

# Automatic Document Authentication



*Regula*

forensic science systems

ICAO Regional Seminar on MRTDs,  
Biometrics and Border Security

27-29 November 2012

Elephant Hill Resort, Victoria Falls, Zimbabwe



Desk-top  
motorized ID-1 size  
reader



Desk-top  
ID-1 size reader



Desk-top  
ID-3 size reader

## Mobile Document Readers



Mobile  
CRZ reader



Mobile  
laboratory



Mobile  
ID-3 size reader



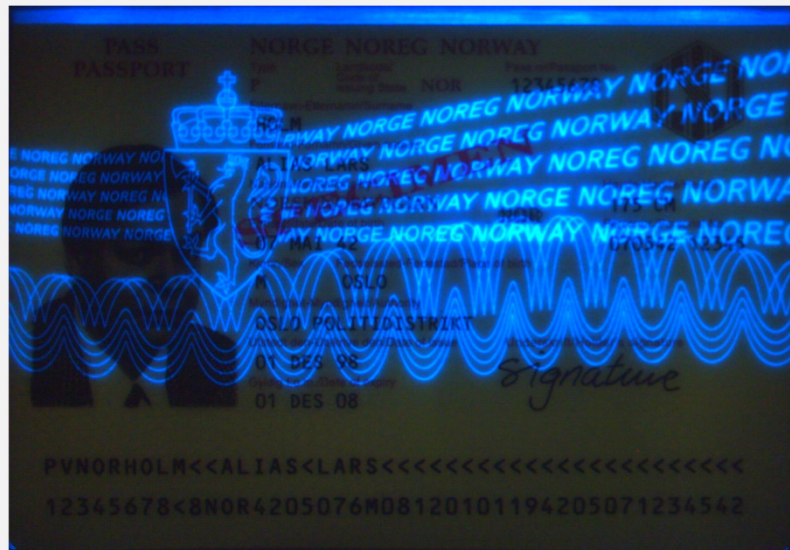
Mobile  
high-resolution reader  
(up to 1500 dpi)



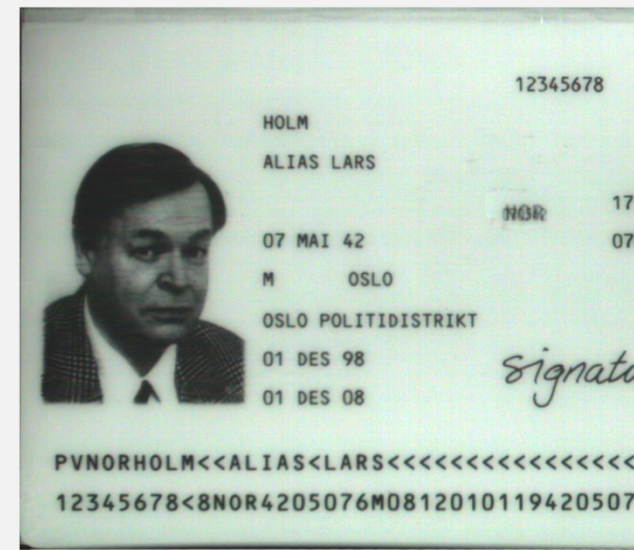
eGate/Kiosk version



White  
incident, top, side)



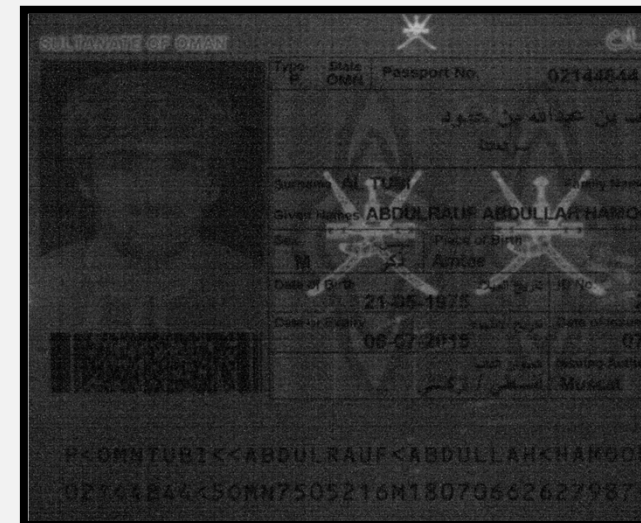
UV



IR



Axial



IR Luminescence

of documents

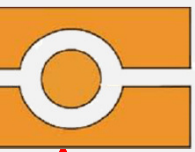
# Number of elements checked

**MRTDs**

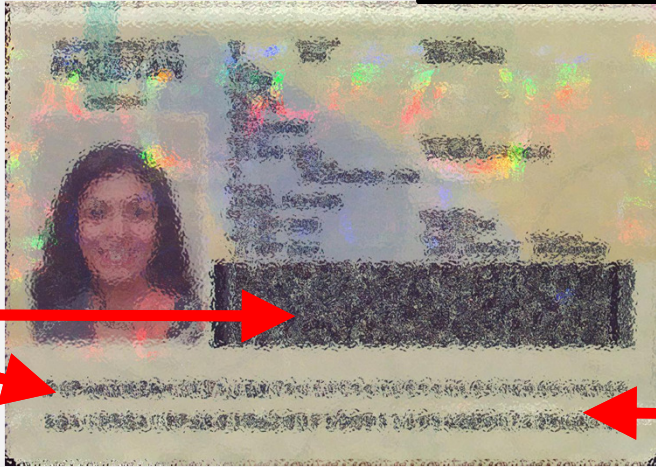
**6**

**Enrolled MRTDs  
and other IDs**

**22**



Visible



Data reading

Check digits

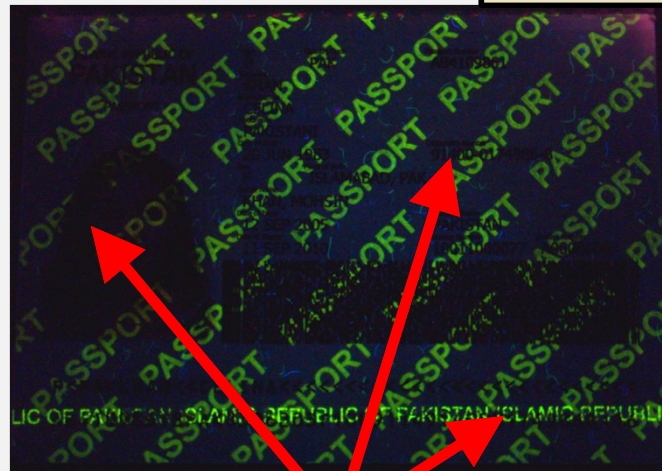
Personal data comparison

# Document authentication

IR



UV

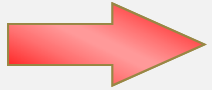


B900

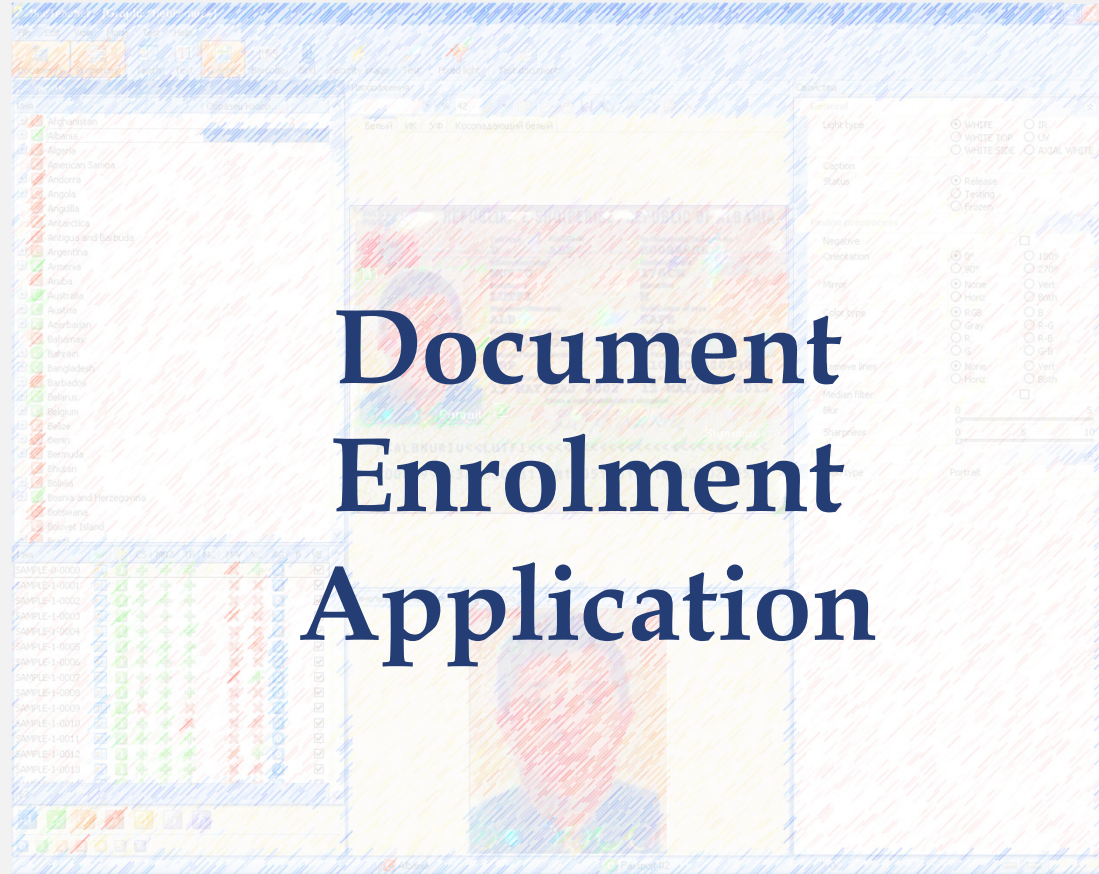
UV dull paper

cl

# New Document



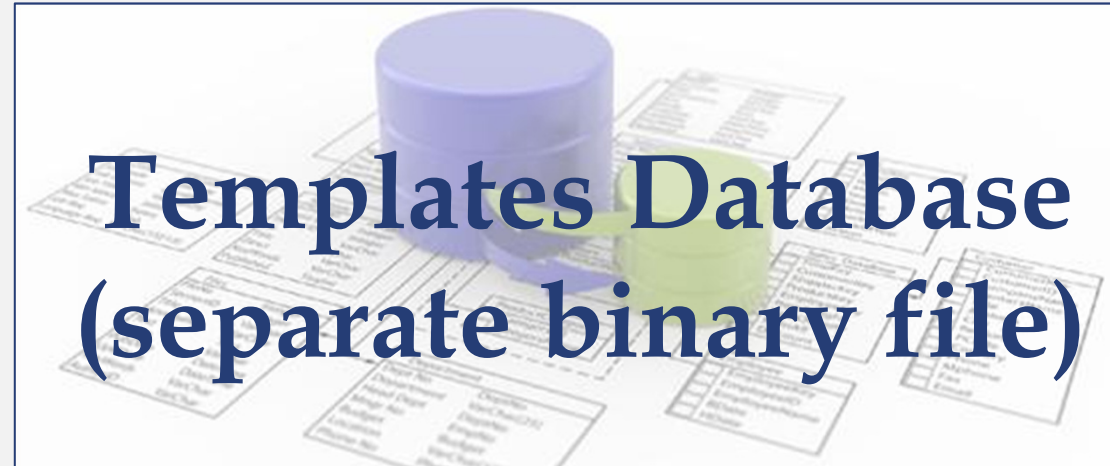
# Document Enrolment Application



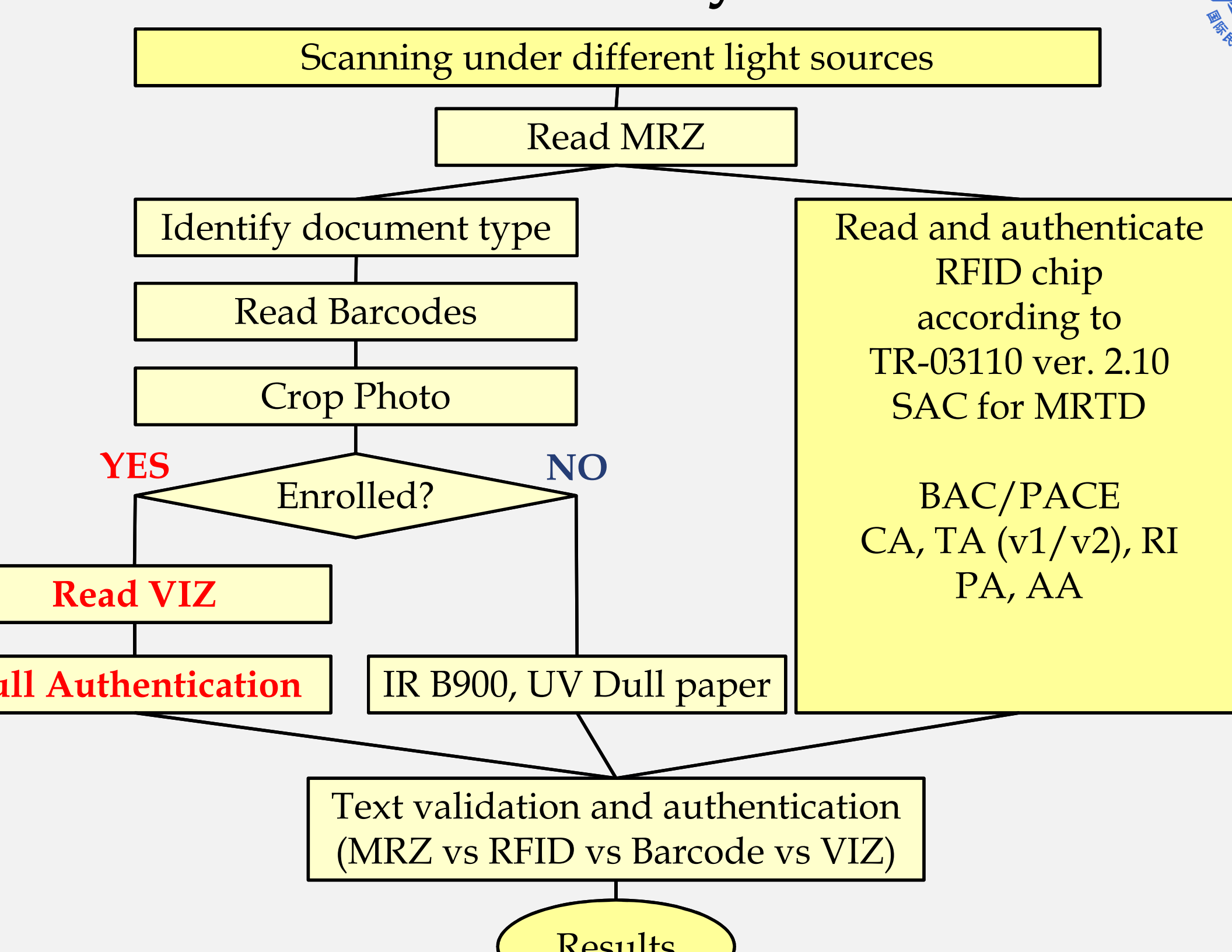
illed:  
1600 passports and ID cards  
500 driver's licenses  
186 countries and territories



# Templates Database (separate binary file)



# SDK



Scanning under different light sources

Read MRZ

Identify document type

Read Barcodes

Crop Photo

YES

Enrolled?

NO

Read VIZ

Full Authentication

IR B900, UV Dull paper

Read and authenticate  
RFID chip  
according to  
TR-03110 ver. 2.10  
SAC for MRTD

BAC/PACE  
CA, TA (v1/v2), RI  
PA, AA

Text validation and authentication  
(MRZ vs RFID vs Barcode vs VIZ)

Results





Visible



Hidden image

UV



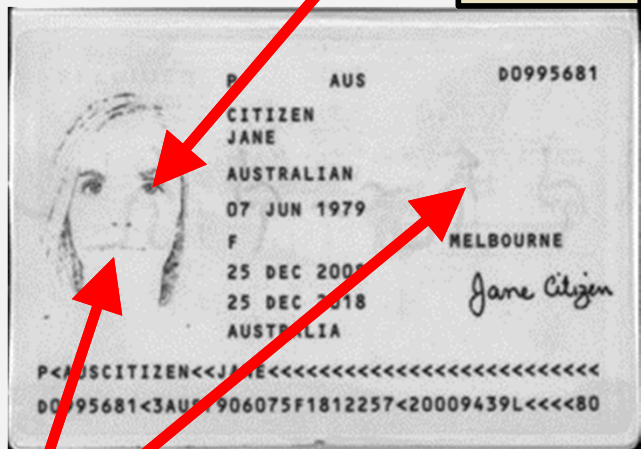
Ghost photo

UV dull part

embedding type

+

IR



IR visibility

Axial



Retroreflective protection

6

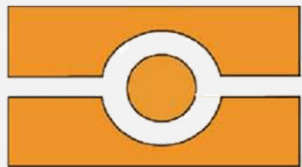




- MRTD with basic checks  
- less than **2 seconds**



- Enrolled MRTD with up to 10 checks  
- up to **3 seconds**



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

BSI TR-03105, Part 5.1  
EAC 1.11, Version 1.2)

BSI TR-03105, Part 5.2  
EAC 2, Version 1.1)

## Certificate

according to Technical Guidelines of the Federal Office for Information Security

### BSI-K-TR-0126-2012

ICAO compliant Inspection System with EAC

#### Regula Inspection System

Hardware: Regula mod. 7024.111

Software: RFID\_SDK.dll v3.0.4.1  
mrzctest.dll v4.4.33.0

from Regula Baltija Ltd.

Conformity to: BSI TR-03105 – Conformity Tests for Official Electronic ID Documents

The conformity of the product **Regula Inspection System**, to the Technical Guideline BSI TR-03105, Part 5.1 and 5.2, was evaluated by evaluation facilities recognized according to DIN ISO/IEC 17025 and was confirmed by the Federal Office for Information Security (BSI).

The following Test Standards have been applied for the performance of the conformity evaluation:

**BSI TR-03105, Part 5.1** – Conformity Tests for Official Electronic ID Documents  
– Test plan for ICAO compliant Inspection Systems with EAC 1.11, Version 1.2

**BSI TR-03105, Part 5.2** – Test plan for eID and eSign compliant eCard reader systems with EAC 2, Version 1.1  
Version 1.1 of 11 Mai 2011

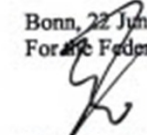
The product meets the requirements of the Technical Guideline BSI TR-03105.

This certificate is only valid in conjunction with the notification of conformity **BSI-K-TR-126-2012** and the complete conformity report. The validity is solely restricted to the evaluated version and release of the product as specified in the conformity report.

The certification procedure was conducted in accordance with the provisions of the BSI scheme for certification according to Technical Guidelines. The conclusions of the evaluation facility in the evaluation report are based on the evidence adduced.

This certificate is not an endorsement of the IT product by the Federal Office for Information Security. The responsibility for the security of the IT product by the Federal Office for Information Security is either expressed or implied.

Bonn, 22 June 2012  
For the Federal Office for Information Security

  
Bernd Kowalski  
Head of Department

Thank you!

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