

UNITED[®]

SMART TRACKER

UNITED.SMARTTRACKER

Biometrical Face Recognition

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Today, high tech business success is determined by three main factors: quality, innovation and speed of decision-making. The customer is the one who sets the requirements.

Therefore, our task is to continuously explore current market needs, anticipate future trends and customer expectations and plan our activities accordingly. It is crucial for us to have reliable data about the level of customer satisfaction, to increase the speed of product development and market launch, as well as the speed of reaction to market changes and needs.

To provide a high quality product, we constantly carry out modernization of the existing solutions. One of our main principles is the adaption of any product to specific operating conditions. Predesign inspection of facilities, training services and technical support. All these factors help us improve our work and create the most comfortable conditions for our clients.

“We strongly believe in our technologies, as they provide a natural way of interaction between humans and computers. Our products solve the most urgent tasks of our customers, providing new information and making their lives easier and safer”.

Jonathan Brans, Founder
of United

CUSTOMER ORIENTATION

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MULTIMODAL BIOMETRIC IDENTIFICATION SOLUTIONS



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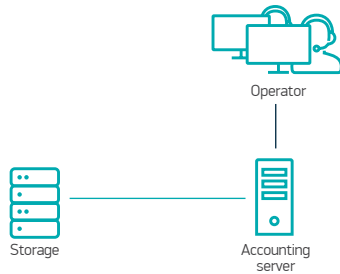
GridID

Biometric identification and analysis platform

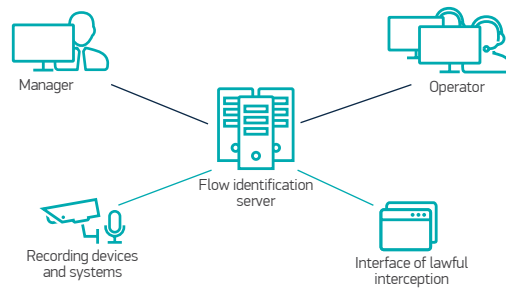
DESCRIPTION

GridID is a unified biometric identification and analysis platform designed for law enforcement agencies and forensic laboratories dealing with organized crime, fraud, corruption, terrorism and other types of security threats.

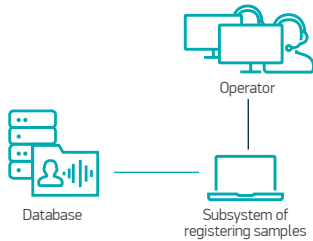
GridID.Scan – Enrollment



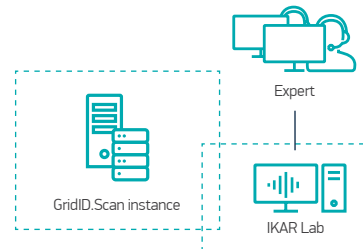
GridID.ScanRT - Operational activities



GridID.Sampler - Biometric samples gathering



GridID.Lab – Forensic investigation



Service platform of biometric system (GridID.Platform)

FEATURES

- Streamlined process of biometric samples gathering and enrollment
- Investigative functionality:
 - automatic search and identification by voice, face and other biometric patterns
 - real-time multi-thread analysis and identification of voices in calls
 - voice data processing: keyword search in speech recordings, speech recognition (Speech-to-Text), speaker's language and gender detection
- Forensic analysis:
 - biometric data verification and reporting for legal proceedings
 - noise cancellation and speech enhancement
 - authenticity analysis of voice and video recordings
- Report generation and monitoring performance of users and systems

ADVANTAGES

- Full cycle of biometric analysis: from sample collection to a court report generation
- Automatic language and gender identification, keyword spotting and speech-to-text conversion
- Automatic speech detection and segmentation
- Scalable centralized or distributed architecture
- Ready for integration with external systems or additional biometric parameters
- Automatic pre-processing and indexing of biometric patterns and quality control
- Flexible modular structure to meet particular need of every department

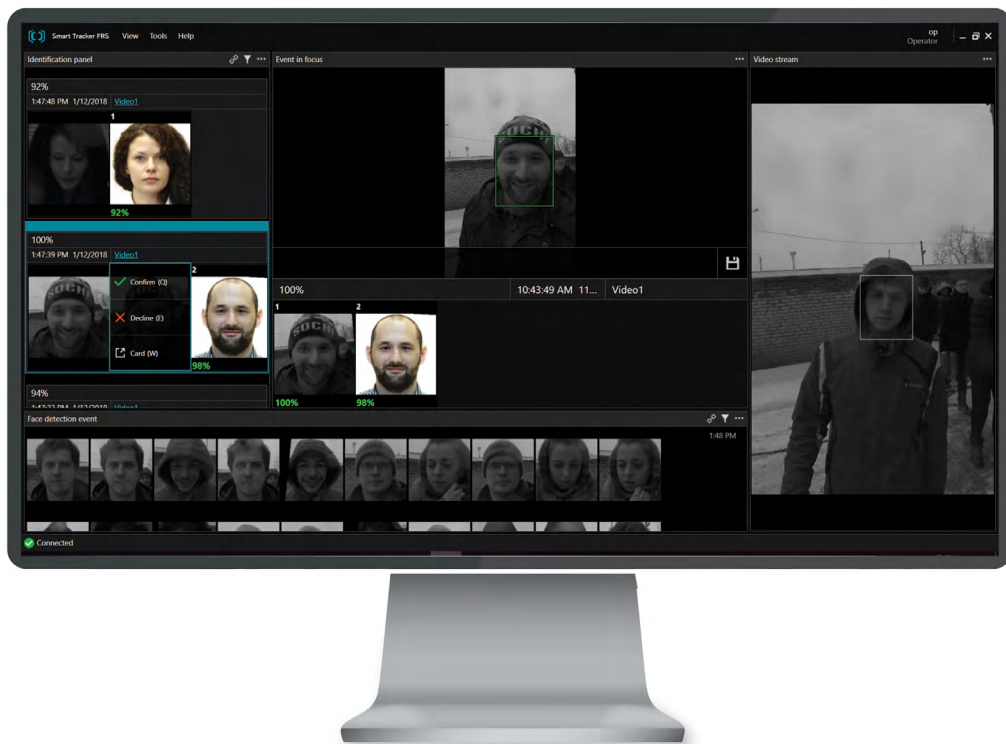


United.SmartTracker

Video Identification System

DESCRIPTION

United.SmartTracker is a hardware and software solution for real-time face recognition, biometric search and facial DB management. United.SmartTracker has an extremely wide application area: transportation (train stations, marine and river terminals, subway, airports), recreational and strategic facilities, city infrastructure.



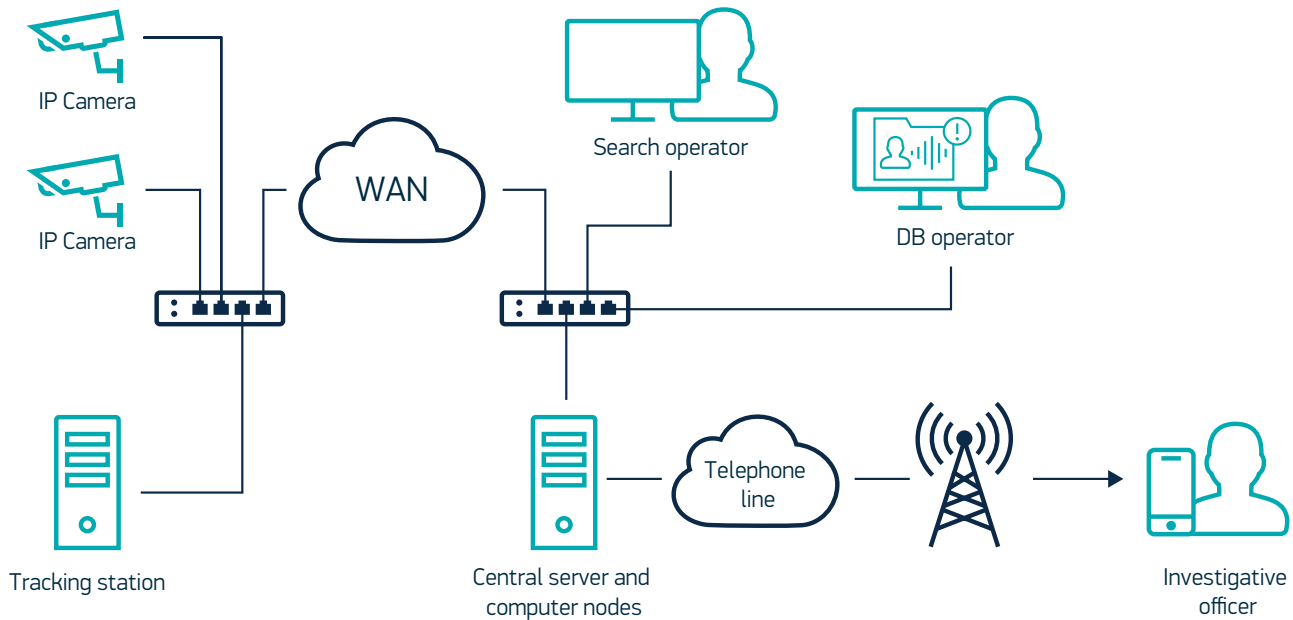
FUNCTIONS

- Face detection in live stream
- Biometric search in real-time and on request
- Notifications on operators' desktops, by e-mail, SMS, MMS
- Video streaming archives, linking of identification procedures with video-recording
- Database (up to several millions cards) containing facial pictures with metadata
- Facial images can be uploaded into a database from any source: photographs, video files, photo cameras, scanners, web cameras, CCTV cameras
- Automatic quality assessment of uploaded pictures by ISO 19794-5 standard
- Full workflow automation, access rights limitations, user activity audit

ADVANTAGES

- Real-time face detection and tracking in video stream
- Algorithms independence of aging, beard and hairstyle changes, skin color changes
- Adaptation to lighting conditions
- Image visualization on the monitor: live video and identified faces
- Navigation in video archive and database and saving of all the required parameters





Smart Tracker FRS Architecture

CHARACTERISTICS

Customer convenience:

- Fully automatic image preprocessing
- User-friendly interface
- Built-in context help

Accuracy:

- 97% of correct matches in case of 1% of false acceptance rate
- 100% correctly matched facial samples in 1 million database in case of analysis by the operator 10 best results on the database according to ISO 19794-5 standards

Performance:

- Identification result in 1-3 seconds
- Biometric search in 1 million database in 3 seconds
- Minimal image requirements for facial recognition
- Inter-pupil spacing larger than 32 pixels
- Pose up to +/-15° deviation from frontal image
- Batch input and integration with the existing databases

Failure tolerance:

- Fully distributed architecture
- Back-up at all levels and redundancy
- Quick recovery and robustness to hardware malfunction

Biometric database management:

- Built-in image quality assessment by ISO 19794-5 standard
- Face detection in video recordings and group images, subsequent card creation automatically
- Controlled input of facial images thanks to the integration with video-files, photo-cameras, scanners, web-cameras

Security

- Group- and role-based access control to system functionality
- User actions logging on central server and user activity audit tools
- Link between system components based on HTTPS protocol

Scalability:

- Up to 12 cameras connected to 1 tracking station
- Up to 8 tracking stations connected to 1 computing node
- Up to 30 computing node connected to 1 central server
- Up to 500 users for 1 central server

Easy deployment:

- Web-based interface is enough for execution most of the activities, no need to install the system on PC
- Minimum requirements to network capacity allow usage of the existing IT-infrastructure



ABOUT US

United and his R&D Partner are the leading developer of innovative, high-quality systems of recording, audio and video processing and analysis, speech synthesis and real-time recognition, high-accuracy voice and multimodal biometric solutions. With one of the largest R&D teams in the industry and more than 27 years of experience, United and his R&D Partner are well-known for solutions implemented by some of the largest international companies in both public and commercial sectors, from small forensic laboratories to large, multi-site contact centers, and nation-wide security systems.



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