Modify DatafoxStudioFile with DLL-Function
Index :   V2.2   *Vom* : 18.11.2009
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This Document is an short description how you can modify our DatafoxStudioIV-File.

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

Declaration of Funktion:

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

Export:

_DFCModifyStudioFile@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 overritten 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.

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.

Data of xml:

```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>
```
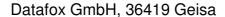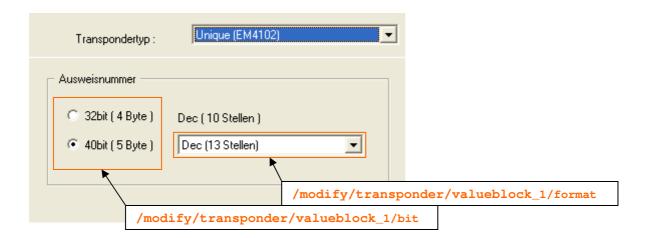
```
    </replace>
</modify>
```

Main-Tag is <modify>

/**modify**/**device**/**type:**

- PZE-MasterIV
- ZK-MasterIV
- BDE-MasterIV
- MOBIL-MasterIV
- MDE-MasterIV
- AE-MasterIV

/**modify**/**transponder**/**technic:**

Value	Description
EM4102	Unique
HITAG-2	Hitag2
MIFARE	Mifare

Overview of EM4102:

`/modify/transponder/valueblock_1/format`

`/modify/transponder/valueblock_1/bit`

Overview of HITAG-2:

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
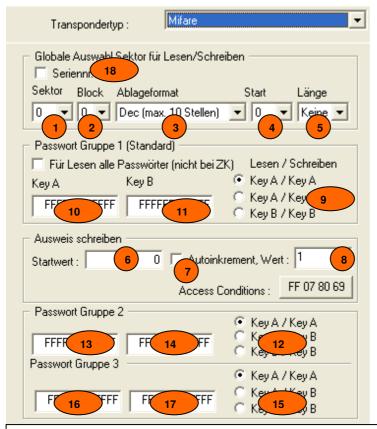16. /modify/transponder/inc_value
17. /modify/transponder/password

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: FFFFFFFFFFFF
KeyB: FFFFFFFFFFFF

/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/vallueblock_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

/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 an 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:

/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

Overview of External Reader
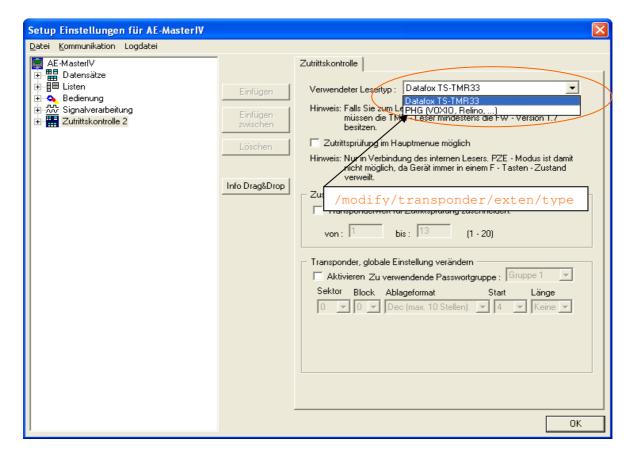

/**modify/transponder/extern/type:**

- Used type of reader for access control

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

Overview of Fignerprint

/**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.