Trueface

Verifying Picture Originality

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Innovative Photoprotection
for ID's with datamatrix

Thinking in systems

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ANY Biztonsági Nyomda
SECURITY SINCE 1851
FORMER STATE PRINTING COMPANY

TrueFace
Verifying Picture Originality

Infrared image

The photo that identifies the bearer of a certain document can be counted as the most vulnerable, most attacked part of it. The counterfeiters have worked out numerous methods of tampering photos. TRUEFACE is the trademark of ANY Biztonsági Nyomda PLC's latest development aimed to deter criminals from altering the photo of the legal bearer of an IDcard.
This system based on the combination of mathematics, security elements and the traditional printing technology.

Simple principle...

Before the personalization of the document a code has to be generated based on the photo of the document owner using a special algorithm. This code is further ciphered and then acts like a digital fingerprint of the photo during the personalisation process. This code is printed to the card later on in such a way that it is invisible to the human eye. Its visualisation requires a special reader. Since the code and the photo are linked to each other, it is virtually impossible to break the code that efficiently protects the photo from altering.

Complex solution...

Although, the working principle seems to be simple, the complexity of realisation ensures the high security of TRUEFACE.
The production process has three modules:

- FaceGen: creates the „basic vector space"
- FaceID: generates the code that identifies the photo
- FaceCheck: checks the validity of the photo

FaceGen

It's an autonomic program module that builds a multi-dimensional „basic vector space". This module processes multiplicity of facial images creating a „basic vector space" that characterises a certain population.
This „space" acts as an origo for the code generation process from the photo during the production and the control steps.

FaceID

Based on the original photo image and the „basic vector space" this module generates a unique identification code of the photo.

FaceCheck

The control of the originality of the photo starts with reading the photo and the hidden code by using a special document reader. The reader decrypts the encrypted code and -at the same time - the program module generates a code-sequence from the photo by using a special algorithm and the „basic vector space".

These two codes must match within a certain tolerance. If the codes are within the threshold values the photos are considered to be original. If the values exceed the predefined limits an exhaustive document examination is recommended.

Features

- Accuracy: above 99%
- Checking time: <2 sec
- Verification procedure: Off line (neither chip nor database needed)
- Security level: high

TECHNICAL SPECIFICATIONS OF CARD READER	
OPTICAL SPECIFICATIONS	
Image sensor	2048 × 1536
Image Resolution	450 PPi
Image colour depth	24 bits/pixels RGB
MECHANICAL DATA	
Size	135 mm × 96 mm × 187 mm
	(5.3" × 3.8" × 7.3")
Window Size	89 mm × 54 mm
	(3.5" × 2.16")
Case	ABS plastic
Window glass	4 mm tempered glass
Operating temperature	+5°C to 45°C
Operating humidity	0-95% (non condensing)
Weight	0,6 kg
No moving parts	✓
OTHER SPECIFICATIONS	
Interface	USB 2.0
Power source	from USB

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ANY Security Printing Company PLC
Ms Nikoletta SAJÓ
Head of International Sales
Halom utca 5, Budapest 1102, Hungary
Phone: +36 1 431 1317 | Fax: +36 1 431 1300
E-mail: sajo@any.hu
www.any.hu

ANY BIZTONSÁGI NYOMDA
SECURITY SINCE 1851
FORMER STATE PRINTING COMPANY