Automatic Document Authentication

Regula

forensic science systems

www.regulaforensics.com

established in 1992

day Regula is a group of companies located

egula – Minsk, Belarus

egula Baltija – Daugavpils, Latvia

egula Rus – Moscow, Russian Federation

egula Forensics – Washington, USA

egula Brazil – Rio de Janeiro, Brazil

AD – Kiev, Ukraine

artners/Distributors – more than 40 countries and regions globally
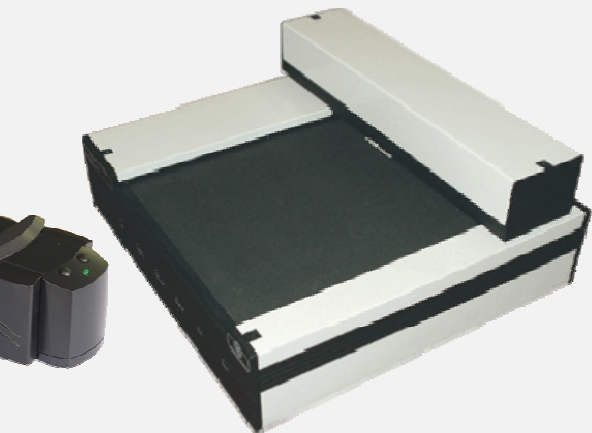
Regula Products

Magnifiers

Compact devices

Video spectral magnifiers

Visualizer of magnetic properties

Spectral Luminescent microscope

Video spectral comparators

Vehicle inspection devices

Spectral Luminescent microscope

Bullet speed measuring devices

Magneto-optical device for VIN examinations

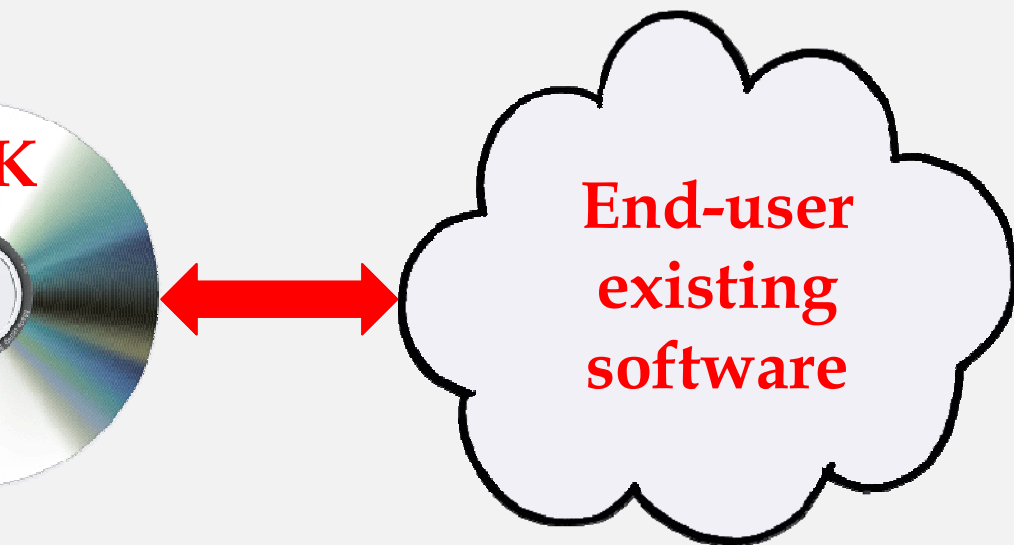Visualizer of magnetic properties

Magnetic ink scanner

Atlas of Passports:

- **8** volumes
- **200** documents per volume
- **1** page per document

Databases:

Passports: 1655 documen
Drivers Licenses: 475 document
Banknotes: 2109 documen

End-user existing software

Document Readers
Software Development Kit
(**SDK**)

Desk-top
ID-1 size reader

Desk-top
ID-3 size reader

Mobile
MRZ reader

Mobile
ID-3 size reader

Mobile
laboratory
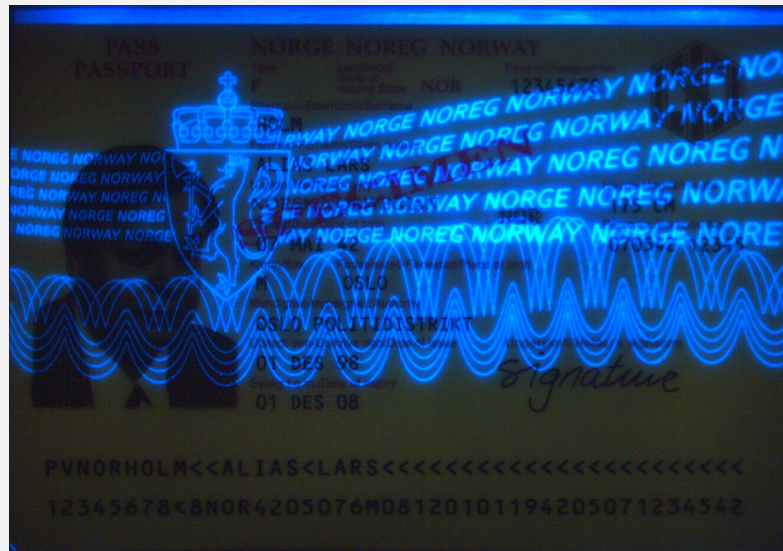
Mobile
high-resolution reader
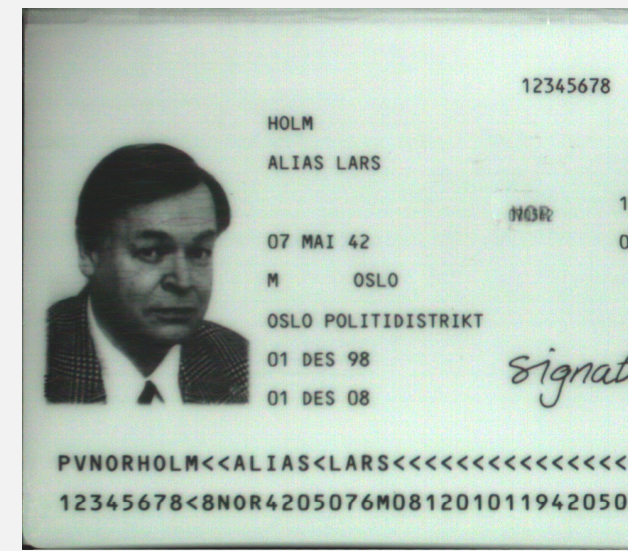(up to 1500 dpi)

eGate/Kiosk version

White
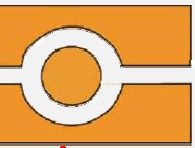(incident, top, side)

UV

IR

Axial

IR Luminescence

Score

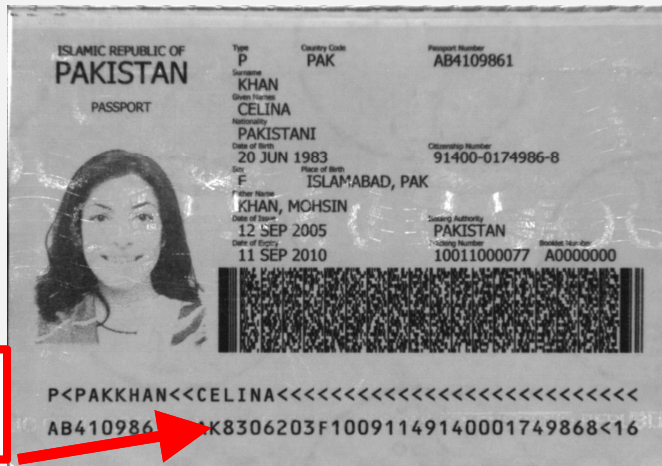| MRTDs	Any enrolled document
6	**22**

White

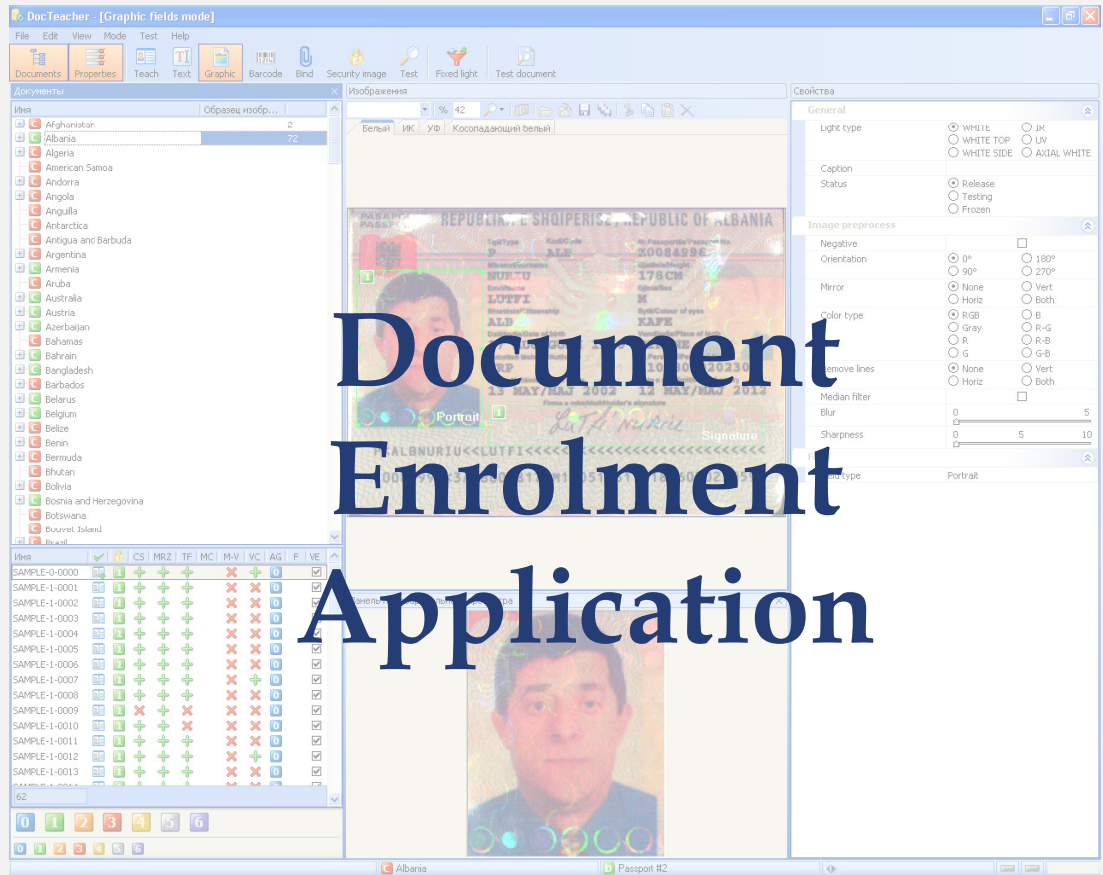**Data reading**
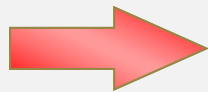
Check digits

onal data
parison

Document authentication

UV

IR B900

IR

UV dull
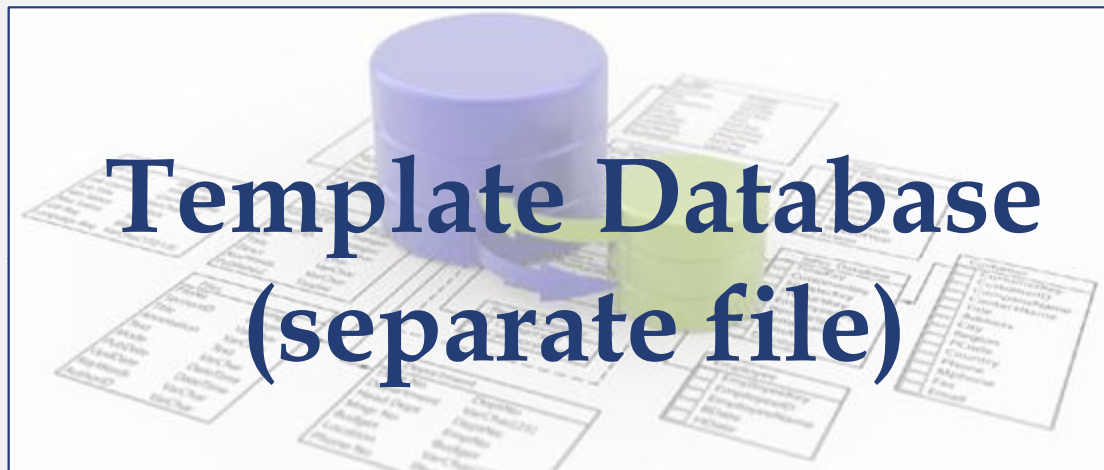
ew Document
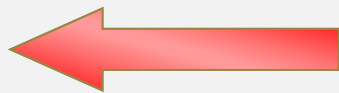
Document Enrolment Application

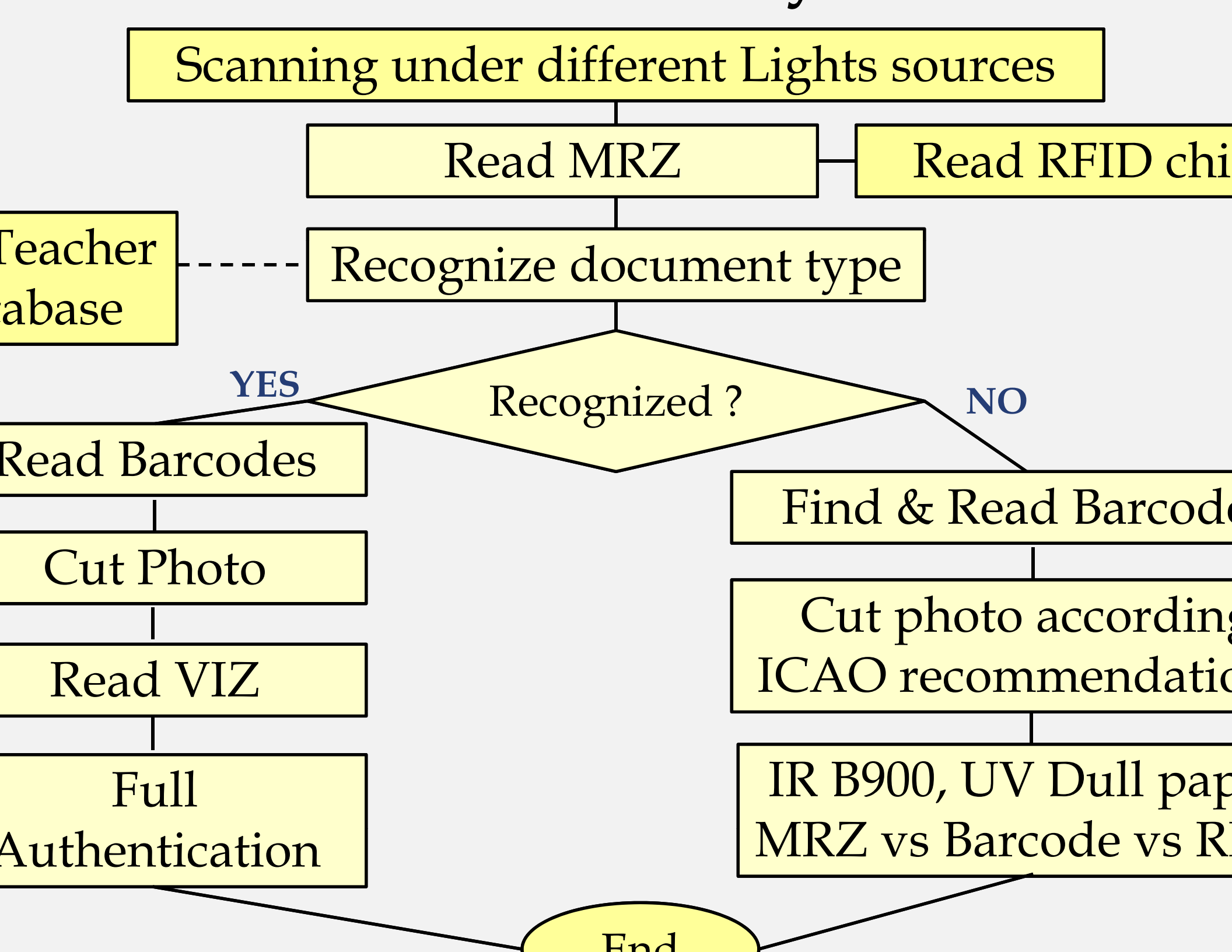Template Database (separate file)

SDK

```
                    Scanning under different Lights sources

                         Read MRZ          Read RFID chi

  Teacher              Recognize document type
  abase

                    ┌──────────────────────────┐
         YES         │       Recognized ?       │        NO
                     └──────────────────────────┘

  Read Barcodes                              Find & Read Barcode

  Cut Photo                                  Cut photo according
                                             ICAO recommendatio

  Read VIZ
                                             IR B900, UV Dull pap
  Full                                       MRZ vs Barcode vs RI
  Authentication

                              End
```
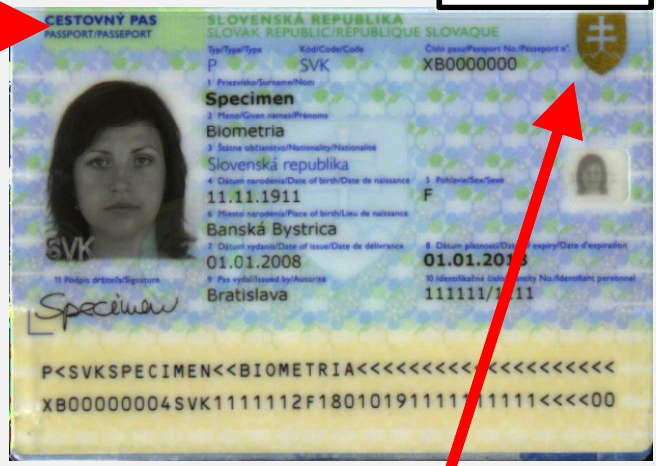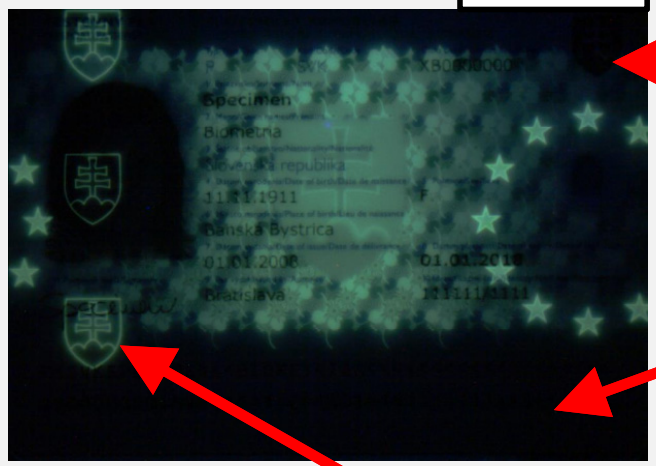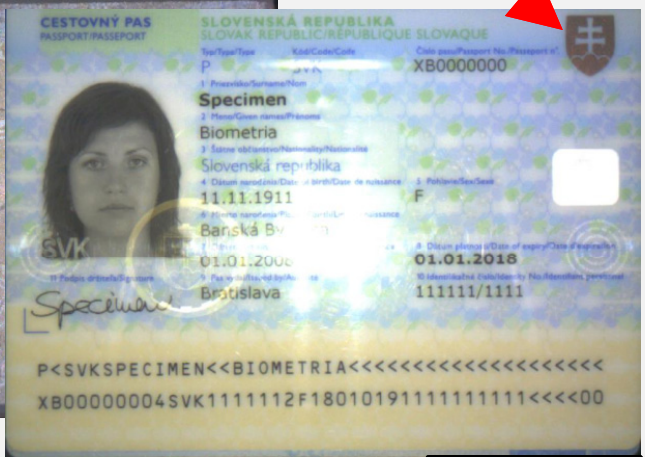
White patterns

White

OVI +

UV

UV fibers

UV dull patterns

UV patterns
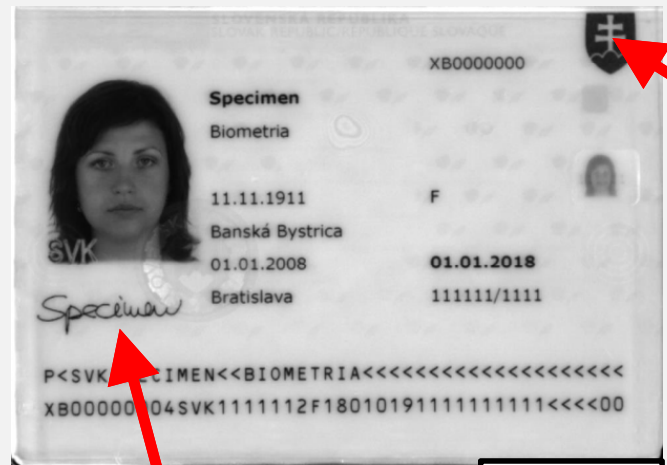
Retroreflective protection

Axial

IR patterns

IR visibility

IR

8

White
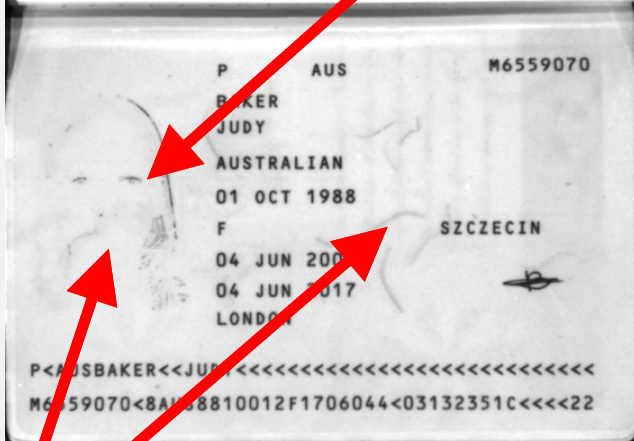
UV

den ge

Ghost pho

UV dull pa

Photo embedding type

IR visibility

Retroreflective protection

IR

Axial

6

check

OCR security text

White

UV
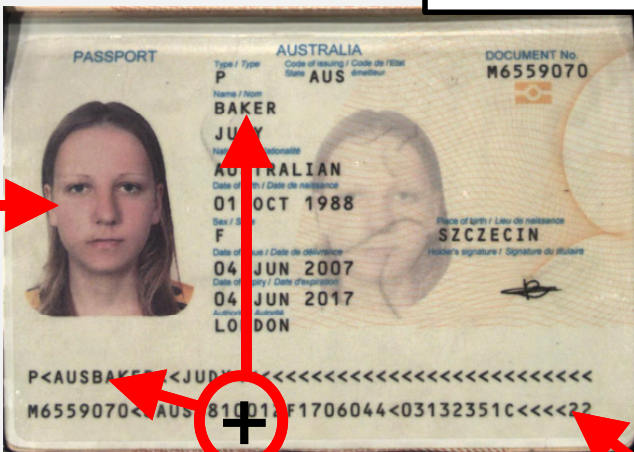
Hidden image

Personal data comparison

Check digits

UV dull paper

IR visibility

IR

IR B900
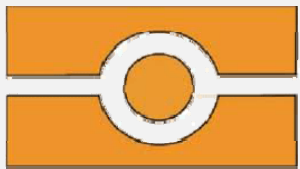
Retroreflective protection

Axial

8

check

- **MRTD with basic checks**
2 seconds

- **Enrolled MRTD with up to** checks
  – 3 seconds

- **eMRTD with up to 22 checks**
  – 5 seconds (average ti
which depends on chip)

Conclusions

Software solutions become more reliable;

Any secure document can be processed – passport, driver's license, etc.;

Any scanner can be used for document reading authentication but specialized devices with multi light sources are preferred;

Automatic verification allows better inspection documents, not only by law enforcement agencies also by commercial institutions.

Thank you!