



FaceVACS-DBScan ID

# Face recognition technology

for matching images in large databases

- compare facial images to multi-million image databases
- detect ID fraud and clerical errors
- control score thresholds
- perform database de-duplication (1:n or n:n) to compare, clean and maintain ID databases with facial images
- manage demographics and other case-related data
- protect biometric data with cryptographic signing and template encryption
- run as a ready-to-use application or integrate into your applications and infrastructure

Probe	Reference	
		<p><b>Score:</b> 0.9341</p> <p>Case ID: MOXA567 Name: Anna Smith Birth: 1985-02-05 Gender: female Audit Date: 2018-03-25 Audit Time: 1:35 PM Auditor: KH</p>
		

## Applications

### ID fraud prevention and detection of clerical errors

- ePassport
- eVisa
- driver's license
- health card
- corporate ID card
- voter registration

### Photo search, indexing and sorting by face

- digital photo galleries on PCs or in cloud solutions
- photo kiosks for selection/purchase of personal photos (e.g., on cruise ships, at hotels, clubs, events, etc.)



# Matching technology

Cognitec's FaceVACS® technology delivers high-speed, reliable performance for matching tasks in large databases. The matching algorithms are set to work with

- typical gesture changes
- partial face occlusions
- surgical face masks
- beard and hairstyle changes
- glasses
- lighting changes
- image noise
- blurred images
- pose deviation from frontal image
- low contrast/dynamic range in the face area
- sketches and composite images

## Examiner

FaceVACS-DBScan ID includes a powerful toolset to match faces in ID photos against local or central facial image databases, instantly view a match candidate list, and inspect the match results.

### 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

### Investigation management

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

Annotate...  
Enhance...  
Identify

set eye positions to achieve better match results

use filters to enhance probe image quality

New Candidates

1	2	3	4	5	6	7
0.934	0.848	0.334	0.285	0.262	0.248	0.236

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.



[www.cognitec.com](http://www.cognitec.com) · [info@cognitec.com](mailto:info@cognitec.com)