

# Once IAI Always IAI

IAI systems have never been replaced by competitor's systems. This is illustrated by several case studies, for instance in Sweden:



**In 2005**, IAI delivered two BookMaster systems for the application of ImagePerf/TLI and NumberPerf in the Swedish passports and one CardMaster system for the application of ImagePerf/TLI in the Swedish ID-card to security printer Setec Oy. Personalisation was done on Maurer systems.

**In 2009**, Setec Oy had become AB Svenska Pass. They needed to expand their production capacity and purchased two BookMaster One systems from IAI for the complete personalisation of the Swedish passport.

**In 2011**, AB Svenska Pass (100% owned by Gemalto since 2012) chose for IAI equipment again. One new

BookMaster One system, one new CardMaster One system, two upgrades of existing BookMaster One systems, fourteen BookMaster Desk systems and one CardMaster Desk system were purchased for the complete personalisation of Swedish national passports, emergency passports, diplomatic passports, service passports, alien passports and several ID-1 format cards. These documents are currently being issued (as from January 2012). The delivery also included a Maintenance Agreement and a Recommended Spare Parts Set.

The national passport, the emergency passport and the national ID-card are issued in Sweden by the local police authority. The National

Police Board has an overall responsibility for the issuance of these documents. Embassies issue these document abroad. The diplomatic passport and the service passport are issued by the Ministry of Foreign Affairs. The travel documents conventions 1951 and 1954, the alien's passport are issued by the Swedish Migration Board.

*"IAI systems  
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iai industrial systems

*Tilt your expectations*



# Which IAI personalisation technologies are used in the Swedish passport?

The Swedish national passport is completely personalised by IAI's BookMaster One system. This includes the following applications and technologies:



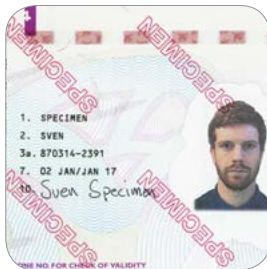
### Book identification

A scanner reads the barcode on the outside cover in order to identify the booklet.



### Laser engraving

Personal information is engraved in the polycarbonate data page on both sides. Engraved information on the data page includes a photograph under OVD, an MLI, a tactile number, a number in the metallic holofoil and a number on the transparent window. Laser engraving on the title page includes a photograph and tactile number through the hinge.



### Inkjet printing

The photograph and personal data is printed on the observation page using an industrial inkjet engine.

## The Swedish emergency passport

The Swedish emergency passport is a simpler version of the national passport and is personalised by IAI's BookMaster Desk systems. This includes the following applications and technologies:



### Chip encoding

All personal data is encoded in the contactless chip.



Personal information is engraved in the polycarbonate data page on both sides. Engraved information on the data page includes a photograph under OVD, an MLI, a tactile number, a number in the metallic holofoil and a number on the transparent window. Laser engraving on the title page includes a photograph and tactile number through the hinge.



### IPI image

The printed photograph contains hidden information that becomes visible when viewed through the special lens structure in the window in the data page.

### Book identification

The barcode on the back cover is scanned with a handheld barcode scanner to identify the book.



### NumberPerf

A personal number is perforated through all the visa pages and the back cover.



### Verification

A camera verifies all applied features and also checks certain pre-printed information.

### Laser engraving

The photograph and personal data is laser engraved into the data page. This includes an MLI feature and a number in the metallic DOVID.



### ImagePerf/TLI

The photograph and a number is perforated through the data page. The number is visible under different angles (Tilted Laser Image).



### Label printing

A label containing the name, number and information for the logistic downstream process is printed and applied to the back cover of the booklet.

### Chip encoding

The personal information is encoded into the contactless chip.



# Which IAI personalisation technologies are used in the Swedish national ID card?

The Swedish national ID card is completely personalised by IAI's CardMaster One system. This includes the following applications and technologies:



## Laser engraving

The personal data is engraved on the frontside of the card. This includes a CLI feature. The MRZ data is engraved on the backside of the card. A personal number is also engraved in the metallic DOVID on the back and in the transparent edge of the card (microtext).

## ImagePerf/TLI

The photograph and the letter SWE + length of holder are perforated through the card. The number is visible under different angles (Tilted Laser Image).

## Chip encoding

Personal information is encoded into the contact and contactless chip.



## Project challenges

The new Swedish passport design contains new features:

- Laser engraving on the title page
- Full colour inkjet printing on page 3 with an Invisible Personalised Image
- Application of a second personalised NumberPerf

In order to personalise the new Swedish passport, IAI had to completely customise the BookMaster One design and also integrate new technology. The two existing BookMaster One systems were upgraded

with new modules in order to be able to personalise the new passport.

The old Swedish passport design and the new Swedish passport design had to be issued simultaneously on a new location, without delays to issuance. A logistical challenge.

Besides the technical and logistical challenges of the BookMaster One systems, the Swedish project was also the first project where IAI's BookMaster Desk systems were supplied. And not only

new passport equipment was required, also a CardMaster One and several CardMaster Desk systems were part of the delivery. All this in a relatively short delivery time of seven months.

## Result

Relocation and upgrade of existing systems, installation of all systems at the new site and training of the staff was all implemented successfully. The deadline of January 1st 2012 was reached without delays. All systems operate to full customer satisfaction.



BookMaster One®



CardMaster One®



BookMaster Desk®



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