uFR Advance Console Application Example 1.0

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Application preview

At the start of the application, user will be prompted two options for opening communication with the connected reader.

Option 1 - Simple reader open, will be using ReaderOpen() function from our uFR API. This allows automatic searching and connecting to any device of uFR series that is currently connected via USB cable.

Option 2 - Advanced reader open, will prompt further options for opening communication. User will be prompted to enter following parameters:

Reader type

Port name

Port interface

Additional argument

Further explanation on these parameters can be found in uFR series API which you can find and download from the following link:

https://www.d-logic.net/code/nfc-rfid-reader-sdk/ufr-doc.git

Main menu

Main menu of our application consists of following options:

```
+--------------------------------------------+
|       uFR Advance console example          |
|            version 1.0                     |
+--------------------------------------------+
                         For exit, hit ESC.
----------------------------------------------
(1) - Get card info
(2) - Get reader time
(3) - Set reader time
(4) - Reader EEPROM read
(5) - Reader EEPROM write
(6) - Change reader password
----------------------------------------------
```

On Windows, simply press 1 on your keyboard, or any other corresponding key, and application will proceed according to users selection.
As for Linux or MacOS platform, user will need to press 1 or any other corresponding key, and hit ENTER for the application to respond accordingly to users selection.
Pressing any other key than designated 1-6 keys, will prompt this Main menu screen with options.

(1) - Get card info

Simple function that shows us UID of the card currently present in readers NFC field:

```
----------------------------------------------
CARD UID -> C4:FC:FF:61
----------------------------------------------
```

(2) - Get reader time

Self-explanatory, this function returns 6 bytes array of uint8_t that represent current date and time in device's RTC.
If reading of readers time was successful, internal time should be displayed like this:

```
--------------------------------------------
Currently set reader time is:
Year   - 2019
Month  - 04
Day    - 13
Hour   - 15
Minute - 00
Second - 41
--------------------------------------------
```

(3) - Set reader time

In this case we have a choice of writing time into readers RTC by getting our current PC time and storing it, or entering time manually.

```
--------------------------------------------
Set reader time options:
   (1) - Set current PC time
   (2) - Set reader time manually
```

Depending on users choice, user will be prompted with further instructions and requests for additional parameters necessary for this function to work.
Readers password input is required for both of these options as means of authentication.

(4) - Reader EEPROM read

Function used for reading data stored in readers EEPROM. This function will return data read as an array. Maximum length of returned array can be 128 bytes.
User will be prompted to provide additional parameters on start of this function, such as starting address from which user wants to read EEPROM, and length of data or, in other words, number of bytes user wishes to read.

(5) - Reader EEPROM write

Function used for storing data in readers EEPROM. Principle of usage is same as previous function, with a difference that now user needs to provide data he wishes to write into reader as an additional parameter. User will be first prompted to enter address in EEPROM from which writing will occur, and then data that user wishes to write in readers EEPROM. Maximum length of data written at once can be 128 bytes.

(6) - Reader change password

Function used for changing readers password. Usage is simple: user needs to provide old password and the new one he wishes to input in reader, which will serve as authentication measure.

Revision history

Date	Version	Comment
2019-04-09	1.0	Base document