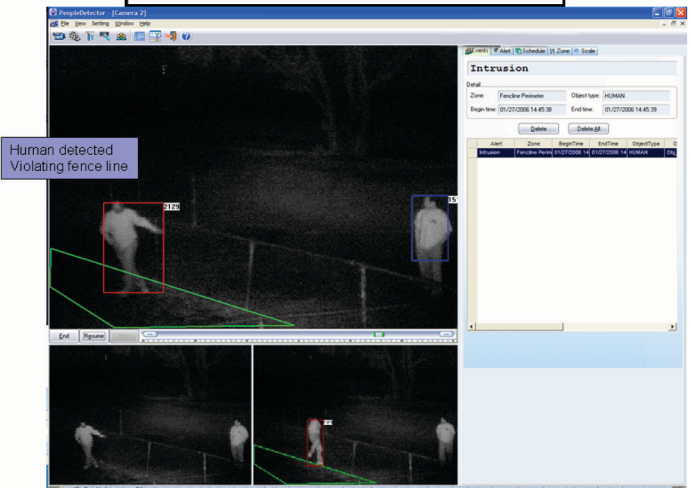
User defined *CamSmartz* rules can be created so that alerts only trigger when a specific object type violates a rule. For example, a rule can be defined that only generates an alert when a human enters an intrusion zone. Additionally, *CamSmartz* rules may be scheduled to be active only during selected hours, for example, rules related to human intruders can be set up to be active only at night. *CamSmartz* automatically collects still images or can be configured to automatically record video clips of any rule violation. *CamSmartz* has an API which allows you to link to your existing site wide security system.

Detection Scenarios - Object Tracking

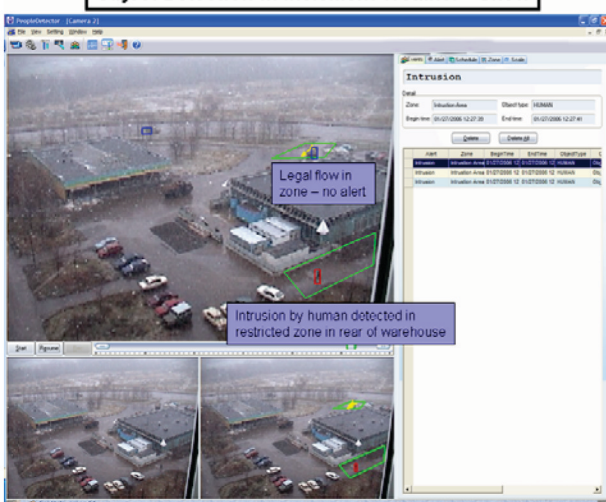
Border Monitoring – Thermal Camera at 1.5 mile



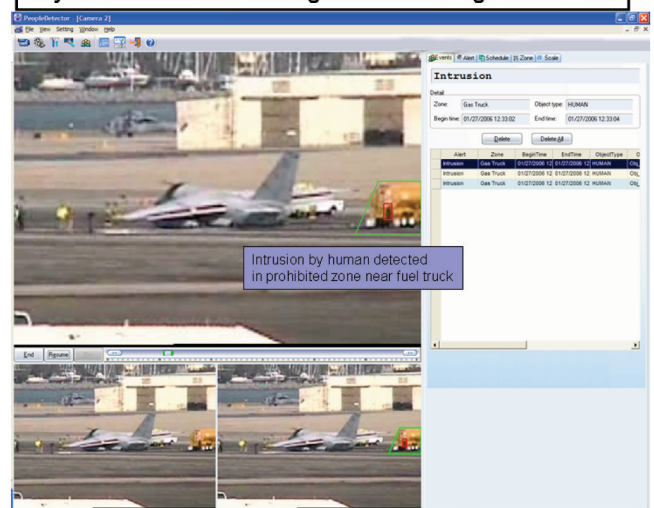
Fence Monitoring – IR Camera at 100 feet



Object Detection In Inclement Weather - Snow

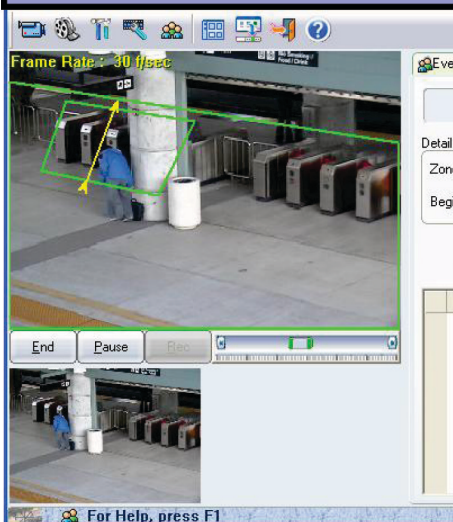


Object Detection with Moving Camera and High Zoom – 20x



Detection Scenarios - Abandoned objects

Suspicious object abandoned by human



Frame Rate: 30 f/sec

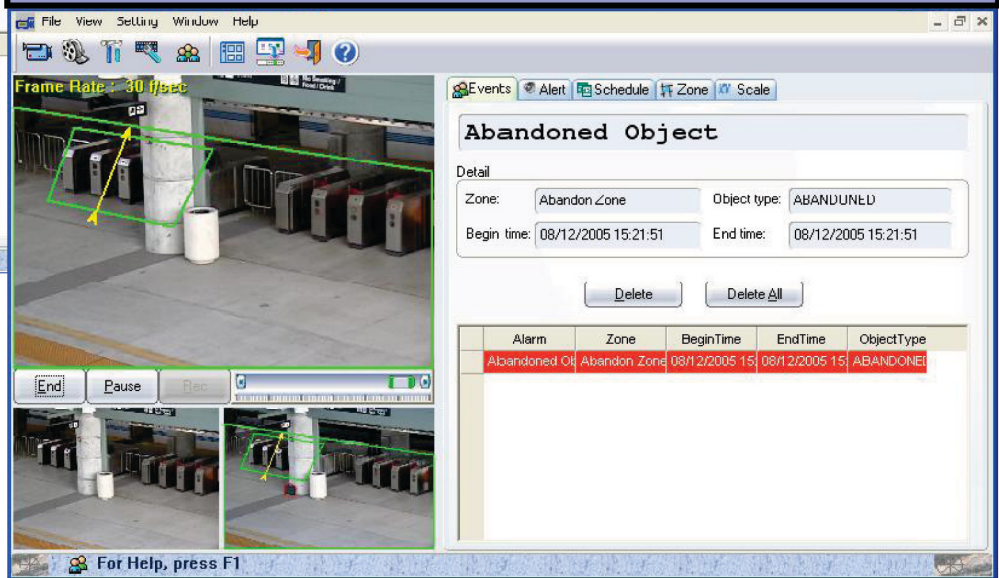
End Pause Rec

For Help, press F1

Events Alert Schedule Zone Scale

Detail Zone Begin

If the object remains longer than a user defined time delay, an alert is generated. The abandoned object sensitivity may be defined based on size and shape so nuisance alerts are not generated.



File View Settings Window Help

Frame Rate: 30 f/sec

End Pause Rec

For Help, press F1

Abandoned Object

Detail

Zone: Abandon_Zone Object type: ABANDUNED

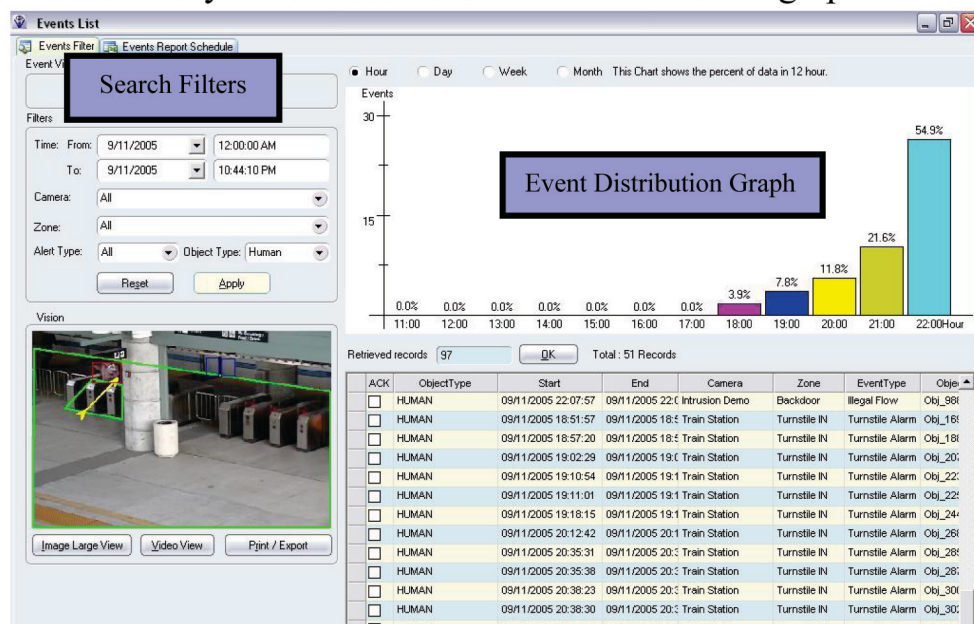
Begin time: 08/12/2005 15:21:51 End time: 08/12/2005 15:21:51

Delete Delete All

Alarm	Zone	BeginTime	EndTime	ObjectType
Abandoned Ob	Abandon_Zone	08/12/2005 15	08/12/2005 15	ABANDUNED

Event Viewer

Summary view of events and time distribution graph



This display shows the Summary Event Viewer. The displayed event list may be filtered based on time period, camera, zone, event type, and object type. A summary graph illustrating the event distribution by time is also provided. This summary report may be scheduled for automatic delivery to selected email accounts. A web based version of the Event Viewer is also available.

Benefits

The automated monitoring provided by the *CamSmartz* application ensures that no critical events are overlooked due to human error or lack of attention. Furthermore, *CamSmartz* enables proactive interdiction of events in progress so that human effort may be focused on analysis and correction, rather than monitoring of relatively uneventful video streams.

The *CamSmartz* object detection capability offers numerous advantages over simple motion detection such as: no false alerts due to background motion and lighting changes, ability to define alerts by object type, illegal flow and abandoned object rule definition, and access to historical data queries and filtering of data based on object type.

CamSmartz also provides automatic, scheduled distribution of historical summary reports, this enables rule violation trends may be easily reviewed and analyzed, allowing procedures and staffing to be adjusted appropriately based on actual data.

System Requirements

CamSmartz runs on a standard MicroSoft Windows® PC platform and supports input from a wide variety of video capture cards. Video input from as many as 4 cameras can be supported by a single *CamSmartz* PC. If desired, *CamSmartz* PCs may be accessed from anywhere, through a web based interface. For large scale applications containing tens or hundreds of cameras, multiple *CamSmartz* PCs may be linked together .

Software & CPU	Video Input
<ul style="list-style-type: none">• 4 Channel Systems (Camera Server):<ul style="list-style-type: none">• CPU 3.0GHz or Higher• 1 Channel Systems (Laptop):<ul style="list-style-type: none">• CPU 1.6 GHz or Higher• DirectX 9.0 or Higher• Windows XP SP2 or Higher	<ul style="list-style-type: none">• Max Video Feeds—4 Channels• Resolution—QVGA, VGA• DirectX compatible video capture device.
Memory and Storage	
<ul style="list-style-type: none">• Minimum RAM - 1 GB (Recommended RAM - 2GB)• Hard Drive- EIDE 7200 RPM, 2 MB Cache (SATA 7200, 16 MB Cache)<ul style="list-style-type: none">• Min HD - 50 MB (Software install only)• Archive Database—Contact Sales for a disk sizing quote based on your cameras and storage archive requirements.	

CamSmartz Applications

Infrastructure security

- Airports
- Bridges
- Railroad Operations
- Ports
- Power Plants
- Border Monitoring
- Stadiums

Property Security

- Casinos
- Shopping Malls
- Commercial Office Buildings
- Banks
- Warehouses
- Private Residences

