

# Kinesense LE

## Key feature list for Kinesense LE V3

- Complete video investigation platform from capture to court
- Combines video analytics capability with video reporting functions
- Complete audit trail combined with frame by frame hashing for security

## VIDEO RETRIEVAL

### Import Capabilities

- Import video from directly supported proprietary files
- **Supported video file types (including, but not limited to): avi, mpg, mpeg, wmv, mov, flv, mkv, mp4, vob, xba, h264, asf, mkv, sdr2, sec, raw, dav, avf, rms, csx, 264, box, blk, mxf, m4v, mts, 3gp**
- Automatic identification of video file format for standard file types
- Import from analog video sources
- Import for IP network camera and over the internet
- Connect to remote surveillance servers like Milestone, Genetec etc
- Batch import video sequences from VMSes like Milestone, Genetec
- Support advanced importation of files or remote access from Ovation systems, Timespace and other covert recorders (please request a list from your Kinesense representative)
- Import of digital video file format, rapidly decode video using a unique combination of Windows codecs
- Import via screen capture from proprietary player using ISO compliant designed capture tool
- Gather screen capture technical information on frames rate etc when screen capturing
- PlayerManager solution aims to identify correct Player to play a video file
- PlayerManger provides a broad range of players and information on those players
- Store proprietary players in a library, enabling you to access the right player for a video
- **Ensure you can play a video by using over 900 virtualized players**
- **Eliminate the installation of players by using virtualized players**

- Automatically analyse codec and encoding of a file type
- Import multiple different sources of video simultaneously
- Organize and display multiple sources of video relating to your case
- Add evidential metadata to you video like source, exhibit reference, source location etc
- Correct time anomalies by offsetting the time to the speaking clock
- Ability to add metadata information such as file/data format, capture information (e.g. location, time, camera settings), reason for video collection, case ID etc
- Customise your own metadata fields
- **Ensure the integrity of your data by using frame by frame hashing**
- Deinterlace video
- **Store video with optional H264 and MJPEG encoding**
- Capture audio upon video import
- **Import audio files**

#### **Candidate Database Import Capabilities *(Facial Recongition Module, Priced separately)***

- Enroll New person- add a person to the database
- Batch Enroll Faces enabling the importation of a large number of faces to the recognition database. Json file upload is supported.
- Add information to the person such as name, gender, nationality, date of birth etc.
- Chose an image of the persons face from an external file or direct from the video.
- Automatically check quality of enrolment image.

## **VIDEO REVIEW**

### **Viewing/Exploration Capabilities**

- Display and view video on timeline
- Ability to split multiplexed video into different channels
- Jump from one video to another video in your case quickly and easily
- **Place up to one week of video on a single timeline**
- **Quickly review the timeline to see all motion events (using Event detection algorithm)**
- **Access all video on a timeline**
- Search your video by time
- Review key events frame by frame
- Play/Pause/Stop/Rewind video
- Speed up video playback for rapid reviewing
- Connect to jogg shuttle control device for fast review
- Pop out a video timeline to a second screen
- Rotate your video view
- Zoom in on key areas of the video to see objects clearer
- Lock timelines to view overlaps between to videos
- **Ensure collaboration during a case with simultaneous multi-user access**

### **Event Detection Algorithm/ Searching Video**

- Detect moving objects in video
- **Process and search video down to 2 frames per second**
- **Index video on a frame by frame basis**
- Process video with low light and poor quality
- **Filter video for objects/movement (allows user to select/omit data for viewing based on specified criteria) by:**
  - Search video automatically by direction i.e. movement right, left, straight etc
  - Search video automatically by object colours
  - Search video automatically by region of interest i.e. partial view of recording/zone
  - Search by car V person (new for 2019)
- **Create multiple search filters without having to reprocess the video**
- Object tracking (following of a person/object/vehicle within a video without leaving the field of view)

#### **Doorway analysis Algorithm/ Searching Video (new for 2019)**

- This algorithm setting aims to detect movement going in and out of doorways and exclude irrelevant movement such as cars passing in front of the door.

#### **Face Detection & Attribute search *(Facial Detection Module, Priced separately)***

- Detect faces in video
- Display when face is found on the timeline with a bounding box
- Display faces found in video as image thumbnails in various configurations 2x2, 4x 4, 16X16
- Scroll through faces found
- **Filter video by faces (allows user to select/omit data for viewing based on specified criteria) by:**
  - Filter faces by age
  - Filter faces by gender
  - Filter faces by wearing glasses/no glasses
- Jump from image of face found to place of video timeline where person found
- Ability to select our all images or selected faces to a report

#### **Face Recognition / Searching Video *(Facial Recognition Module, Priced separately)***

- Display when on the timeline with a bounding box when there is a match or potential match to suspect
- Configure results displayed by threshold level
- **Filter video by:**
  - Filter faces by age

- **Filter faces by gender**
- **Filter faces by wearing glasses/no glasses**
- Jump from image of face found to place of video timeline where person found
- Ability to select our all images or selected faces to a report
- In the review tab:
  - Add Match: Manually add a new face Match, either from video, from Database or Create a new person
  - Remove matches: unlink a Recognised face
  - Enroll new person
  - Identify a face

*Additonal optional Analytic Modules avaialble 2019 including licence plate identification and behavioural analytics. Talk to your Kinesense representative for further details.*

## VIDEO REPORT

### Report

- Create video and image reports
- Export multiple video frames to pdf document
- Add text notes to images
- Export video as a sequence of frames
- Select clips from a video manually
- Select clips from a video by selecting all events
- Ability to export all frames in a video clip
- Ability to storyboard clips from multiple video sources (produces a shortened video that conveys all activity from a longer video stream)
- Compile video and images for reports
- Ability to combine videos of different frame rates and aspect ratios to the same video report
- Correctly represent all original frame rates and frame sizes
- Edit a clip frame by frame
- Add text notes to images
- Add presentation slide with fade and cross fade options
- Export to .AVI/MP4 format
- Save a report project so you can return to it at a later date
- **Quickly redact or highlight key persons or events of interest using blurring, pixilation, spotlight and arrows using key frames**
- **Bookmark or tag key person of interest and events in video**
- Annotate bookmarked or tagged objects and events, adding in free text content as well as specified terminology including level of importance
- Selection and filtering of tagged events by object, key word and notes
- **Automatically create a report of tagged objects with metadata and key image extraction into a report**
- Image & video spotlight, blur & text options
- Create interactive viewing logs of key persons of interest across video sources in your case
- Export your viewing log to Excel, MS Word or PDF
- Export your viewing log and video sources to the IBM Analyst Notebook for large scale data exploitation
- All video frames individually security tagged with both an open source and a tamper evident digital signature.
- Check the integrity of a report withinng the software
- Create custom report templates with selected images/logos
- **Automatic generation of a disclosure logs outlining key usage information such as video imported, filters created reports made etc on a named user basis**

### Clarification of video and images

- Clarify images and video using multiple layer techniques
- Crop, lens distortion, perspective crop, roate image, roate or mirror, scale,

- Brightness & Contrast, contrast crop, deinterlace, gamma correction, Invert, Noise removal, sharpening, split channel, Histogram Stretch, De blur, stabilize, super resolution, temporal median
- Check data integrity with tamper evident mechanism

**Collision Investigation Toolkit ( This option is available to sunscription cutomers as a requested extra option, please ask your Kinesense representtve)**

- Side by side viewing of 2 video streams
- Automatic speed calculation algorithm
- Export video in side by side view

## VIDEO MANAGEMENT

### Video management

- **Manage user access using restricted logins**
- Create named user logins and passwords
- Restrict access to archives
- Evidential management and audit trail creation
- **Ability to customise settings in admin configuration e.g. user access, compression, reports templates etc**
- **Ability restrict feature visibility for certain licences**
- Network deployment for greater collaboration
- Administration management for logos, user access, reports etc.
- Management analytics (understanding CCTV resources)
- Change language

**Disclaimer** Face recognition technology, like any biometric application, cannot provide 100% recognition accuracy.

### Face detection specifications

- The system requires that the face is at least 10% of the frame.
- Must have Sharp images
- Complete frontal face visible in the image
- Ideally Inter-pupil spacing ideally 60-100 pixels, possible to go down to 23 pixels
- +/- 15 degrees' deviation from frontal image

**NOTE:** Kinesense LE does not include any third-party algorithm. These are subject to an additional charge  
The feature list here within, is not exhaustive. Other features may exist.