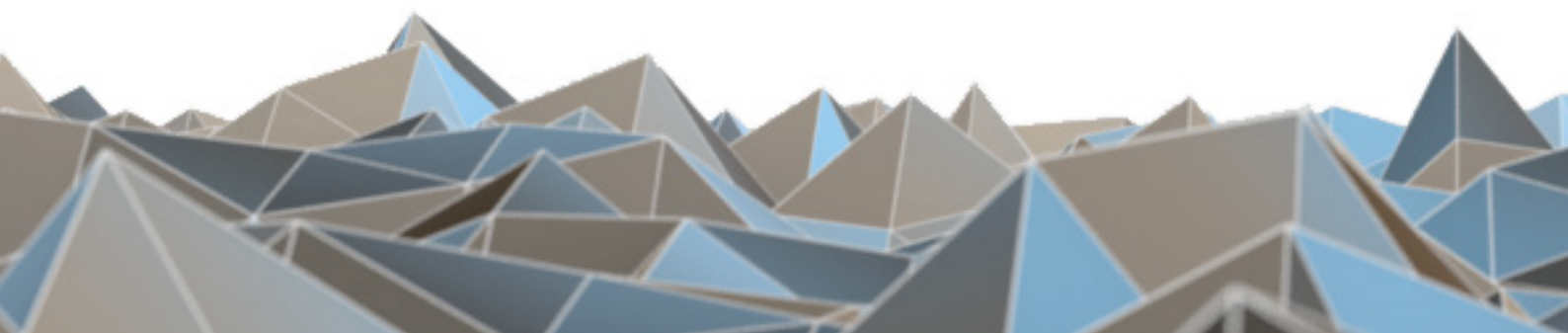


BLUETECHNIX
Embedding Ideas

NFC Adapter

Quick Start Guide

Version 1





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NFC-Adapter – Quick Start Guide

Document No.: 900-308 / B

Publication date: June 12, 2013

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The information herein is given to describe certain components and shall not be considered as a guarantee of characteristics.

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Bluetechnix takes no liability for any damages and errors causing of the usage of this board. The user of this board is responsible by himself for the functionality of his application. He is allowed to use the board only if he has the qualification. More information is found in the General Terms and Conditions (AGB).

Information

For further information on technology, delivery terms and conditions and prices please contact Bluetechnix (<http://www.bluetechnix.com>).

Warning

Due to technical requirements components may contain dangerous substances.

1 General Information

This guide applies to all smart cameras based on the Argos® smart camera platform from Bluetechnix GmbH. Follow this guide chapter by chapter to set up and understand your product. If a section of this document only applies to certain camera models, this is indicated at the beginning of the respective section.

1.1 Symbols Used

This guide makes use of a few symbols and conventions:



Warning

Indicates a situation which, if not avoided, could result in minor or moderate injury and/or property damage or damage to the device.



Caution

Indicates a situation which, if not avoided, may result in minor damage to the device, in malfunction of the device or in data loss.



Note

Notes provide information on special issues related to the device or provide information that will make operation of the device easier.


Procedures

A procedure always starts with an headline

1. The number indicates the step number of a certain procedure you are expected to follow. Steps are numbered sequentially.

This sign ► indicates an expected result of your action.

References

 This symbol indicates a cross reference to a different chapter of this manual or to an external document.

2 Overview

Dear Customer,

Thank you very much for purchasing this NFC product. Please read this manual carefully before installation and follow the instructions to get the optimal performance.

2.1 Starting up

Unpack the NFC Adapter and remove the USB-protecting cap to reveal the USB plug. Now insert the dongle into a free USB port of your computer.

For a correct identification of the NFC Adapter please install the driver for the USB to UART converter CP2104.

<http://www.silabs.com/products/mcu/Pages/USBtoUARTBridgeVCPDrivers.aspx>

2.2 Usage

NFC Adapter is a NFC device which is equipped with a chip of the type NXP PN532 and can only be used with appropriate software.

2.3 For developers

If you would like to use this product for developing your own software it is strongly recommended to use a NFC Stack e.g. NFCStack+ from Stollmann / www.stollmann.de

2.4 Safety instructions and warranty



Note

Please keep this manual for future use. Make yourself familiar with the functionality and features of this product.

With the purchase of this product you receive a warranty of 2 years in the case the product fails under appropriate use. Please note that you are bound by the General Terms and Conditions, too.



Caution

Use this product in an appropriate way only. Otherwise damage may occur. Reconstruction or modification of this product is prohibited. Damage or injuries caused by such modifications lead to the expiration of any warranty claims.
Do not open or repair the product yourself.
Do not open or repair the product yourself.
Pay attention to careful usage of the product. Damage may occur in the case of mechanical stress.
Do not expose the product to moisture or extreme heat.



Caution

Modifications not authorized by the manufacturer may void user's authority to operate this device.

No warranty is given for damage resulting from improper and inappropriate use.

This warranty does not cover incidental and consequential damages caused by the product.

Technical data are subject to change without notice.

Errors and omissions excepted.



3 Declaration of Conformity

3.1 CE Declaration

CARDOLUTION HANDELS GMBH hereby declares that this Cardabra Stick Pro product is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

<http://www.cardolution.com/cardabrastickpro>



3.2 FCC Declaration

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

<http://www.cardolution.com/cardabrastickpro>



FCC ID: ARHCSP90921451
Trade Name: Cardolution Handels GmbH
Model: Cardabra Stick Pro



4 Software Installation

4.1 NFC Suite lite

1. Download the newest Version of the Bluetechnix NFC Suite lite from the [Bluetechnix homepage](#).
 - a. https://support.bluetechnix.at/downloads/NFCSuiteLite_PcSoftware_V1.0.0.zip
2. Extract the zip file.
3. Start the setup.exe and follow the installation instructions.

4.2 Drivers

For a correct identification of the NFC Adapter please install the driver for the USB to UART converter CP2104.

<http://www.silabs.com/products/mcu/Pages/USBtoUARTBridgeVCPDrivers.aspx>



5 Hardware Installation

Unpack the NFC Adapter and remove the USB-protecting cap to reveal the USB plug. Now insert the dongle into a free USB port of your computer.



6 Getting Started

6.1 NFC Suite lite

Insert the NFC Adapter into a free USB port of your computer and start the NFC Suite lite.

6.1.1 Read

The NFC Suite lite includes four read actions, see Figure 6.1.1. Select one or more read actions by clicking on it. Place a NFC card in a close range to the NFC Adapter to execute the actions.

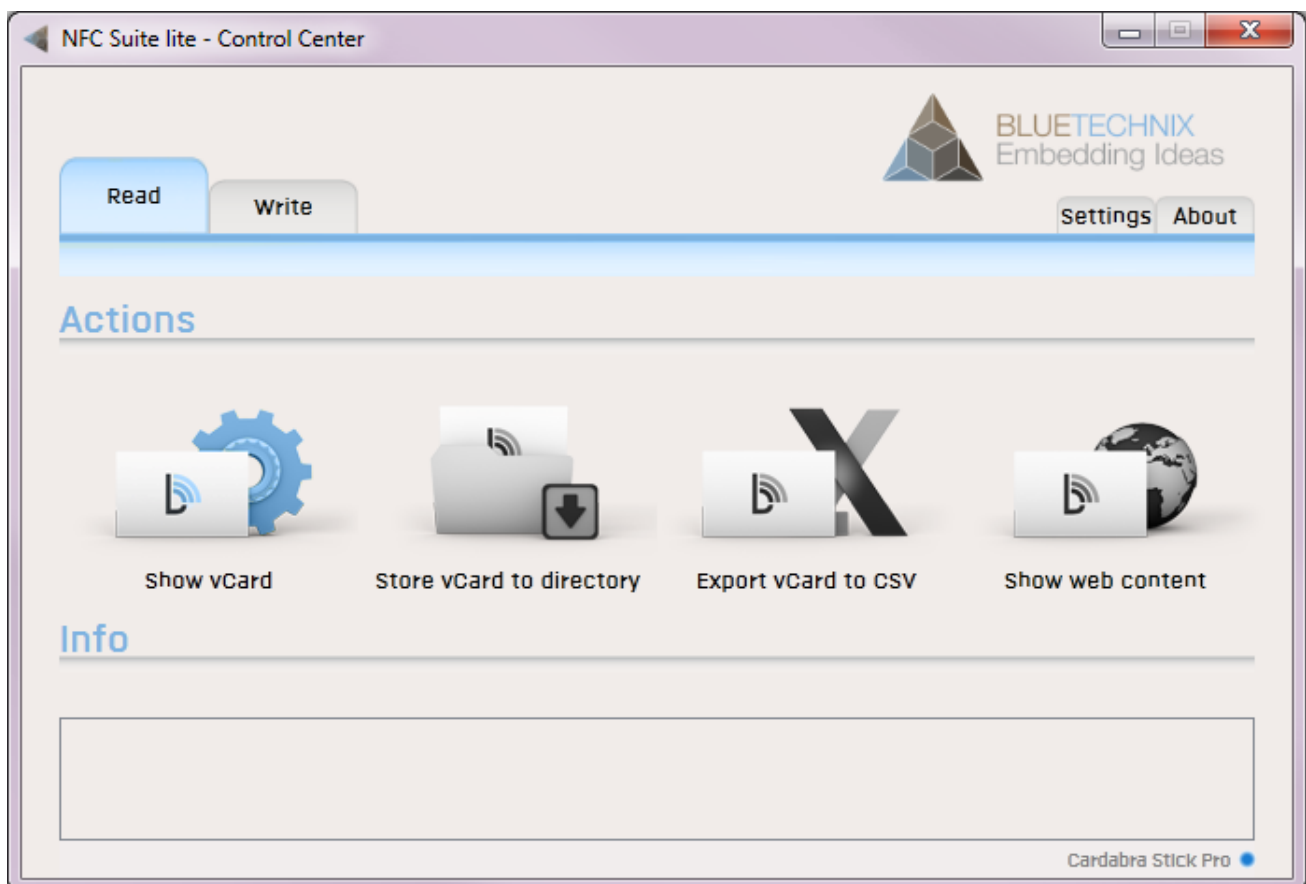


Figure 6.1: Read a NFC card

6.1.2 Write

Select a vCard file or an Internet Shortcut which you want to write to the NFC tag. Click on the “write to NFC tag” symbol, see Figure 6.1.2, and Place a NFC card in a close range to the NFC Adapter write to the NFC tag.

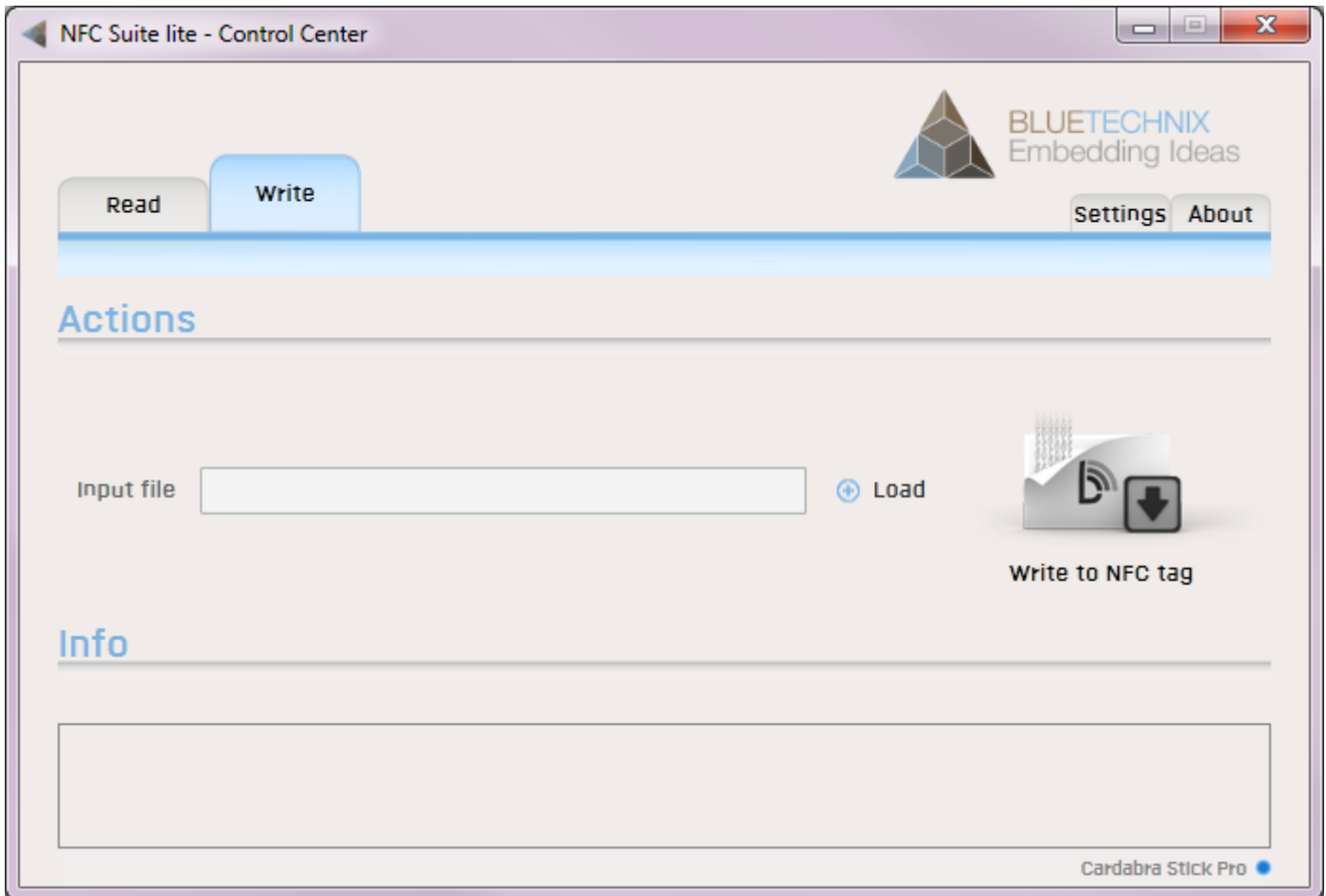


Figure 6.2: Write a NFC card



7 Specifications

7.1 Electrical Specifications

7.1.1 Operating Conditions

Symbol	Parameter	Min	Typical	Max ¹	Unit
V _{IN}	Input supply voltage	4.5	5	5.5	V

Table 7.1: Electrical characteristics

7.1.2 Maximum Ratings

Stressing the device above the rating listed in the absolute maximum ratings table may cause permanent damage to the device. These are stress ratings only. Operation of the device at these or any other conditions greater than those indicated in the operating sections of this specification is not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

Symbol	Parameter	Min	Max	Unit
V _{IN}	Input supply voltage	4.3	7	V
T _{STO}	Storage temperature	-55	150	°C
T _{OP}	Operating temperature	0	70	°C
Φ _{AMB}	Relative ambient humidity		90	%

Table 7.2: Absolute maximum ratings

7.1.3 ESD Sensitivity



ESD (electrostatic discharge) sensitive device. Charged devices and circuit boards can discharge without detection. Although this product features patented or proprietary protection circuitry, damage may occur on devices subjected to high energy ESD. Therefore, proper ESD precautions should be taken to avoid performance degradation or loss of functionality.



8 Product History

8.1 Version Information

8.1.1 NFC Adapter

Version	Date	Type
1.0.0		First release of the hardware.

Table 8.1: Overview NFC Adapter product changes

8.2 Anomalies

Version	Date	Description
V1.0.0	2013 04 10	No anomalies reported yet.

Table 8.2 – Product anomalies



9 Software History

9.1 Version Information

9.1.1 NFC Suite lite

Version	Release Date	Changes
1.0.	2013 04 06	No changes.

Table 9.1: Overview of NFC Suite lite

9.2 Anomalies

Version	Date	Description
V1.0	2013 04 10	No anomalies reported yet.

Table 9.2 – Product anomalies



10 Document Revision History

Version	Date	Document Revision
1	2013 04 10	First release V1.0 of the Document

Table 7.1: Revision history



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