MiCard
Card Readers

Installation Guide

MiCard Version 1.2

English

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1 MiCard Versioning Information

Version:	1.2			
Date:	June 5, 2008			
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Author:	Claudia Kleinekemper			
Revision history:	Version:	Revision date:	Reviewer:	Final Review:
	1.0	23.08.2007	Michael Rosemann	Michael Rosemann
	1.1	23.01.2008	Michael Rosemann	Michael Rosemann
	1.2	06.06.2008	Michael Rosemann	Michael Rosemann
Technologies concerned:	uniFLOW OM Login Manager/MomClient (Secure/Public Printing Applet) v2.1.2			
File name:	MiCard®_installation_guide_EN.hmx			

Short Summary:

This manual describes the features and the installation of the MiCard® Readers.
MiCard® is a registered Trademark of NT-ware Systemprogrammierung GmbH

Update History:

V 1.1:

Added Firmware Update possibility for MiCard® which is available with uniFLOW OM Login Manager / MomClient (Secure/Public Printing Applet) v2.1.2

V 1.2:

Added MiCard® Magnetic Card Reader

2 MiCard Contactless Card Reader

MiCard® provides an easy to use, easy to install and cost effective solution for identification with a contactless card at your Canon iR. With MiCard® you simply wave your card over the reader and you will be identified. After identification the Canon iR opens up and you are able to make your copies or pick up your secure print jobs.

Installation and configuration has never been easier. You simply connect the MiCard® via USB directly to the device. Even power is supplied via USB, thus providing a cost effective solution by removing the expense normally required for an additional interface. After connecting MiCard® to the device, it will automatically be recognized and configured by the in the Canon iR integrated uniFLOW MEAP application.

There are many different technologies for Radio Frequency Identification (RFID) on the market. Therefore, for additional flexibility, MiCard® Contactless Card Reader is available in 3 different versions, MiCard® HiTag, MiCard® Legic/MiFare, and MiCard® HID Prox, all supporting different RFID frequencies and technologies.

The uniFLOW MEAP application embedded in the Canon iR will also make your life in the office easier. You can use it for printing confidential information securely. Simply select the print job you want to print directly from the control panel of the Canon iR, without the risk of interception by others.

Additionally it can be used for charging back copy jobs to cost centers, departments or customers, printing of general/internal company documents, or the authentication into other applications like for instance eCopy.

2.1   Scope of supply

The MiCard® reader package consists of the MiCard® Reader itself and the appertaining connection cable.

2.2   Requirements

Rated Voltage: 5 V $=\!=\!=$

USB 1.1 Full Speed

Ambient temperature 0 … +50 °C

Canon iR:

- has to be MEAP enabled

- USB Application Interface board of the respective iR

- uniFLOW OM Login Manager/MomClient (Secure/Public Printing Applet) v2.1.0

uniFLOW OM:

- uniFLOW OM/RPS v3.1 required /
  uniFLOW OM / RPS v3.1.1. recommended

Important Note:

Changes and/or modifications of the MiCard® not approved by NT-ware Systemprogrammierung GmbH will void the user's authority to operate the MiCard®.

FCC Compliance Note:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.

- Increase the separation between the equipment and receiver.

- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

- Consult the dealer or an experienced radio/TV technician for help.

FCC Compliance Note for Canada:

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

2.3 System Setup

- Ensure the MFP is equipped with the USB Application Board.

- The uniFLOW OM Login Manager and / or MomClient (Secure/Public Printing Applet) v2.1.0 should be installed and running on the MFP. For installation of the Login Manager and the uniFLOW OM MEAP Applets please see the uniFLOW OM User Manual.

- Connect the MiCard® reader to the USB Host Connection of the MFP (See photo below. Please be aware that the arrangement of the USB connection may vary depending on the model of the copier).

The power supply for the MiCard® reader is effected via the USB connection.

- The MiCard® beeps twice and the red and green LED flash twice when being connected.

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2.4　LED Status

The MiCard® readers are equipped with 3 status LEDs: green (left hand), yellow (middle) and red (right hand). The table below shows the status information given by the respective LED.

Status	Green LED	Yellow LED	Red LED
Booting up	flashing		flashing
Not synchronized			flashing
Synchronized (operating)		flashing	
Authentication OK	on	flashing	
Authentication failed		flashing	on
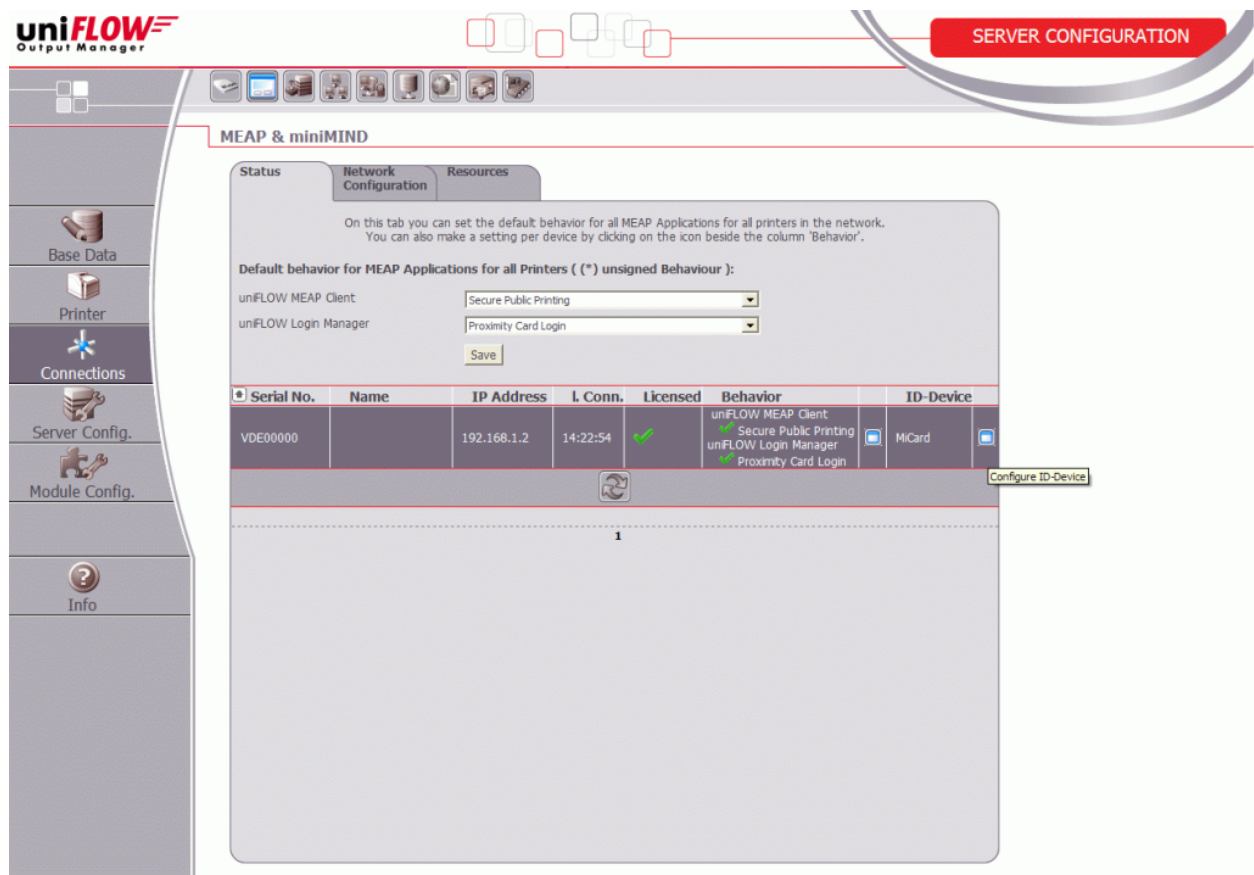
2.5 Configuration

The MiCard® device is working without further configuration; however some "advanced" options are available.

When using uniFLOW OM v3.1.1 you can see the connected MiCard® readers on the **MEAP/miniMIND Status** tab of the main menu **Connections**.

By clicking on 🔲 in the **ID Device** column a new window opens showing the advanced options. When using uniFLOW OM v3.1 you won't see the connected MiCard® readers in the status overview, but you can open the configuration page using this URL:

http://<MFP-IP>:8000/usbidmodule/base.htm

The Configuration page will look like in the screenshot below.
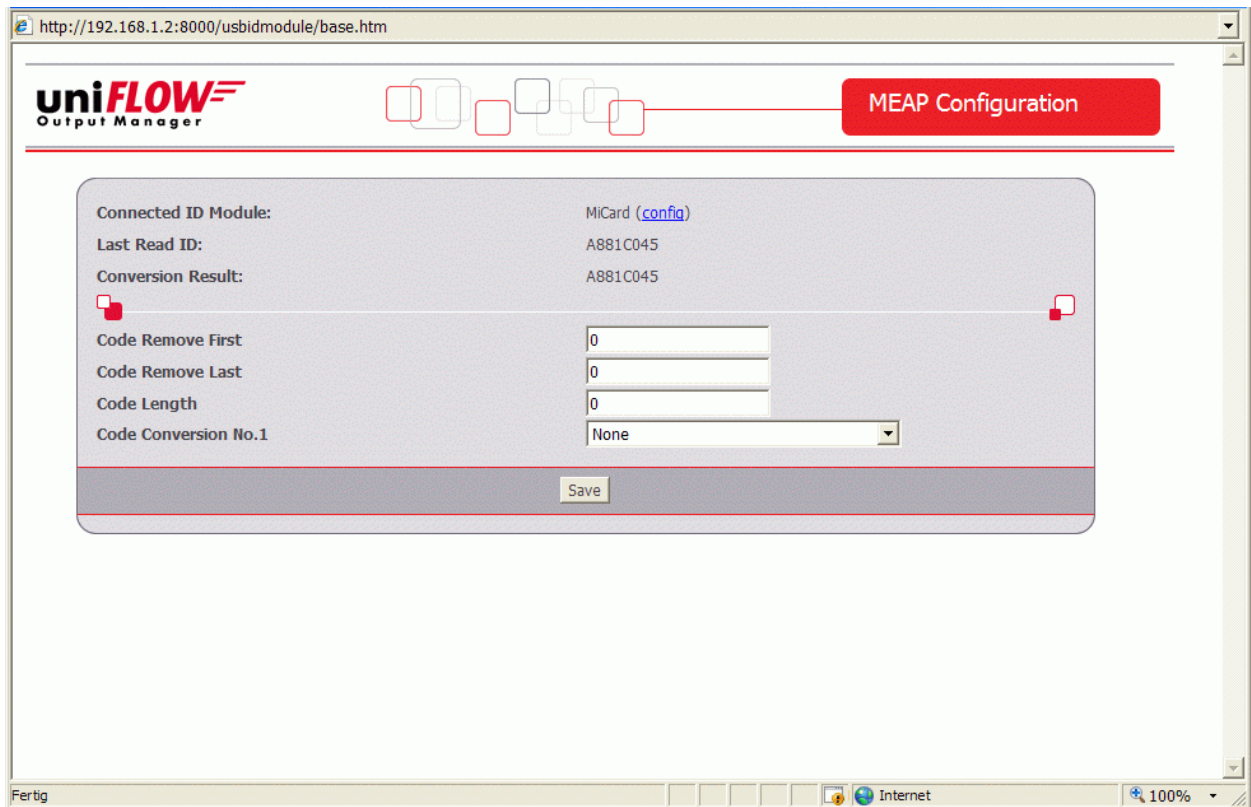
In the following please find an explanation of the terms used and the possible settings on the configuration site:

Connected ID Module

shows the ID Module connected, e.g. MiCard® / miniMIND

Last Read ID

shows the last ID read by a card swipe

Conversion Result

shows the result of the last read ID when the configured code conversions are applied. This is the ID sent to the server for authentication.

Code Remove First

specifies the number of characters to be removed from the ID read before the code conversion takes place. For instance a value of 3 applied to A881C045 will result in 1C045.

Code Remove Last

specifies the number of characters to be removed at the end of the ID read before the code conversion takes place. For instance a value of 3 applied to A881C045 will result in A881C.

Code Length

specifies the code length applied after the code conversion. For instance a value of 6 applied to A881C045 will result in A881C0, whereas a value of 10 applied to A881C045 will result in 00A881C045.
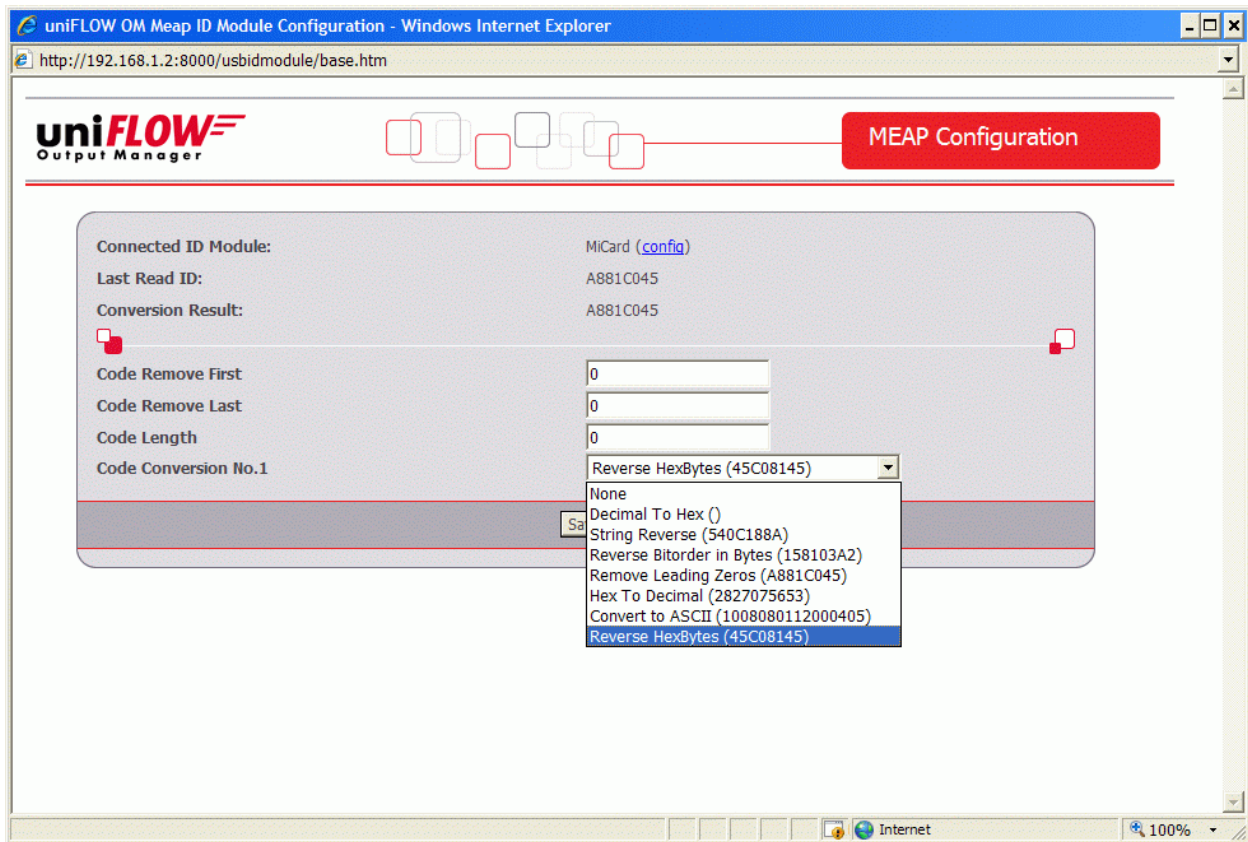

Code Conversion No. [N]

specifies the code conversion that has to be applied to the ID read in a series of code conversions at step [N]. The result of the code conversions at step [N] is displayed next to the name of the code conversion in the drop down list. If the result is empty "()", this code conversion can't be applied in the actual step (cf. screenshot above).
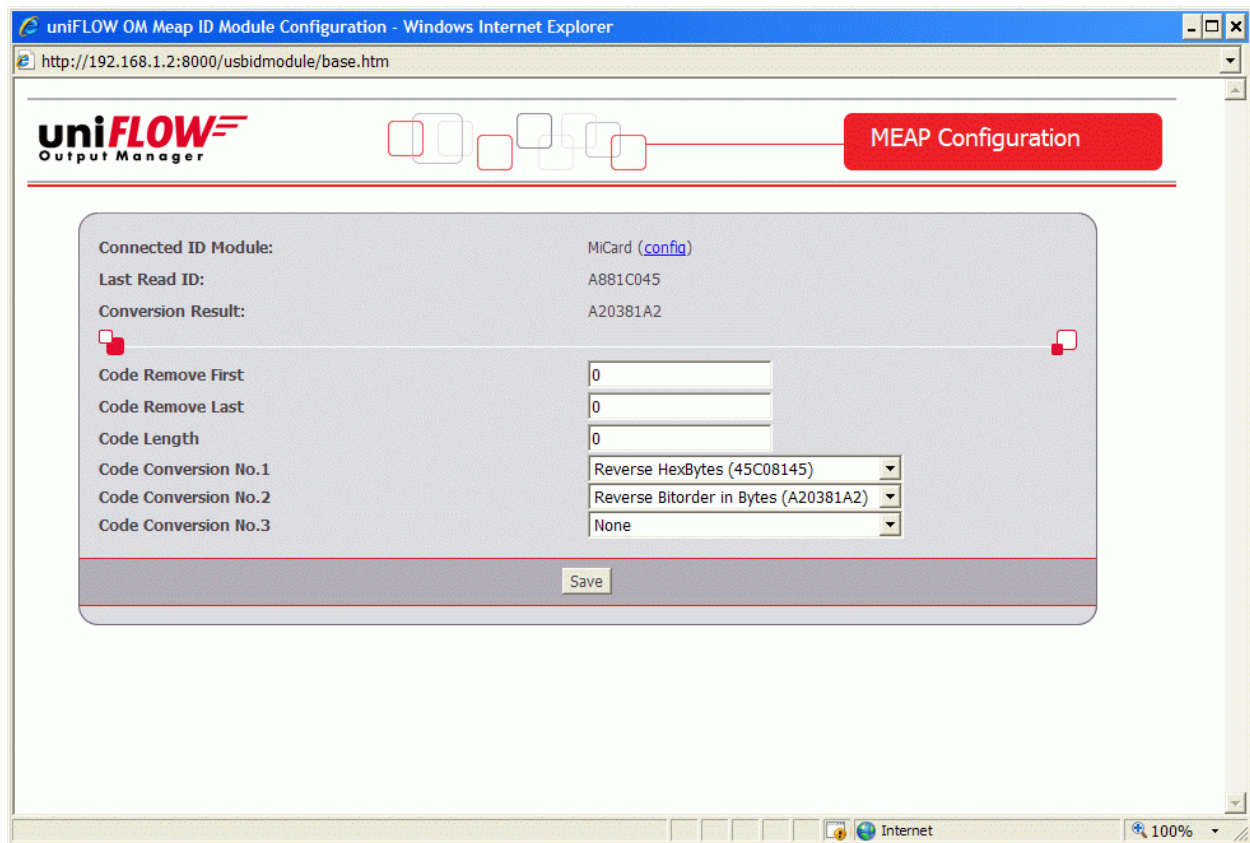
After a code conversion step [N] is saved by clicking the **Save** button the configuration page will allow to specify code conversion step [N+1] as shown in the screenshot above.

Next to the name of the **Connected ID Module** in the configuration page (MiCard®) you can click on a link **(config)** which will bring up the page shown below.
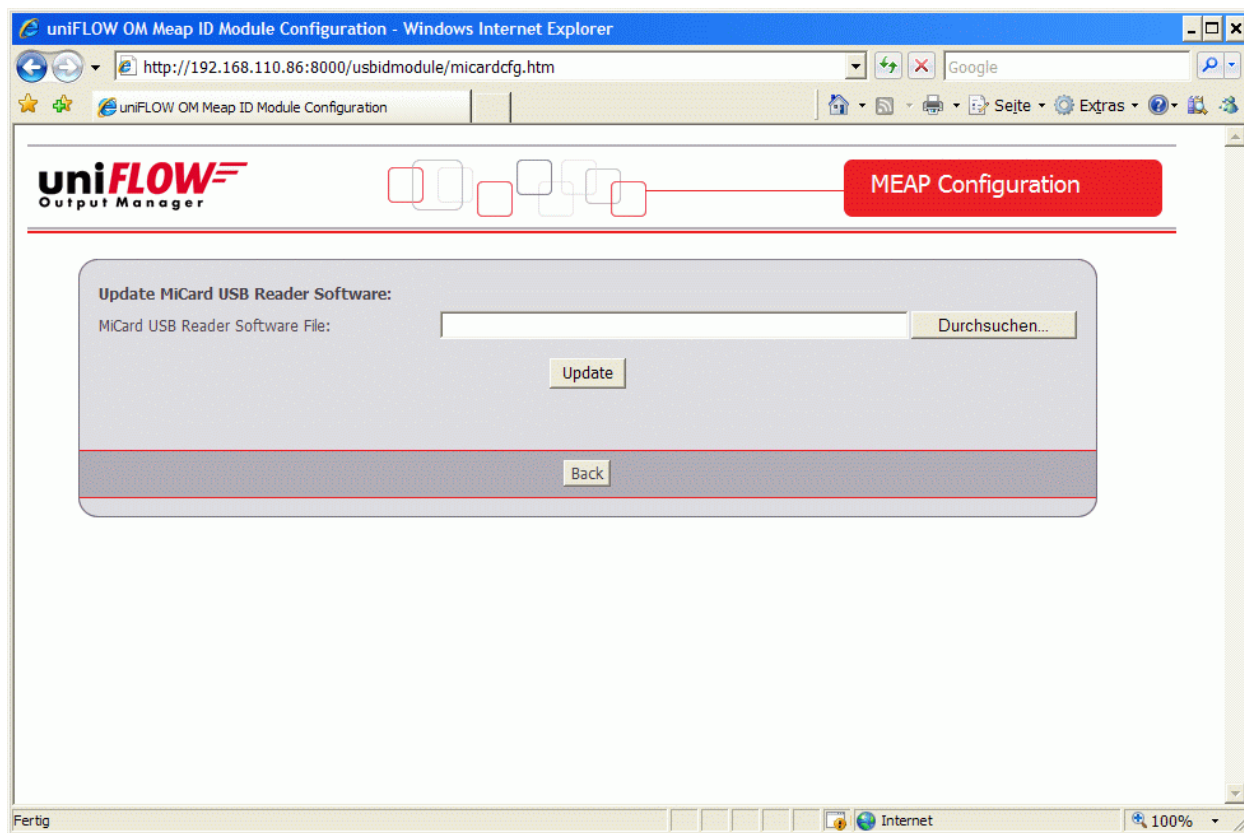

With uniFLOW OM Login Manager / MomClient (Secure/Public Printing Applet) v2.1.2 the update of the MiCard® Firmware is possible via this configuration page. A Firmware update file can be requested from our support department (Email: Support@nt-ware.com).

To upload the new Firmware browse for the file and click on *Update*.

If the file is not a valid MiCard® Firmware File, you will be presented with the following message:
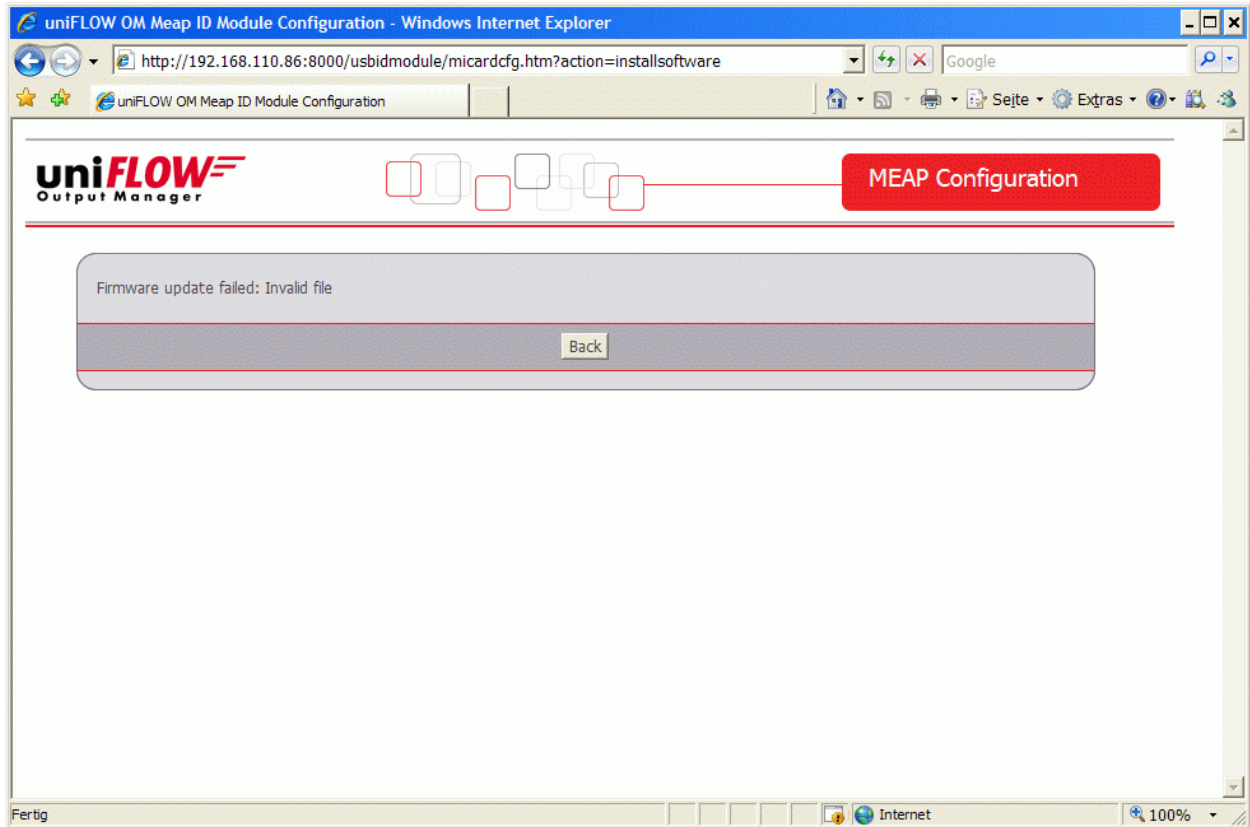
In the case of a valid MiCard® Firmware file the upload will be started and you will be informed about the upload progress via a progress bar.
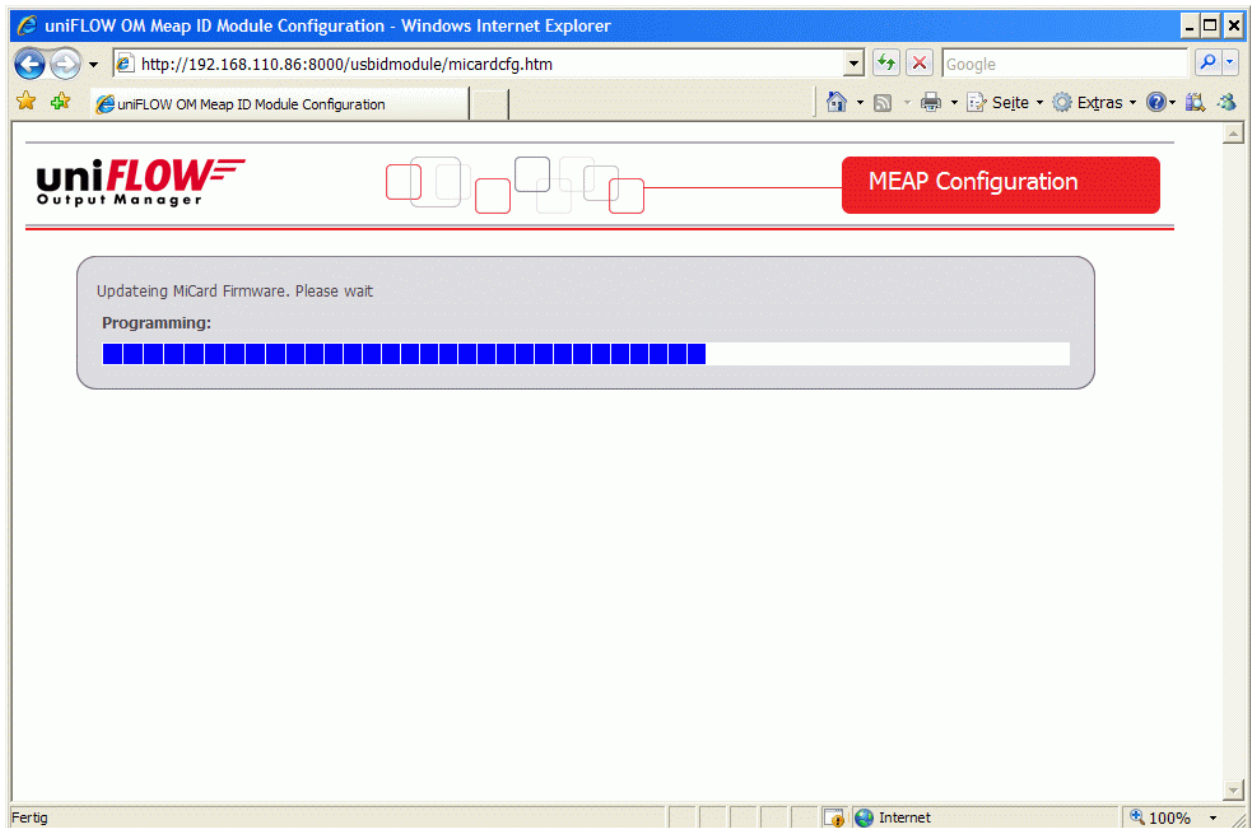
Once the upload is completed, the MiCard® is automatically rebooted with the new Firmware. A device restart is not necessary.

If the update fails the MiCard® will start in a "Bootloader" mode that allows updating the Firmware again, but has no card reading functionality.

3 MiCard Magnetic Card Reader

To enhance the field of use for the MiCard® Card Reader, the MiCard® Magnetic Card Reader has been developed. As the name already implies the MiCard® Magnetic Card Reader allows a magnetic card identification at the printer using the MiCard® Reader.

With the Magnetic Card Reader it is possible to read out either track 1, 2 or 3 of magnetic stripe information and use the content of the read-out track for identification.

This document describes only the points of the installation and configuration of the MiCard® Magnetic Card Reader where it differs from the information given in the MiCard® Contactless Card Reader [2] chapter.

3.1 Technical Specifications

Usage	Swiping magnetic cards
Standard input	Reading track 1- 3 from magnetic cards
Power Supply USB port	5 Volt
Dimensions (h x l x d)	28 x 32 x 90 mm
Weight	132 grams
Set parts	1 x Magnetic Card Reader with firmly attached cable

3.2 Requirements for magnetic cards

Rating: 5 V $=\!=\!=$

USB 1.1 Full Speed

Ambient temperature 0 … +50 ° C

Canon iR

- has to be MEAP enabled

- USB Application Interface board of the respective iR

- uniFLOW OM Login Manager/MomClient (Secure/Public Printing Applet) v2.1.3

uniFLOW OM:

- uniFLOW OM / RPS v3.1 required /
  uniFLOW OM / RPS v3.1.1. recommended

3.3 System Setup for MiCard Magnetic Card Reader

- Connect the Magnetic Card Reader to the USB Host Connection of the MFP (See photo below. Please be aware that the order of the USB connection may vary depending on the model of the copier).

The power supply for the MiCard® reader is provided via the USB connection.

- A proper USB connection and a sufficient power supply of the MiCard® Magnetic Card Reader is indicated by a lighted LED and a beep.

3.4 How to read Magnetic Cards

- To read a card swipe it through the reader slot in either direction, with the magnetic stripe facing the magnetic head.

- While swiping the card through the reader slot, the LED will go off.

- Once the magnetic stripe has been read, the LED will light up green to indicate a good reading result. If no good result has been obtained, the LED will light up red.

- As already indicated above, you can read out either track 1, 2 or 3 of a magnetic stripe. When a track is read out successfully, the reader beeps.

3.5 Configuration

Please see MiCard® Contactless Card Reader Configuration Chapter 6 *!*

Deviating from the configuration described in the *MiCard® Contactless Card Reader Configuration Chapter* the status site under **Server Configuration/Connections/MEAP & miniMIND** will show the default behaviour **Magnetic Card Login**.

By clicking on ⬜ in the **ID Device** column a new window opens showing the configuration page for the selected MiCard® Magnetic Card Reader.
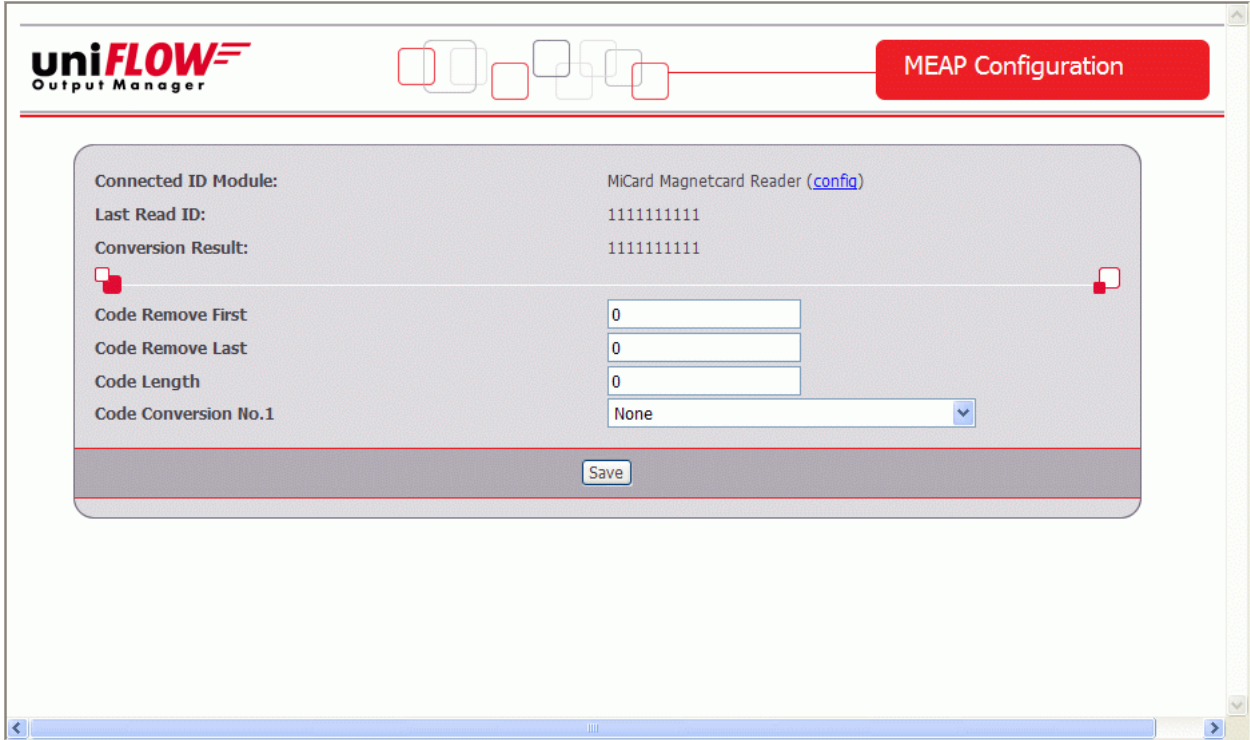
Via the **config link** at the end of the line, next to **Connected ID Module** you will get to another configuration window where you can additionally specify, which of the three tracks of the magnetic stripe you would like to use for identification. The desired track can be selected from the drop-down list box next to **Use Card Track**.
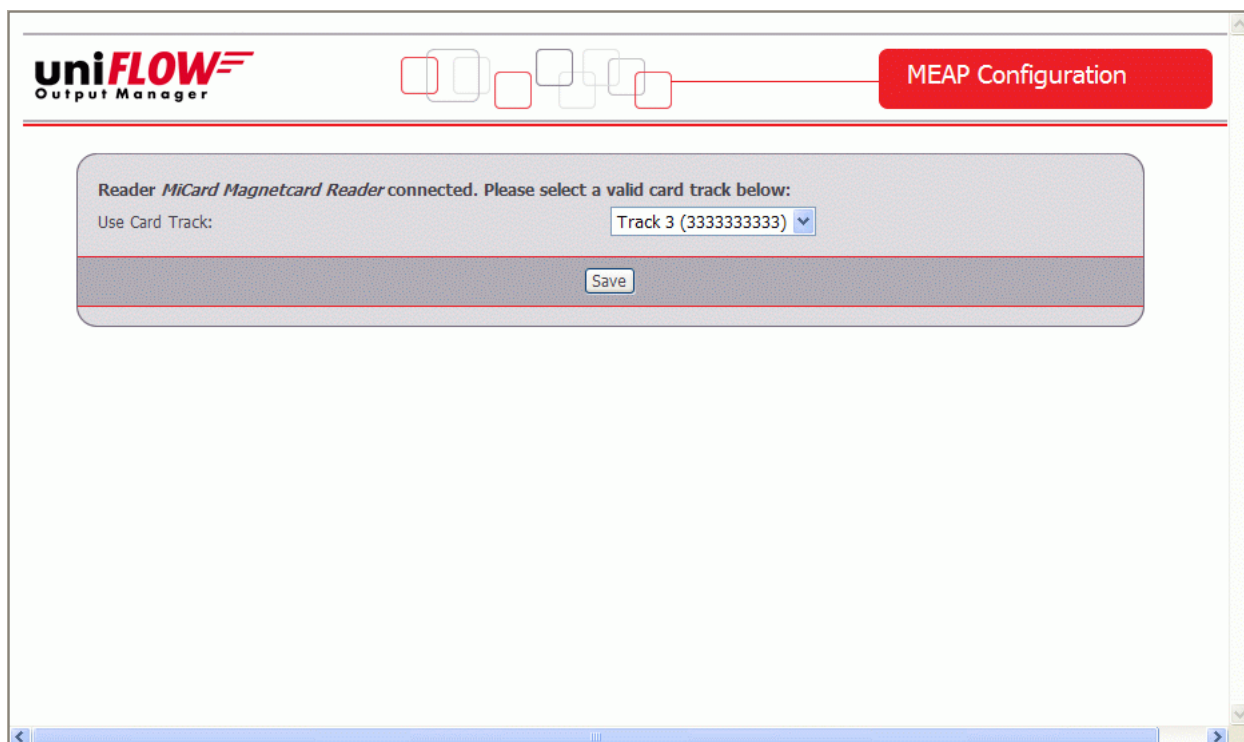
For more information on the possible code conversion / configuration settings please refer to the MiCard® Contactless Card Reader Configuration Chapter 6.