

Modify DatafoxStudioFile with DLL-Function

Index: V2.5 Vom: 06.08.2014

Verfasser: B. Ottmann



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This Document is a short description how you can modify our DatafoxStudioIV-File.

We give you the ability to change data over xml, with the DLL-Function named DFCSModifyStudioFile.

Declaration of Funktion:

```
extern "C" __declspec(dllexport)
int __stdcall DFCSModifyStudioFile(char *sourceFile, char
*destFile, char *changeData, int flags, int *piError);
```

Export:

_DFCSModifyStudioFile@20

Description of Parameters:

char *sourceFile	sourcefile (*.aes). file to modify.										
char *destFile	destfile (*.aes). file with modified data. if you name sourceFile like destFile, sourceFile would overwritten with destFile.										
char *changeData	Either you give an xml-string, beginning with <?xml, or an path to xml-file.										
int flags	not used, reserved.										
int *piError	object of error. <table><tr><th>code</th><th>description</th></tr><tr><td>44</td><td>failed to open XML-File and/or parse your changeData argument.</td></tr><tr><td>45</td><td>tags in your xml-Data are unknown. for example you have an element like <example></example> and this is not documented in this version of Function.</td></tr><tr><td>46</td><td>data part of xml tag is out of range or missing. anything with contents of given xml-data are wrong.</td></tr><tr><td>47</td><td>dll function could not apply the modified data on content of sourceFile.</td></tr></table>	code	description	44	failed to open XML-File and/or parse your changeData argument.	45	tags in your xml-Data are unknown. for example you have an element like <example></example> and this is not documented in this version of Function.	46	data part of xml tag is out of range or missing. anything with contents of given xml-data are wrong.	47	dll function could not apply the modified data on content of sourceFile.
code	description										
44	failed to open XML-File and/or parse your changeData argument.										
45	tags in your xml-Data are unknown. for example you have an element like <example></example> and this is not documented in this version of Function.										
46	data part of xml tag is out of range or missing. anything with contents of given xml-data are wrong.										
47	dll function could not apply the modified data on content of sourceFile.										

Return value:

result is 0 by error (shown in "description of parameters").

result is 1, execution ok.

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Data of xml:

```
<?xml version="1.0" ?>
```

```
<modify>
```

```
  <device>
    <type>PZE-MasterIV</type>
  </device>
```

```
  <transponder>
    <technic>HITAG-2</technic>
    <inc_value>1</inc_value>
    <password>4D494B52</password>
    <valueblock_1>
      <segment>4</segment>
      <format>0</format>
      <length>6</length>
    </valueblock_1>
    <extern>
      <type>0</type>
    </extern>
  </transponder>
```

```
  <password>
    <system>
      <value>1234</value>
    </system>
    <user>
      <value>2345</value>
    </user>
    <menu_item>
      <name>MEID_003</name>
      <value>4711</value>
    </menu_item>
  </password>
```

```
  <fingerprint>
    <security_level>20</security_level>
    <image_quality>70</image_quality>
    <minutiae_count>20</minutiae_count>
  </fingerprint>
```

```
  <replace>
    <name>
      <search>MID_001</search>
      <replacement>PZE Setup</replacement>
    </name>
    <name>
      <search>MEID_001</search>
      <replacement>Kommt:</replacement>
    </name>
    <name>
      <search>MEID_002</search>
      <replacement>Geht:</replacement>
    </name>
    <name>
      <search>MEID_003</search>
      <replacement>Abwesend</replacement>
    </name>
```

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<code></replace></code>
<code></modify></code>

Main-Tag is <modify>

/modify/device/type:

- PZE-MasterIV
- ZK-MasterIV
- BDE-MasterIV
- MOBIL-MasterIV
- MDE-MasterIV
- AE-MasterIV
- TimeboyIV
- Exklusiv-Line IV
- Flex-MasterIV
- Timeboy-Mobil-PZE
- EVO-Line 2.8
- EVO-Line 4.3
- IPC-Extension A (Vario 5.7)
- IPC-Extension B (Vario 10, etc.)
- IPC-Extension C (Q7)

/modify/transponder/technic:

Value	Description
EM4102	Unique
HITAG-2	Hitag2
Legic-Prime	Legic Prime
MIFARE	Mifare Classic
iButton	iButton
SimonsVoss	SimonsVoss Smartrelais G1 / G2
Nedap	Nedap
HID-ICLASS	HID iClass
HID-PROXKEY	HID ProxKey
ETSI	ETSI
NONE	Deactivate Transponder

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Overview of EM4102:

Transpondertyp : Unique (EM4102)

Ausweisnummer

☐ 32bit (4 Byte) Dec (10 Stellen)

☒ 40bit (5 Byte) Dec (13 Stellen)

/modify/transponder/valueblock_1/bit

/modify/transponder/valueblock_1/format

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Overview of HITAG-2:

Transpondertyp : Hitag2

Auswahl Segmente für Lesen

Segment Nr.	Ablageformat	Feste Länge
1. 4	Dec (max. 10 Stellen)	Kein
2. Kein	Dec (max. 10 Stellen)	Kein
3. Kein	Dec (max. 10 Stellen)	Kein

Hinweis: Bei fester Feldlänge wird ggf. mit führenden Nullen aufgefüllt.

Ausweis schreiben

Startwert 1 : 10 0 ☐ Autoinkrement

Startwert 2 : 12 0 ☐ Autoinkrement

Startwert 3 : 14 0 ☐ Autoinkrement

Autoinkrementwert für alle : 1

Passwort für Ausweise (Standard: 4D494B52)

Passwort in Hexadezimalangabe (max. 8 Zeichen) : 4D494B52

1. /modify/transponder/valueblock_1/segment
2. /modify/transponder/valueblock_1/format
3. /modify/transponder/valueblock_1/length
4. /modify/transponder/valueblock_2/segment
5. /modify/transponder/valueblock_2/format
6. /modify/transponder/valueblock_2/length
7. /modify/transponder/valueblock_3/segment
8. /modify/transponder/valueblock_3/format
9. /modify/transponder/valueblock_3/length
10. /modify/transponder/valueblock_1/init_value
11. /modify/transponder/valueblock_1/autoinc
12. /modify/transponder/valueblock_2/init_value
13. /modify/transponder/valueblock_2/autoinc
14. /modify/transponder/valueblock_3/init_value
15. /modify/transponder/valueblock_3/autoinc
16. /modify/transponder/inc_value
17. /modify/transponder/password

For value description see Mifare.

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Overview of Legic Prime:

Transpondertyp : Legic Prime ▼

Ausweisnummer

☒ Unikatsnummer übernehmen. (Dec)

☐ Nicht segmentierte Karte lesen. (Hex)

☐ Segmentierte Karte lesen, Segment : (Hex) 1 ▼

Ausweisnummer zuschneiden

Adresse : Ab der angegebenen "Adresse" werden
"Anzahl" Byte gelesen.

Anzahl : Wichtig:
Pro Byte = 2 Hex - Zeichen als Feldwert.
max. 30 Byte = 60 Hex - Zeichen
Bei max. Ausnutzung kann der gelesene
Wert nur in eine GV geschrieben werden.

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Overview of MIFARE:

1. /modify/transponder/valueblock_1/segment
2. /modify/transponder/valueblock_1/block
3. /modify/transponder/valueblock_1/format
4. /modify/transponder/valueblock_1/position
5. /modify/transponder/valueblock_1/length
6. /modify/transponder/valueblock_1/init_value
7. /modify/transponder/valueblock_1/autoinc
8. /modify/transponder/inc_value
9. /modify/transponder/passwordgroup_1/modus
10. /modify/transponder/passwordgroup_1/key_a
11. /modify/transponder/passwordgroup_1/key_b
12. /modify/transponder/passwordgroup_2/modus
13. /modify/transponder/passwordgroup_2/key_a
14. /modify/transponder/passwordgroup_2/key_b
15. /modify/transponder/passwordgroup_3/modus
16. /modify/transponder/passwordgroup_3/key_a
17. /modify/transponder/passwordgroup_3/key_b
18. /modify/transponder/valueblock_1/serial_number

If **serial_number** (18) is set, **segment** (1) and **block** (2) must be set to 0

Siemens Infineon (default to use)

Modus (KeyA/KeyB): 1

KeyA: A0A1A2A3A4A5

KeyB: B0B1B2B3B4B5

Philips (default to use)

Modus (KeyA/KeyB): 1

KeyA: FFFFFFFFFFFFFFFF

KeyB: FFFFFFFFFFFFFFFF

/modify/transponder/password:

- Technic HITAG-2 must be set.
- Value must be Hexadecimal with max. 8 digits.

/modify/transponder/inc_value:

Value for increment

- Auto increment must be used.
- Only usable by HITAG-2, MIFARE

/modify/transponder/valueblock_1:

/modify/transponder/valueblock_2

/modify/transponder/valueblock_3

- Group of one value read from tag.

/modify/transponder/valueblock_1/bit:

- Only usable by EM4102

Value	Description
32	Read Value as 32bit integer
40	Read Value with 40bit

/modify/transponder/valueblock_1/segment:

- Only usable by HITAG-2 and MIFARE
- Range by HITAG-2 is 0, 4 – 7
- Range by MIFARE is 0 - 15

/modify/transponder/valueblock_2/segment:

/modify/transponder/valueblock_3/segment:

- Only usable by HITAG-2

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/modify/transponder/valueblock_1/block:

- Only usable by MIFARE
- Range is 0 - 2

/modify/transponder/valueblock_1/format:

- Range by EM4102 is 0, 1, 3
- HITAG-2 and MIFARE has full range.

Value	Description
0	Decimal with max 10 digits
1	Hexadezimal with max 8 digits
2	ASCII with max 4 characters
3	Turned Hexadezimal with max 8 digits

/modify/transponder/valueblock_2/format:

/modify/transponder/valueblock_3/format:

- Only usable by HITAG-2

/modify/transponder/valueblock_1/position:

- Only usable by MIFARE
- Range depends on chosen format

Used Format	Range	
0 (dec)	0, 4, 8, 12	boundary of read 32bit Value
1 (hex)	0, 4, 8, 12	boundary of read 32bit Value
2 (ascii)	0 – 14	Offset for text
3 (turned hex)	0, 4, 8, 12	boundary of read 32bit Value

/modify/transponder/valueblock_1/length:

- Only usable by HITAG-2 and MIFARE
- Range depends on chosen format and technic

Used Format	Description of Range
0 (dec)	Decimal with max 10 digits
1 (hex)	Hexadezimal with max 8 digits
2 (ascii)	ASCII with max 4 characters by HITAG-2 and 16 characters by MIFARE
3 (turned hex)	Turned Hexadezimal with max 8 digits

/modify/transponder/valueblock_2/length:

/modify/transponder/valueblock_3/length:

- Only usable by HITAG-2

/modify/transponder/valueblock_1/init_value:

- Only usable by HITAG-2 and MIFARE
- Range by HITAG-2 is 1 – 65535
- Range by MIFARE is 1 - 4294967295

/modify/transponder/valueblock_2/init_value:

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/modify/transponder/valueblock_3/init_value:

- Only usable by HITAG-2

/modify/transponder/valueblock_1/autoinc:

- Only usable by HITAG-2 and MIFARE
- Range 0 = off, and 1 = on

/modify/transponder/valueblock_2/autoinc:

/modify/transponder/valueblock_3/autoinc:

- Only usable by HITAG-2

/modify/transponder/passwordgroup_1

/modify/transponder/passwordgroup_2

/modify/transponder/passwordgroup_3

- Group of one Password-Group
- Only usable for MIFARE

/modify/transponder/passwordgroup_1/modus:

/modify/transponder/passwordgroup_2/modus

/modify/transponder/passwordgroup_3/modus

- Set use of passwords for read and write

Value	Read use password / Write use password
0	KeyA / KeyA
1	KeyA / KeyB
2	KeyB / KeyB

/modify/transponder/passwordgroup_1/key_a:

/modify/transponder/passwordgroup_2/key_a

/modify/transponder/passwordgroup_3/key_a

- set KeyA for the used group of password

/modify/transponder/passwordgroup_1/key_b:

/modify/transponder/passwordgroup_2/key_b

/modify/transponder/passwordgroup_3/key_b

- set KeyB for the used group of password

/modify/transponder/valueblock_1/serial_number:

- Only usable by MIFARE
- Range 0 = off, and 1 = on
- if "on" is used, **segment** and **block** must be set to 0

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Overview of iButton:

Transpondertyp :

Hinweis : Bitte beachten Sie, daß der iButton - Wert mit einer festen Stellenanzahl von 15 Ziffern geliefert wird.
Führende 0 - Ziffern werden nicht entfernt.

Overview of SimonsVoss Smartrelais G1 / G2:

Transpondertyp :

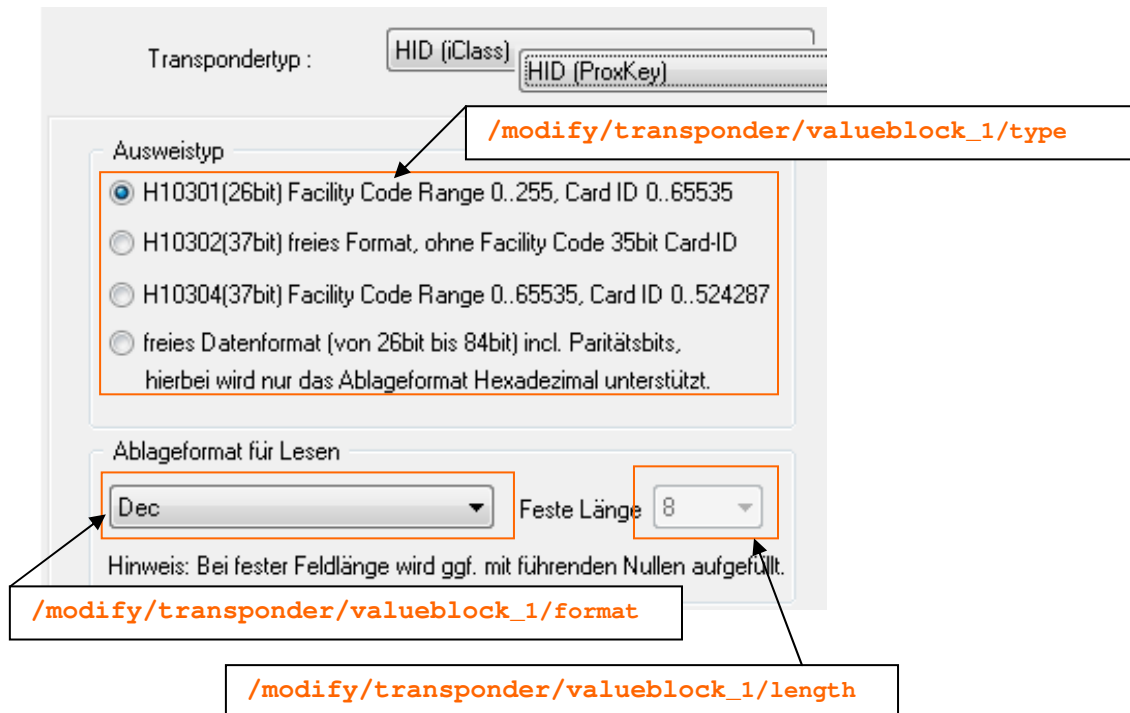
Es wird eine feste 10 stellige Zahl geliefert, ggf. mit führenden Nullen.

Overview of Nedap:

Transpondertyp :

Es wird ein maximal 10 stelliger Wert geliefert.

Overview of HID-iClass / HID-ProxKey:



/modify/transponder/valueblock_1/type:

- Range is 0 - 3

/modify/transponder/valueblock_1/format:

Value	Description
0	Decimal with max 11 digits
1	Hexadezimal with max 8 digits
3	Turned Hexadezimal with max 8 digits

/modify/transponder/valueblock_1/length:

- Range depends on chosen format and type.

Used Format	Description of Range
0 (dec)	Decimal with max 11 digits
1 (hex)	Hexadezimal with max. 24 digits = length 12
3 (turned hex)	Turned Hexadezimal with max. 6 digits = length 3, only by format = 3.

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Overview of ETSI:

Transpondertyp : ETSI Tags (865-867 MHz) ▼

Global **Standard**

Zu lesender Wert

TID / Bank	Adresse (hex)	Anzahl Byte	Passwort (hex)
TID ▼	<input type="text" value="0000"/>	4 ▼	<input type="text" value="00000000"/>

Wertformatierung

Ablageformat Hexadezimal ▼ Feste Länge 0 ▼

Hinweis: Bei fester Feldlänge wird ggf. mit Vornullen aufgefüllt.

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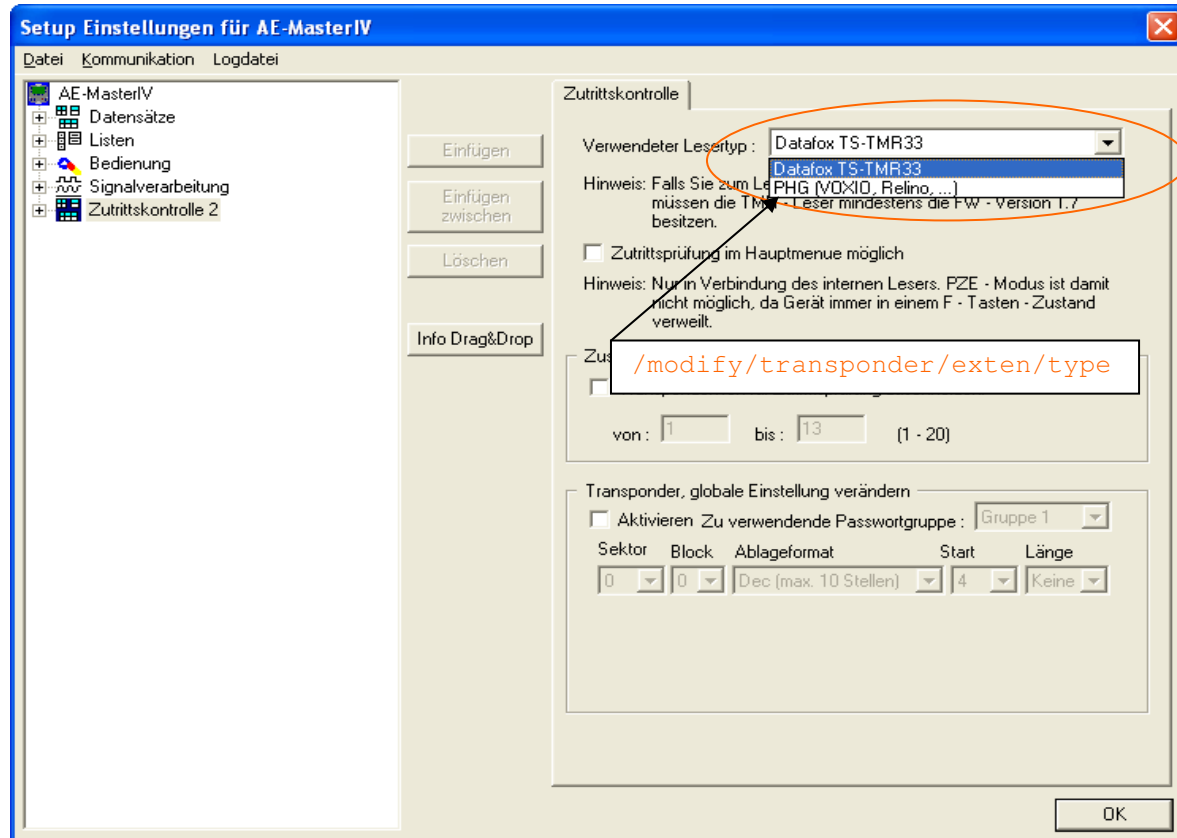
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Overview of External Reader

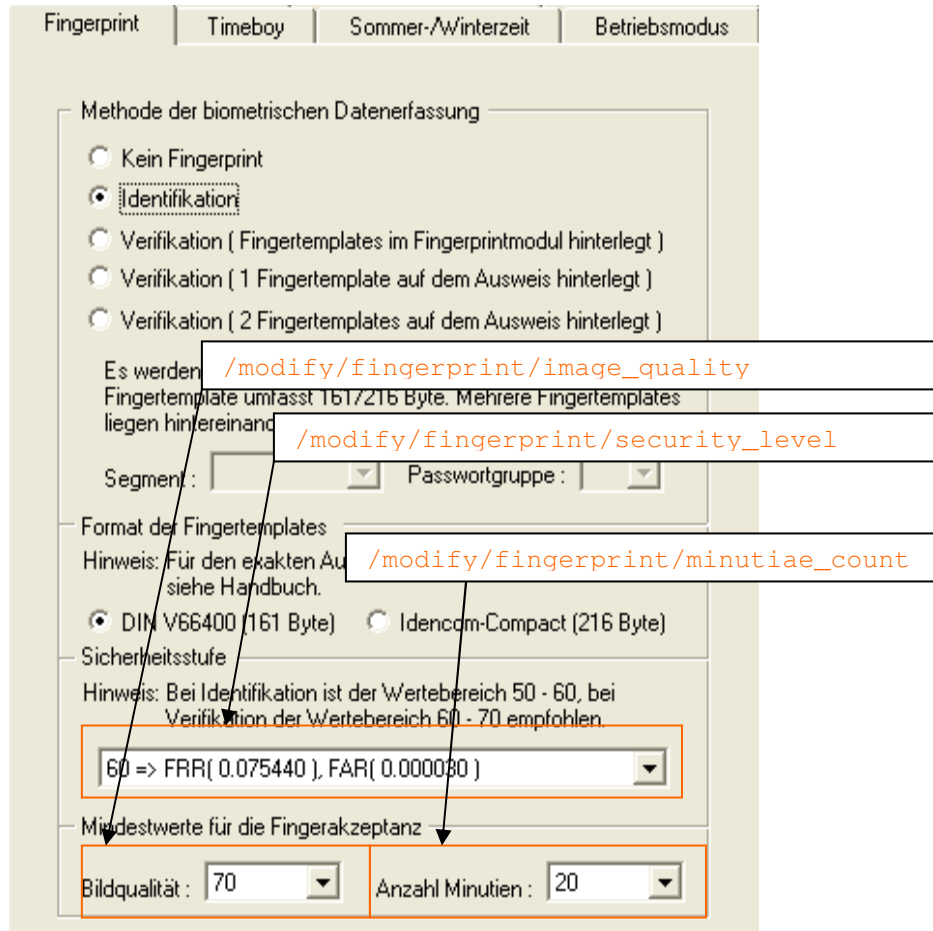


/modify/transponder/exten/type:

- Used type of reader for access control

Value	Description
0	Datafox TS-TMR33
2	PHG (VOXIO, Relino)

Overview of Fingerprint



/modify/fingerprint/security_level:

- Range 20 - 79

/modify/fingerprint/image_quality:

- Range 10 - 100

/modify/fingerprint/minutiae_count:

- Range 7 - 25

/modify/replace:

You can change passwords, parameter of fingerprint and replace text of menu, menu item, input chain, and input chain fields.