






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	
		<b>Score:</b> 0.9341 Case ID: MOXA567 Name: Anna Smith Birth: 1985-02-05 Gender: female Audit Date: 2018-03-25 Audit Time: 1:35 PM Auditor: KH6578
		

## 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
- virus protection 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

Case ID: MOXA567  
Name: Anna Smith  
Birth: 1985-02-05  
Gender: female  
Application: Visa  
First saved: 09-15-2004  
Last changed: 11-19-2011  
Audit Date: 2018-03-25  
Audit Time: 1:42 PM  
Auditor: 6578

Candidates

Candidate	Score
1	0.98
2	0.96
3	0.62
4	0.28
5	0.26
6	0.35
7	0.23

Cognitec is the only company worldwide that has worked exclusively on face recognition technology since its inception in 2002. 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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