

# **Mongolia ID Card Smart Card Map**

## **Revision 1.0.3**

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## 1. Revision Log

Revision	Date	Modified by	Description of Change
v. 1.0.3	09 May 2012	HJ Hwang	<ul style="list-style-type: none"><li>- Update EF INFO Data Element</li><li>- Update EF PHOTO Body size value</li><li>- Update AC value of EF ADDRESS1, EF ELECTION1~ELECTION10 and EF APP1~EF APP10</li></ul>

## 2. Definitions and Abbreviation

HEX Represents a Hexadecimal number. Valid values 0 to F.

ASCII This is a ASCII encoded alphanumeric char used.

BIN This is a binary data used

DEC Represents a decimal number. Valid values 0 to 9

## 3. Overview

### 3.1 Introduction

This document describes the data elements that will be placed into the ID application during personalization.

### 3.2 Audience

This specification is intended for developers developing card personalization system.

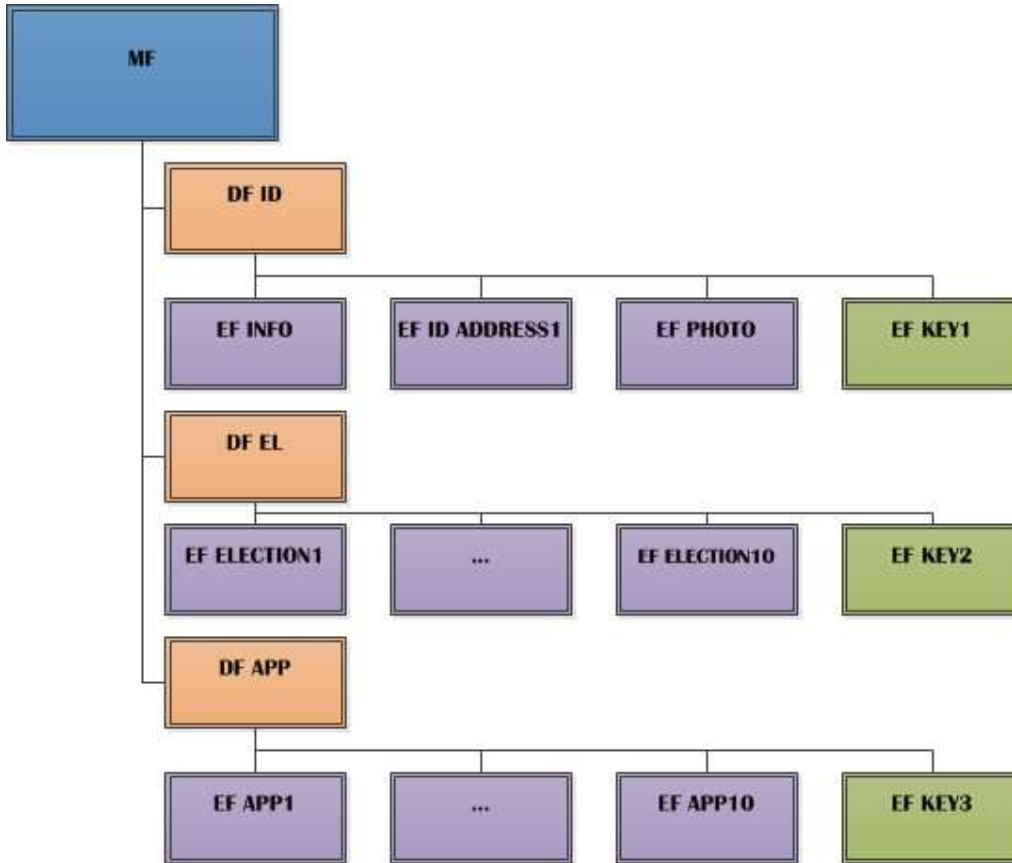
### 3.3 Data stored in ID card

The ID card contains two applets, which includes the MPCOS applet and BioPin Manager.

## 4. MPCOS Data Layout

### 4.1 Introduction

This section talks about the layout of the data for the ID Personalization. The following diagram shows the organization of the DF and EF stored in the MPSCOS Card.



## 4.2 MF

The follow table describes the layout of the data for the ID application.

File/Field	ID	Size in Byte
DF ID	0xDF01	2
EF INFO	0x0101	898
EF PHOTO	0x0102	15365
EF ADDRESS1	0x0103	1060
EF KEY 1	0x0104	24
DF EL	0xDF02	2
EF ELECTION1	0x0201	1029
EF ELECTION2	0x0202	1029
EF ELECTION3	0x0203	1029
EF ELECTION4	0x0204	1029
EF ELECTION5	0x0205	1029
EF ELECTION6	0x0206	1029
EF ELECTION7	0x0207	1029
EF ELECTION8	0x0208	1029
EF ELECTION9	0x0209	1029
EF ELECTION10	0x020A	1029
EF KEY 2	0x020B	24
DF APP	0xDF03	3
EF APP1	0x0301	1029
EF APP2	0x0302	1029
EF APP3	0x0303	1029
EF APP4	0x0304	1029
EF APP5	0x0305	1029
EF APP6	0x0306	1029
EF APP7	0x0307	1029
EF APP8	0x0308	1029
EF APP9	0x0309	1029
EF APP10	0x030A	1029
EF KEY 3	0x030B	24

## Data elements:

S/n	Name	Format	Length	Remarks	Maximum Size in Bytes
1	File Structure Version Tag	BIN	1	0x00	1
2	File Structure Version Length	BIN	2	0x0002	2
3	File structure version	BIN	2	File structure version, set to 0x0001	2
4	Registration Number Tag	BIN	1	0x01	1
5	Registration Number Length	BIN	2	<del>0x0014</del> VAR	2
6	Registration Number	UTF8	10	Registration Number in Mongolian	20
7	Birthday Tag	BIN	1	0x02	1
8	Birthday Length	BIN	2	0x000A	2
9	Birthday	ASCII	10	In YYYY/MM/DD format	10
10	SEX Tag	BIN	1	0x03	1
11	SEX Length	BIN	2	0x000E	2
12	SEX	UTF8	7	Sex in Mongolian	14
13	Given name Tag	BIN	1	0x04	1
14	Given name Length	BIN	2	VAR	2
15	Given name	UTF8	1-50	The given	100



				name in Mongolian	
16	Surname Tag	BIN	1	0x05	1
17	Surname Length	BIN	2	VAR	2
18	Surname	UTF8	1-50	The Surname in Mongolian	100
19	Family Name Tag	BIN	1	0x06	1
20	Family Name Length	BIN	2	VAR	2
21	Family name	UTF8	1-50	The Family name in Mongolian	100
22	Date of expiry Tag	BIN	1	0x07	1
23	Date of expiry Length	BIN	2	0x000A	2
24	Date of expiry	ASCII	10	In the format of YYYY/MM/DD	10
25	Date of issue Tag	BIN	1	0x08	1
26	Date of issue Length	BIN	2	0x000A	2
27	Date of issue	ASCII	10	In the format of YYYY/MM/DD	10
28	Issuer Authority Tag	BIN	1	0x09	1
29	Issuer Authority Length	BIN	2	VAR	2
30	Issuer Authority	UTF8	1-50	Issuer authority in Mongolian	100
31	Place of birth	BIN	1	0x0A	1

	Tag				
32	Place of birth Length	BIN	2	VAR	2
33	Place of birth	UTF8	1-75	Place of birth in Mongolian	150
34	New registration number Tag	BIN	1	0x0B	1
35	New registration number Length	BIN	2	0x000C	2
36	New registration number	ASCII	12	New registration number	12
37	ID Card Number Tag	BIN	1	0x0C	1
38	ID Card Number Length	BIN	2	<del>0x0014</del> VAR	2
39	ID Card Number	UTF8	10	ID card number Mongolian	20
40	Address Tag	BIN	1	0x0D	1
41	Address Length	BIN	2	VAR	2
42	Address	UTF8	1-104	The address in Mongolian	208
					<b>898</b>

### 4.3 EF PHOTO

Data elements:

S/n	Name	Format	Length	Remarks	Maximum Size in Bytes
1	File Structure Version Tag	BIN	1	0x00	1
2	File Structure Version Length	BIN	2	0x0002	2
3	File structure version	BIN	2	File structure version, set to 0x0001	2
4	Picture	JPEG2000 in color with ICAO header	1-15360	Portraits 300 dpi	15360
					<b>15365</b>

## 4.4 EF ADDRESS1

Data elements:

S/n	Name	Format	Length	Remarks	Maximum Size in Bytes
1	New Addresses	BIN	1060	The system will store the new address after the citizen move to another location. This is the space allocated for store 5 address in TLV structure. It should set to 0x00 initially.	1060
					<b>1060</b>

## 4.5 DF EL

The DF EL is the entry to the Election application.

Field	Size in Byte	Value	Desc
File ID	2	0xDF02	
FDB	1	0x38	Dedicated File
OPT	1	0x02	Cancel debit command is disabled
Body Size	2	0x0002	The length of the DF name
Group 1 AC	2	0xC000	NEVER
Group 2 AC	2	0xC000	NEVER
Group 3 AC	2	0x0000	Not use
File Body	2	0x454C	The name of the DF is "EL"

## 4.6 EF ELECTION1 to EF ELECTION10

Data elements:

S/n	Name	Format	Length	Remarks	Maximum Size in Bytes
1	Election	BIN	1029	The space reserved for the Election information. It should be set to 0x00 initially	1029