Cognitec

FaceVACS-DBScan LE

Face recognition technology

for image and video investigations, and database matching

- investigate faces in video footage, still images and sketches
- find known or unknown persons in multiple videos to quickly narrow down suspect investigations

- enroll facial images directly from a video frame for further investigations
- quickly compare faces to local galleries or to central multi-million image databases

- instantly view match candidate lists
- enhance probe image quality and compare images side by side
- install as a ready-to-use application or integrate into your infrastructures

ANNOTATE

ENHANCE

IDENTIFY

Probe 23
ID nr. 84
Unkown
First save
Officer: 7
Last chan
Officer: 0
Image so
Case ID:

Thursday, April 1, 08:45 am   Camera 17, Hall 9 East

Candidates

| 1 | 0.83 | 2 | 0.64 | 3 | 0.62 | 4 | 0.28 | 5 | 0.26 | 6 | 0.35 | 7 | 0.23 |

Use cases

Video investigation

- view all appearances of a person in multiple videos
- search appearances/videos to find:
  - unknown persons
  - persons appearing together
  - frequently seen persons or groups
  - known persons

Image search

- process faces in still images or from video frames recorded by mobile devices, surveillance cameras, bodycams, etc.
- compare faces with images of known persons

Image search at the crime scene

- take photos with mobile devices
- search central databases
- view match candidates and related case information
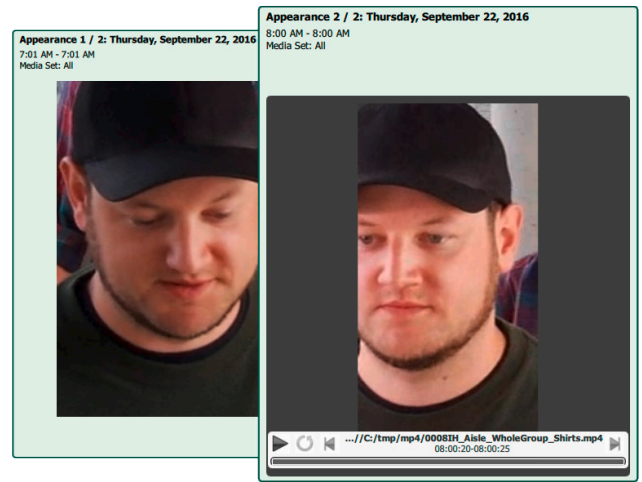
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Appearances and identities

During the import of video material, FaceVACS-DBScan LE extracts and stores a video sequence of the cropped face (face stream) for each appearance. The software compares all face streams against each other to determine and cluster identities, and then displays the face streams of the same person altogether.

Search filters

Agents can use various criteria and filters to quickly search through media sets and find:

- a person enrolled in local image galleries
- all persons in a specified age range
- all male or all female persons
- all persons with glasses
- all persons seen during a specific time span
- all persons seen in one location

Investigation

FaceVACS-DBScan LE includes Cognitec's market-leading matching engine and provides investigators with a powerful toolset to match faces in crime scene photos and surveillance video images against local or central facial image databases.
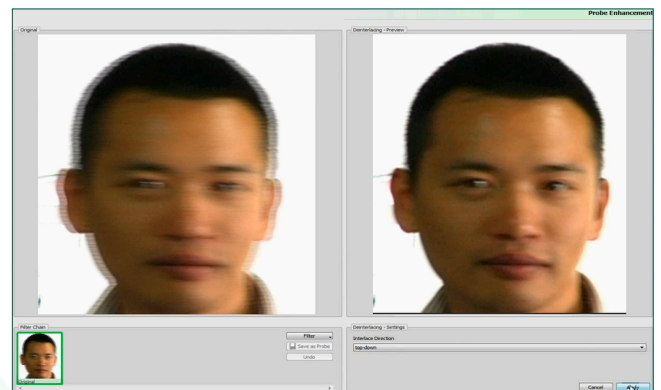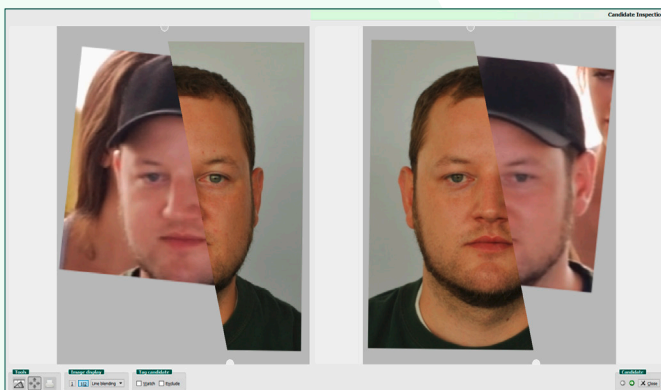
Detail inspection
- inspect image pairs side by side
- superpose probe and candidate image and use line blending tool
- measure angles and distances of facial landmarks, e.g., eyes, moles, tattoos, scars

Probe enhancement filters
- de-interlace filter for images from interlaced video
- median filter to remove noise
- histogram to correct contrast
- face cropping filter

Investigation management
- create investigation case and add probe images
- generate and maintain candidate lists, along with demographic data
- manage watch and exclude lists
- document investigation results

Cognitec develops market-leading face recognition technologies and applications for enterprise and government customers around the world. Various independent evaluation tests have proven the premier performance of the FaceVACS® software. Cognitec's portfolio includes products for facial image database search, recorded video investigation, real-time video screening and people analytics, border control, ICAO compliant photo capturing and facial image quality assessment. Corporate headquarters are located in Dresden, Germany; other offices in Rockland, MA, USA and Sydney, Australia.

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