



Kinesense

www.kinesense-vca.com



SPEED UP CCTV INVESTIGATIONS

Kinesense
www.kinesense-vca.com

Kinesense Limited | e info@kinesense-vca.com | t IRL +353 (0) 16624546 | t UK +44 (0) 207 0961 550



About Kinesense

Kinesense has been developing and supplying market leading investigation software and video analytics solutions to police, government and security organisations worldwide since 2009

Customers and partners across Europe, Middle East, Africa, Asia, SE Asia and Australia.





Kinesense LE – who uses it?

Police / Law enforcement

- Major crime/major investigation teams
- Serious Organised Crime & Regional Organised Crime
- Technical Surveillance Units
- Video Evidence & CCTV Units
- Digital Forensic Units, Digital Intelligence Units
- Volume Crime

CCTV control rooms

- Vandalism, street crime, anti-social behaviour, fly-tipping, burglary, Subject Access Requests SARs

Government agencies

- Fraud, cyber crime, tax/duty avoidance, forensic labs, border patrol, wildlife poaching

Military

- Boat patrols, drones, forensic labs

Private security companies

- Theft, vandalism, insurance claims, benefits claims

Transport companies

- Redaction, theft, violence, vandalism, insurance claims, road behaviour (infrastructure planning)

Retailers

- Shoplifting, insurance claims, physical assaults and aggressive behaviour towards staff



Video Evidence – The Challenges



RETRIEVAL

- Need to obtain evidence quickly
- Every camera is different
- Proprietary systems (4000+ formats)



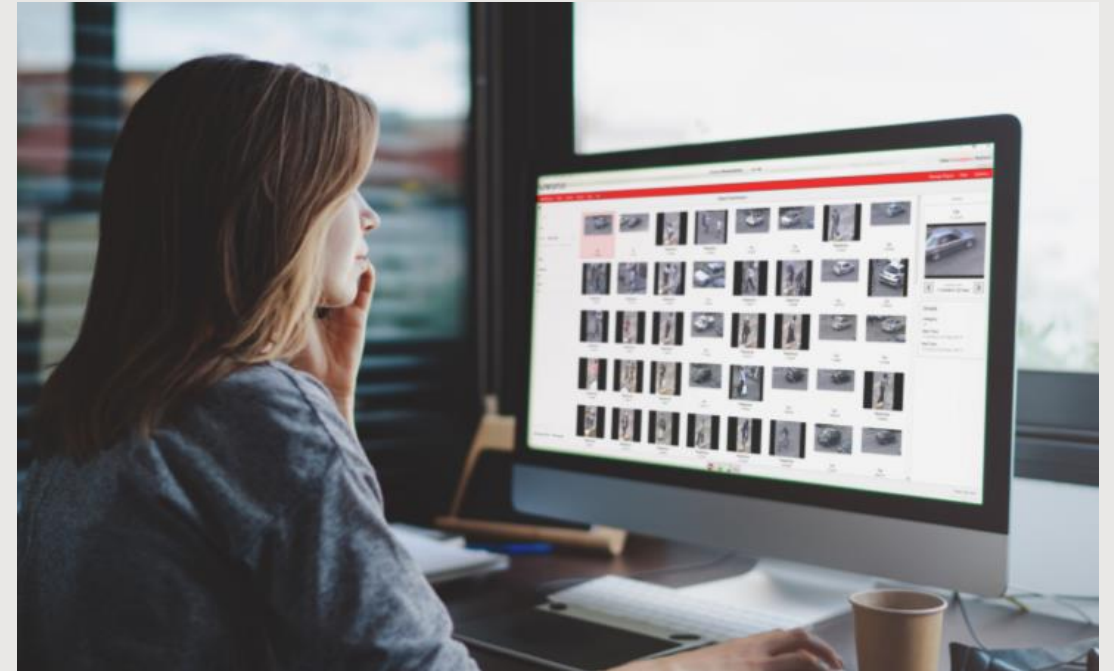
REVIEW / SEARCH

- Viewable format
- Time consuming manual search
- Operator fatigue = missed events



REPORTS

- Subject Access Requests (SARs)
- Court reports
- Disclosure reports

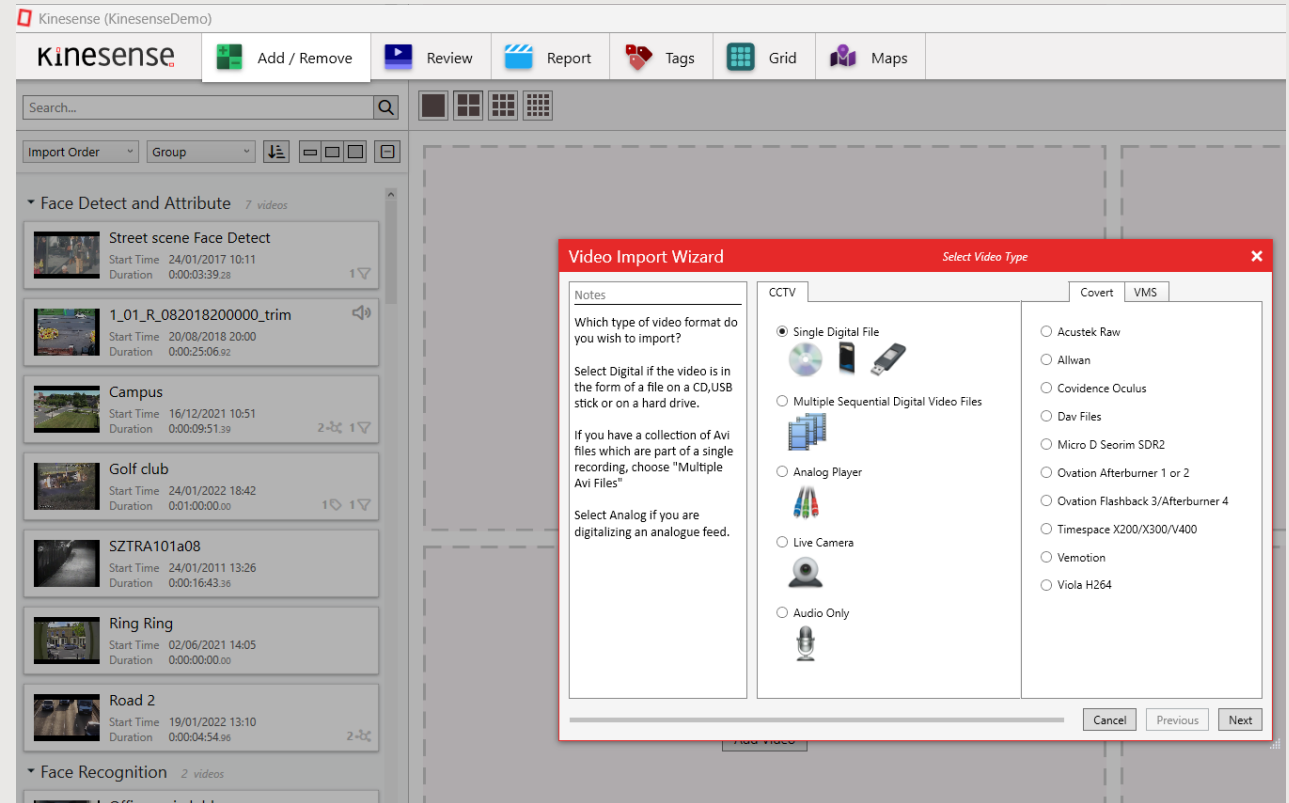




The key features and benefits of Kinesense LE

RETRIEVAL – trying to play different video formats can be a major problem

- There are 4,000+ different formats and Kinesense LE has 900 built-in virtualised players so it imports most CCTV automatically to create playable ‘working copies’
- Transcode options for conversion of even more difficult formats
- Integrated with all of the major covert cameras, i.e. Covidence, Ovation, Timespace, Acustek, etc
- Police, councils and transport hubs often use VMS, i.e. Milestone & Genetec. Kinesense LE imports from them too!





The key features and benefits of Kinesense LE

REVIEW – Investigators spend ‘days and weeks’ watching video to find key events

Automatically searches up to 20X faster than manual viewing by applying unique algorithms at import and detecting motion using customisable filters:

- Search by motion
 - direction, colour, object
- Classify objects
 - (person, bicycle, motor bike, car, van, truck, bus)
- Tag key events
- Export key clips
- Faster intel means faster charging decisions

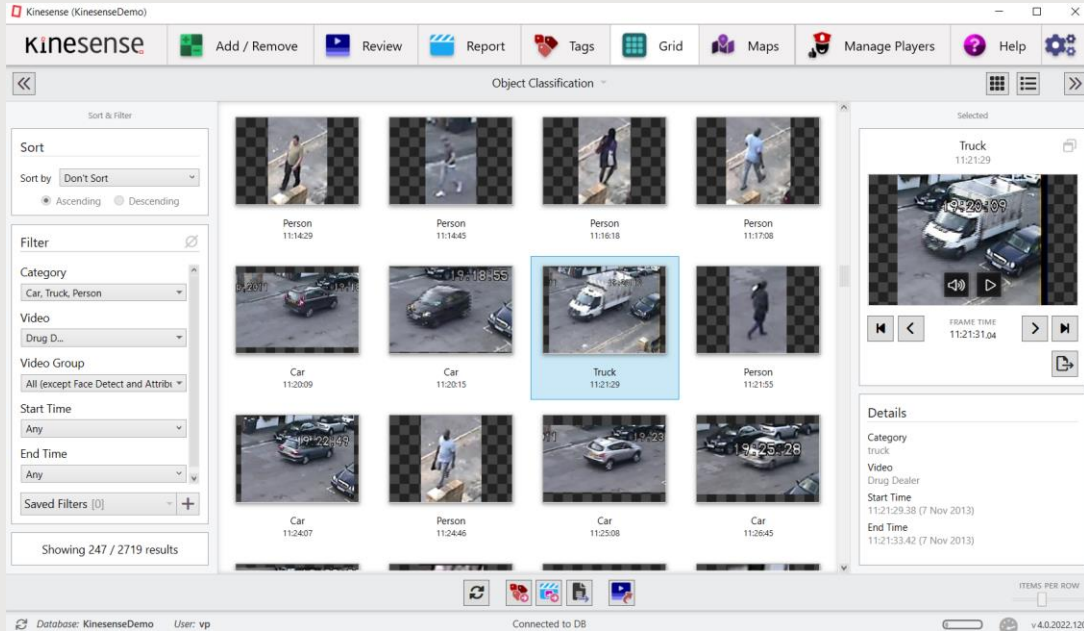
The screenshot displays the Kinesense software interface. At the top, there's a menu bar with options like 'Add / Remove', 'Review', 'Report', 'Tags', 'Grid', 'Maps', 'Manage Players', and 'Help'. Below the menu, a search bar and a list of 'Defined Area' videos are visible. The 'Defined Area' list includes 'CH02_2020081217_160000_01', 'Campus 2', and 'Drug Dealer'. The 'Drug Dealer' video is selected, showing its start time (07/11/2013 10:21) and duration (1:58:46.533). A 'Filters' section is open, showing a 'Driveway STANDARD' filter selected. The main video player shows a street scene with a black van and a person. Below the video player, there are two waveform graphs. The top graph is labeled 'RESULTS WITH FILTER TURNED OFF' and shows a dense, noisy waveform. The bottom graph is labeled 'RESULTS WITH FILTER TURNED ON' and shows a much sparser waveform with only a few distinct peaks. A green arrow points from the 'Driveway STANDARD' filter to the waveform graphs.



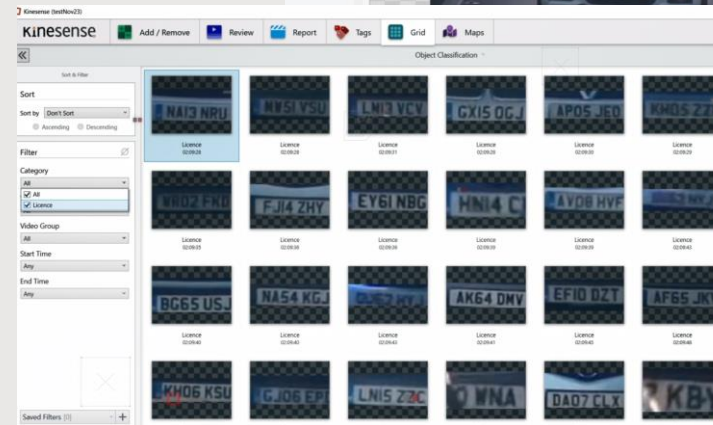
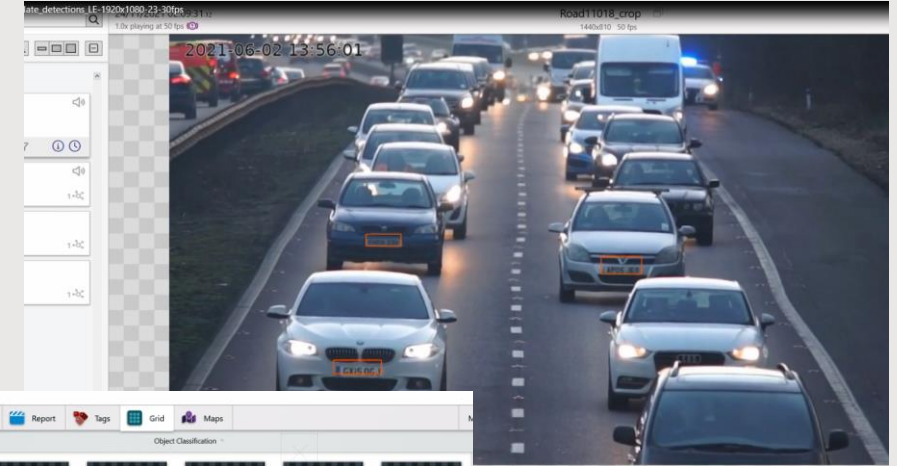
The key features and benefits of Kinesense LE

REVIEW – Fast triage in Grid

View all moving objects and licence plates detected. Jump straight to where they appear in the videos.



Object Classification - Filter by person, bicycle, motorbike, car, van, truck or bus



Licence Plate Detection - All visible licence plates detected (full or partial) using the new YOLO algorithm



The key features and benefits of Kinesense LE

REPORTS – manually creating reports is very time consuming

- Kinesense LE automatically generates reports in Word, saving hours or days compared to cutting & pasting dates, times, notes and images in to Excel
- Automatically export key images and notes into PowerPoint reports
- Creates AVI/MP4/DVD video reports in the form of storyboards with titles
- Detailed Maps showing camera location, direction of view, key videos, events/tags. Add routes, icons, measurements, GPS cell site data, etc as layers
- Disclosure Reports for audit/ISO17025

Details for IMG_4479.JPG

Name: IMG_4479.JPG
Video Source: IMG_4479.JPG
Start Time: 03/09/2021 11:37:31
Title Slide Duration: 5 sec
Notes: Created at 03/09/2021 11:37:31
From VideoSource: IMG_4479.JPG ID: 32767
Starting at Time: 03/09/2021 11:37:31
Report Clip Name: IMG_4479.JPG ID: 9c9bcbd6-e65a-4e7a-8
Clarifications are enabled
Applied Clarifications
1. Cropping: X-Top = 34.7%, Y-Top = 43.4%, X-Width = 2. Deblur: Mode = FocusBlur, Radius = 6.70, Strength = 0.2013
Annotations are enabled. There are 0 annotations
Not Deinterlaced
Comments: (No Notes)

Date	Time	Video Title	Comments	Still Image
13/11/21	11:32:56	Byways	John Smith Gets Some wearing white shirt	
17/01/24	10:13:12	Street scene Face Detect	Street scene @ Face Detect @ 10:13:12	
13/11/21	10:32:33	Walton Road	Suspect X Enters Scene, wearing sunglasses, blue shirt, black bag	

Kinesense Add / Remove Review Report Tags Grid Maps Manage Players Help

Video Report Image Report Annotate Report Clarification Authentication Existing Reports

Clip Name: Clip 2 from Drug Dealer
From: 07/11/2013 11:42:24
To: 07/11/2013 11:42:35

Map Display Options: OpenStreetMap, Display Grid, Labels, Scale, Navigation, Camera

Map Layers: Layer 1: Road, Layer 2: Camera

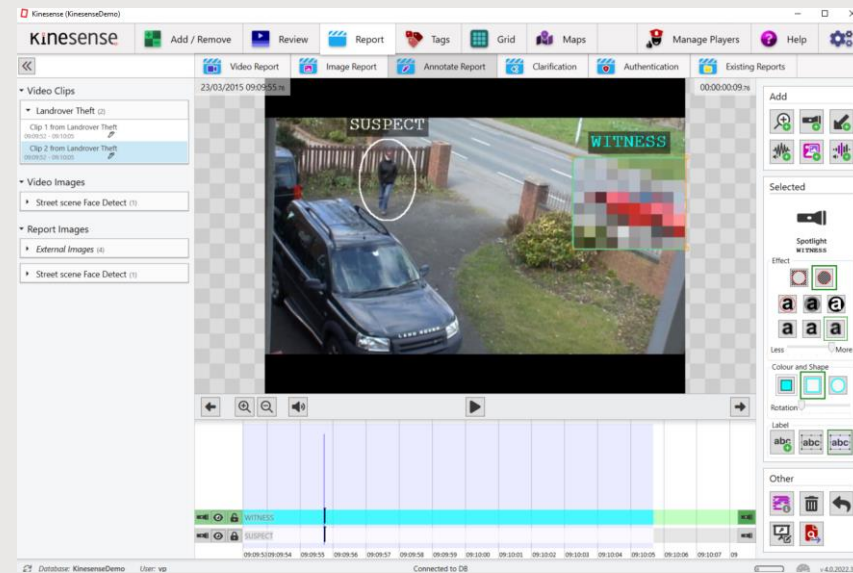
Cameras: Camera 676, Camera 990



The key features and benefits of Kinesense LE

ANNOTATION & REDACTION

- Highlight people or objects
- Redact faces to protect identities (SARs)
- Redact the scene for covert surveillance but leave people or objects clear
- Zoom in for a closer look
- Add labels and notes for identification
- Add arrows
- Follow their movement by choosing key frames and simply dragging the highlights & arrows with them
- Add timestamps from camera metadata
- Insert picture in picture (i.e. from another camera)
- Add beeps or silent gaps to redact audio



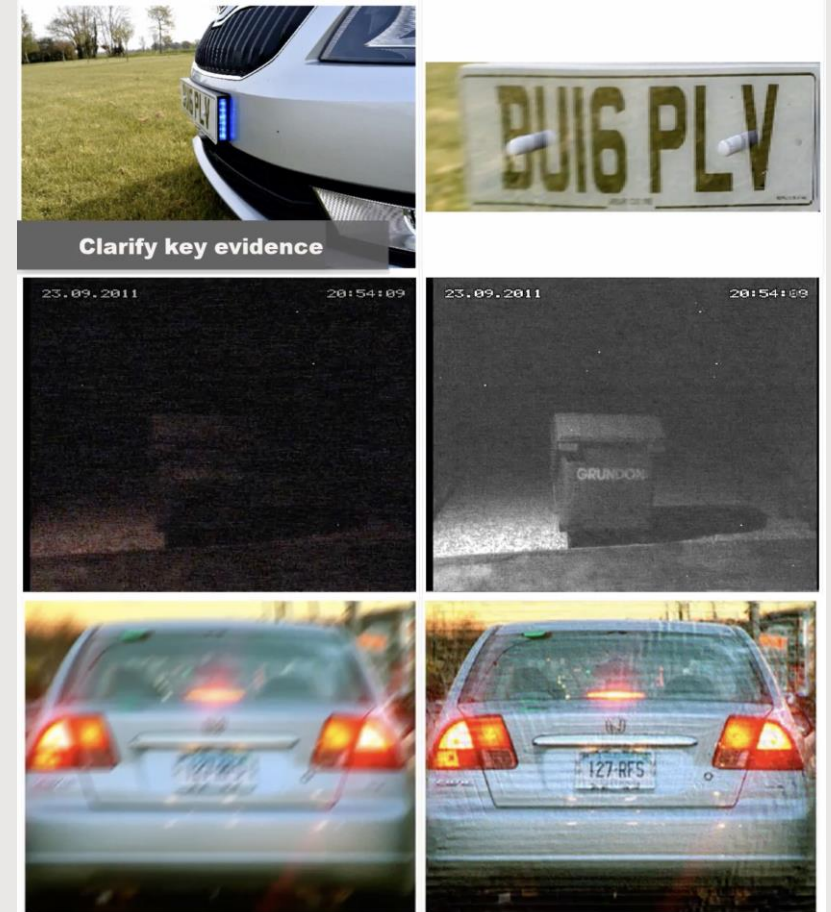
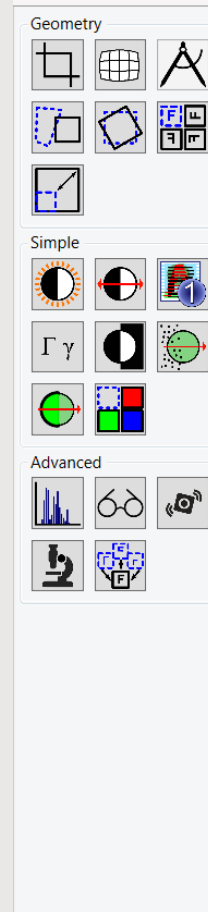


The key features and benefits of Kinesense LE

Kinesense LE has a range of built-in tools to help operators quickly clarify key evidence:

- Deblurring
- Contrast
- Fisheye
- Skewing
- Stabilisation
- Error Level Analysis
- etc...

- All actions taken to clarify evidence are recorded and can be exported as a Disclosure Report for ISO 17025 compliance





The key features and benefits of Kinesense LE

ERROR LEVEL ANALYSIS

Compare different versions of photos, check compression levels, Exif data, hex values and use other built-in tools to look for indications that images may have been altered

The screenshot displays the Kinesense software interface with several key features highlighted:

- Error Level Analysis:** A window showing options for 'Error Level Analysis' with a 'Compression Level 1' slider set to 100 and a 'Scale Factor' of 1. It displays two side-by-side image comparisons.
- Compare Images:** A window titled 'Compare Images' showing a source image and a comparison image. It includes a 'Summary' section with the following data:
 - Byte Differences Found: 93648
 - More than 1000 difference found
 - Images are the same size
 - Image Differences Found: 149248 Pixels changed
- Exif Data:** A window showing detailed Exif data for a source image of a bottle. The data includes:

Title	Value
Creator Tool	14.8
History Software Agent	Adobe Photoshop 22.3 (Macintosh); Adobe Photoshop 22.3 (Macintosh)
Modify Date	2017:10:07 23:22:01 +01:00
X Resolution	72
White Balance	Auto
Exposure Mode	Auto
Scene Type	Directly photographed
Sensing Method	One-chip color area
Focal Length	4.3 mm
Metering Mode	Multi-segment
Exposure Compensation	0
Brightness Value	11.55203678193
Aperture Value	1.8
Shutter Speed Value	1/100
Orientation	Horizontal (normal)
Exposure Program	Program AE
Digital Zoom Ratio	1.1805518110238
Exif Image Height	1024
Metadata Date	2017:10:07 23:22:01 +01:00
Exif Image Width	4032
Color Space	Uncompressed
Exif Version	0222
Camera Model Name	iPhone 11
Make	Apple
Resolution Unit	Inches
X Resolution	72
Y Resolution	1.8
Exposure Time	1/100
Y Number	1.8
Scene Capture Type	Standard
Instance ID	img:1614952019-2ba7-4c19-8dad-b0f4f6b826a2
Shutter Speed	1/100
Megapixels	16.1



The key features and benefits of Kinesense LE

(OPTIONAL MODULES)

FACE RECOGNITION & FACE DETECTION / ATTRIBUTES

- Identify known faces from a database of stored images
- Search videos to find if suspects appear in them
- Add new faces to increase existing databases
- Filter by age, gender and other features

The screenshot displays the Kinesense software interface. The main window shows a video titled "The Team" with a timestamp of 01/01/2014 19:20:51.97. A person is visible in the video frame, and a "Possible Face Matches" dialog box is open, showing a match for "Mark Sugrue" with a confidence of 0.81. The dialog box includes fields for Name, Gender (Male), Ethnicity (Caucasian), Nationality (Irish), and Birth Date (01/01/1980). The interface also features a sidebar with a search bar, a list of video clips, and a timeline at the bottom showing the video's duration and playback progress.



Building the business case for a Kinesense Viewing Workstation

TIME SAVED IS £€\$ SAVED!

- On average, saving just 1 hour review per day pays for multiple licences for a year, with an annual ROI of 10-20X.
- Kinesense LE has been proven to save over 500 hours review on a single murder investigation
 - = 3 investigators x 40 hours x 4 weeks
- One large investigation can pay for licences for 10 individual users or for 2 machine licences (unlimited users) for a whole year!

Kinesense Advantage [X]

Compute for all dates All Users

Export from 20/07/2020 15 Refresh Results

Usage Data From:
Counting 1 Machines,

Video Imported : 643 Hours Imported
Video Watched : 70 Hours Viewed
Reports : 3 Text Reports, 18 Videos (261 Clips)
Time Saved : 573 Hours Saved
Time Saved (%): 89% Time Saved
Cost Estimate at per Hour. Savings: 11,406

Browse... Export Logs Clear Data Close



Kinesense solutions for police and law enforcement agencies

Kinesense LE

Industry leading video analytics solution helping law enforcement & security organisations speed up CCTV & covert investigations

Related products:

- Kinesense Redact
- Kinesense Report
- Kinesense PlayerManager

Kinesense DEAM

Secure cloud based solution enabling users to upload, access and securely share evidence with colleagues and trusted external partners and organisations for collaboration

Kinesense
www.kinesense-vca.com

info@kinesense-vca.com
+44 (0) 207 096 1550 (UK)

VIDEO ANALYTICS

- Creates actionable intelligence, fast
- Saves up to 95% of time
- Enables secure chain of evidence
- Covert Surveillance
- Major Investigations
- Volume Crime

1# SOLUTION WORLDWIDE!

DIGITAL EVIDENCE & ASSET MANAGEMENT

- Securely store digital evidence on the cloud
- Make assets available from anywhere 24 / 7
- Share with colleagues & trusted partners
- Videos, documents, photos, images, etc
- Managed access for total security
- All actions logged for chain of evidence
- Eliminates physical media costs (USB/DVD)
- Integrates with other IT solutions via an API

Contact: **Vernon Pratt – Sales Manager**

Tel: **07973 470786**

Email: **vernon.pratt@kinesensevca.com**