

DERMALOG

Border Control

Balancing security
and convenience.





Border Control in a globalized World.

DERMALOG relies on its broad Experience on various Continents.

With an ever increasing mobility of persons and goods in a globalized world states need to find a balance between open but at the same time secured and controlled borders. At the same time criminals try to cross borders more freely and commit serious crimes. DERMALOG offers the right solutions to develop and implement border control systems as well as checks for secure border management relying on experience gained from worldwide projects. They include fully installed border control systems in Brunei, Kuwait and Malaysia.

Documents scanned in a Fraction of a Second – Internationally rewarded.

DERMALOG has received international recognition in various countries on different continents, i.e. Indonesia, Kuwait, The Netherlands, Germany, Romania, Austria, Georgia and Cyprus.

Travellers crossing the border - entering or departing - get their passports scanned within a few seconds. DERMALOG software offers several possibilities - from authenticity checks of the travel document to comparison with existing entries in databases.

The verification of biometrics, e-passports and smart cards is already implemented. The Malaysian Border Control System is successfully working in combination with an AFIS, delivered by DERMALOG. Ever since the deployment of this new border control solution it has been impossible for impostors to enter Malaysia by using different identities and not being noticed by the immigration authorities.

In Maldives DERMALOG has installed a Border Control System at the international airport in the capital Male. The central database located at the airport is replicated two more times to different locations of the immigration police.

Our successfully deployed projects have received international awards. DERMALOG was granted the „Global Biometrics and Border Control Award“ for Customer Value Enhancement by global growth consulting company Frost & Sullivan in London, May 14, 2013.

- Utmost border security
- Fast clearance of tourists and visitors
- Detection of false and duplicate identities
- Automated border clearance at the eGates, such as the DERMALOG BiometricGate
- Comprehensive statistics on travellers
- Integration with Interpol and other organizations
- Integration with ID card and ePassports



A modular Design can be customized to suit a wide Range of Applications.

DERMALOG meets the highest Requirements and Standards of Border Control Authorities.

The DERMALOG passport scanners XF9e, XF9 and XF3 are compact, full-page ePassport scanners offering interfaces, logistic structures and software modules to related peripheral authorities such as Federal Police forces and government agencies are available.

Seamless Integration into Border Control Procedures.

DERMALOG Scanners XF9e, XF9 and XF3.

The scanners utilizes visible light, infrared light, UV as well as focused light (XF3), it offers security pattern/ watermark checks with UV and IR scan. The MZR reading, comparison MRZ vs. VIZ (visible inspection zone) that is optional with the XF3 scanner. Additionally, the scanners reads 2D barcodes from paper-based documents and cell phones. The XF3 and XF9e read information on RFID chips.

Supporting various kinds of Authentication.

DERMALOG border control scanners support Basic Access Control (BAC), Supplementary Access Control (SAC), Extended Access Control (EAC) as well as active, passive and terminal authentication.

Travel Documents.

The scanners read landing cards with an analysis of check boxes. They scan boarding passes via barcode and magnetic stripes.

Additional Functions.

Displaying of travel history including records from different passports. Enrolment of fingerprints for later verification or AFIS handling. Additionally, persons' identities by fingerprint and/ or face can quickly be verified. DERMALOG's solutions include 1:n fingerprint identification (via AFIS). Other options include blacklist functions (with optional silent alert functions) as well as license plate recognition at borders. The Interpol MIND/FIND system can be integrated.

Border Control – Entry and Exit.



A points to the scanned passport photo.

B points to the database photo.

C points to the MRZ (Machine Readable Zone) data.

D points to the 'Travel History' table.

Type	Date of Travel	Visa Exp.	Officer	Remarks	Transport	Bus Number	Doc. Type	Iss. Country
Entry	18-08-09 16:09	09-11-09	Admits W. Term.	000A PR.	0204078		PASSPORT	GERMANY
Entry	24-08-09 16:09	23-08-09	Admits W. Term.	000A PR.	0204078		PASSPORT	GERMANY
Entry	02-08-09 08:39	01-08-09	Admits W. J.S.L.	000A PR.	0204078		PASSPORT	GERMANY
Entry	02-08-09 08:37	01-08-09	Admits W. Term.	000A PR.	0204078		PASSPORT	GERMANY
Entry	02-08-09 08:34	01-08-09	Admits W. J.S.L.	000A PR.	0204078		PASSPORT	GERMANY
Entry	02-08-09 16:02	26-07-09	Admits W. Term.	000A PR.	0204078		PASSPORT	GERMANY
Entry	24-08-09 16:06	26-07-09	Admits W. J.S.L.	000A PR.	0204078		PASSPORT	GERMANY
Entry	02-08-09 16:02	11-07-09	Admits W. Term.	000A PR.	0204078		PASSPORT	GERMANY

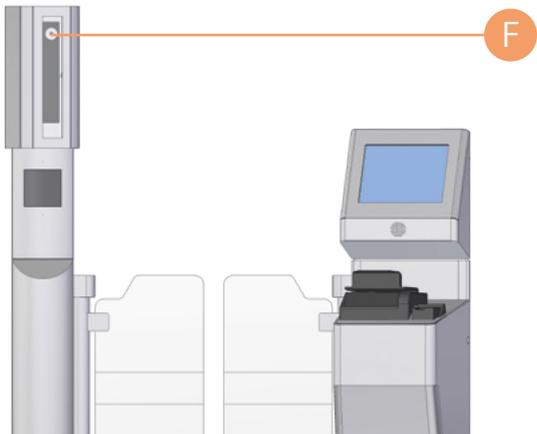
Entry & Exit Application

After the travel document has been scanned the application will show the photo that is scanned from the passport or read from the chip **A**. The travelers' photo is loaded from the database **B**. The photo can automatically be compared with the passport photo. The travelers data is extracted from the MRZ **C**. The complete travel history, including different documents used by the traveler is displayed **D**.

E points to the barcode on the arrival card.

Arrival Card

After the passport reading is completed, the traveler's arrival card is scanned **E**. The provided passenger information is extracted by checkbox analysis and will be linked to the traveler by barcode number.



Face Recognition

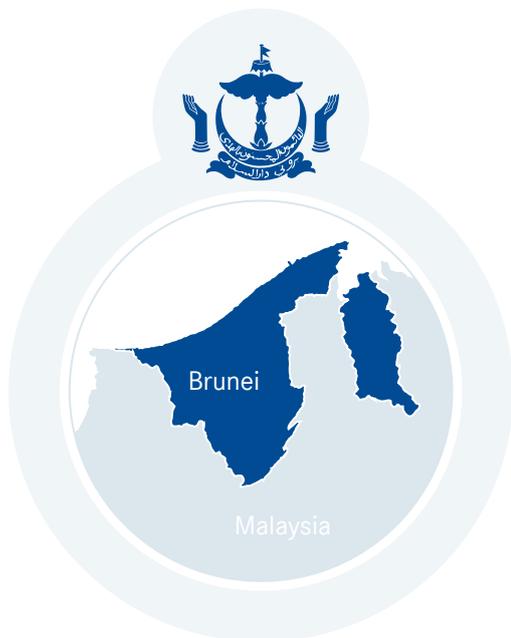
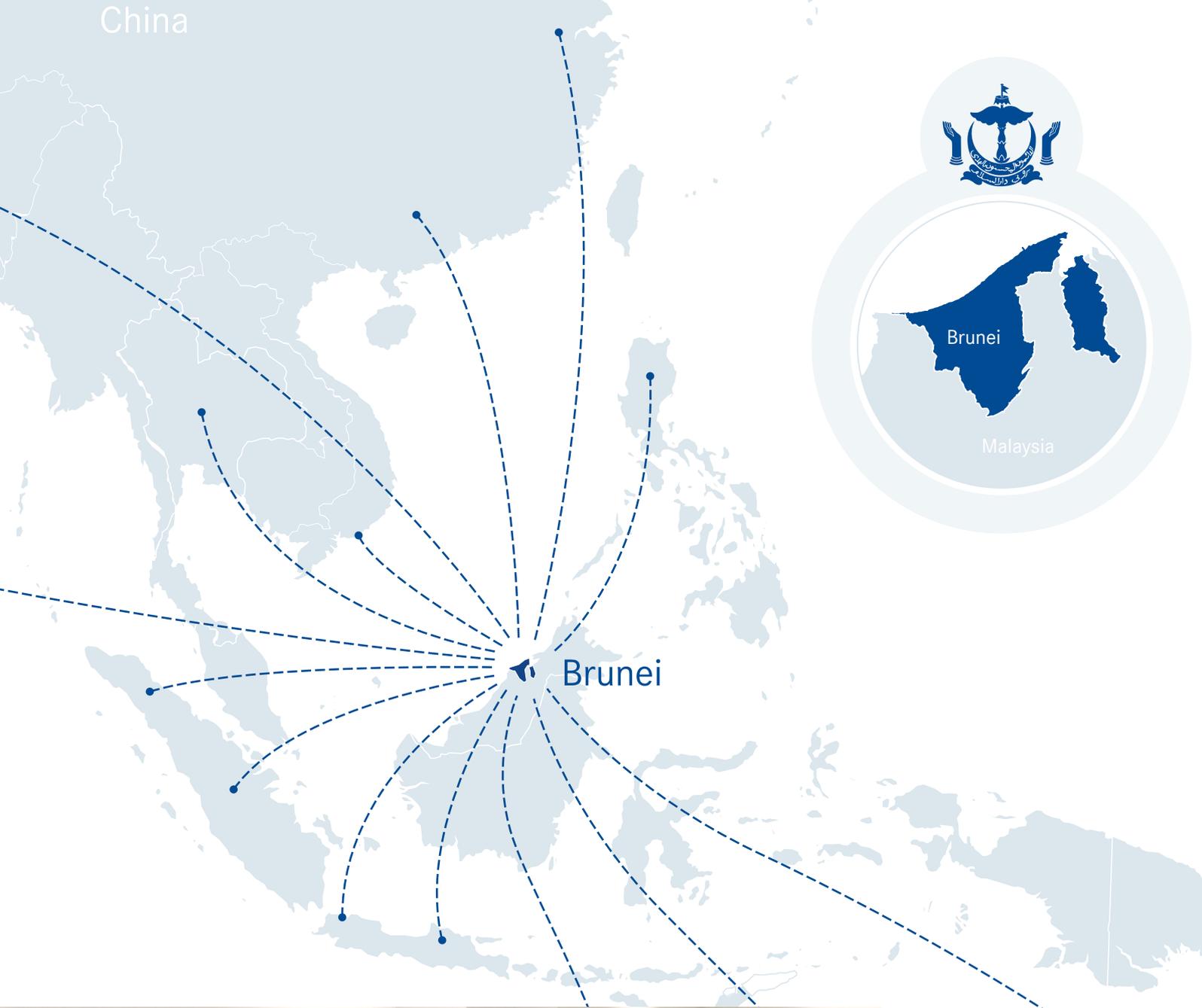
F Face recognition supports border control security staff and allows software to perform identity-checks against image databases. Corresponding camera technology can be integrated in eGates such as the DERMALOG BiometricGate.



Security Feature Analysis

G The system enables the immediate examination by immigration officers of all printed security features: **H** Different security seals and features are verified. Different filters extract security features.

China



DERMALOG enhances Brunei's superior Border Control System.

Innovative BiometricGate single Door System in a compact all-in-one Design.

In order to enhance and improve faster clearance at airports, DERMALOG has equipped the Sultanate's border control e-gates by networking border control systems, passport identification and ID card systems. Further systems will follow.

The performance of the installed BiometricGates has substantially been improved by new onboard cameras operating with 3D technology. Their main benefit consists in a fully automated and highly secure anti-tailgating single door system in a compact all-in-one design. Usually a two-door system is needed to ensure the authentication of every single person entering or leaving the country.

Brunei has been the world's first state to introduce a biometric identification card with fingerprint identification, the Brunei Smart Identity Card. DERMALOG also provided the Central Automated Fingerprint Identification System (AFIS) for identification and verification purposes. The DERMALOG AFIS for the National fingerprint database has a contractual capacity of 600,000 records.

DERMALOG has also provided the live scanners and peripheral hardware for the AFIS and their integration within the system. The AFIS went fully live in July 2000. For the issuance of the Brunei e-passport the applicants' ten fingerprints are captured during enrollment. In 2008 DERMALOG also provided the biometric e-gate system for Brunei which can be used by the citizens of Brunei holding the Brunei Smart Identity Card and citizens of Malaysia holding the Malaysian e-ID card.

Ever since the deployment of this new border control solution it has been impossible for impostors to enter Brunei by using different identities.

DERMALOG was responsible for the majority of the services of the above mentioned projects. This includes development, configuration, testing, installation and integration of the software as well as the hardware. DERMALOG also provided first and second level training as well as the maintenance.



Outstanding Features

- > Read and authentication passports, visas, ID cards and driver's licenses
- > High reliability, no moving parts
- > Automated face comparison between data page photo and RFID DG2
- > Reads 2D barcodes from paper based documents and cell phones

DERMALOG scanners XF9e[®] and XF9[®].

Versatile Functions - reading and verifying Identity Documents and processing complete Passports for higher Security and Speed.

Balancing Security and Convenience.

The DERMALOG XF9e and XF9 scanners represent a series of compact, full page scanners that provide automatic and accurate data extraction and document verification able to read multiple document types. They extract digital data from contactless chips (XF9e) as well as from magnetic stripes. The chip reading is completed in a single step. DERMALOG offers the latest in ID reading and verification combined with rapid and easy operation. No moving parts are liable to failure. The scanners offer maintenance-free operation.

The DERMALOG XF9 is a combination of MRZ passport and full page ID scanner in an ultra compact, ergonomic housing.



The DERMALOG XF3 - another Border Control Solution.

Intended for automatic reading and authenticity verification of passports, ID cards, visas and other documents. Providing the capability of text data recognition, reading barcodes, RFID tags and smart cards.

Technical Data XF9 /XF9e



Active Scan Area	125 mm × 88 mm (4.92" × 3.46")
Illumination Sources	LED visible white, IR (B900), UVA (optional)
Resolution / Dimension	500 ppi
Provided Images	Visible, IR, UV (UVA), OVD image, glare-free image
Image Formats	BMP, JPG, JPG2000, PNG
Image Color Depth	24 bits/pixels (RGB, 8 bits/pixels(IR image))
Reading Capability	Automatic Document Detection (ADD), Reflection Removal, CAO compliant documents per ICAO 9303 specification Part 1, Part 1v2, Part 2, Part 3 and Part 3v2 for Type ID-1, ID-2 and ID-3 MRZ Optical Character Recognition, VIZ reading available, barcode reading, RFID option, magnetic option, contact smart card option
Weight/Dimension	1.1 kg (2.43 lbs.); width: 178 mm × depth: 176 mm × height: 146 mm (7.01" × 6.93" × 5.75")
Operating Temperature/ Operating Humidity	5 °C to 45 °C (45 °F to 113 °F) at 0-95 % (non-condensing)
Power Supply	Universal external power supply, 100-240 V AC, 50/60 Hz
Interface	USB 2.0 high speed
Maintenance	no moving parts, maintenance-free operation

Technical specifications are subject to change without prior notice due to ongoing technical innovations.

More information:



Request an appointment

Get advice from our skilled sales team

+49 (0) 40 413 227 - 0

info@dermalog.com



Internet

Receive further information on our company website

www.dermalog.com

Head Office

DERMALOG Identification Systems GmbH
Mittelweg 120
20148 Hamburg
Germany

Berlin Office

DERMALOG Identification Systems GmbH
Kronenstrasse 1
10117 Berlin
Germany

Malaysia Office

DERMALOG AFIS Asia Sdn Bhd
8-4, 8th Floor, Bangunan Malaysia RE
No. 17, Lorong Dungun
Damansara Heights
50490 Kuala Lumpur

HIGH TECH
MADE IN GERMANY



Singapore Office

DERMALOG Singapore Technical Services Pte. Ltd.
Southbank
883 North Bridge Road, #17-02
198785 Singapore

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DERMALOG Identification Systems GmbH, Mittelweg 120, 20148 Hamburg, Germany. Technical details as of May 2016