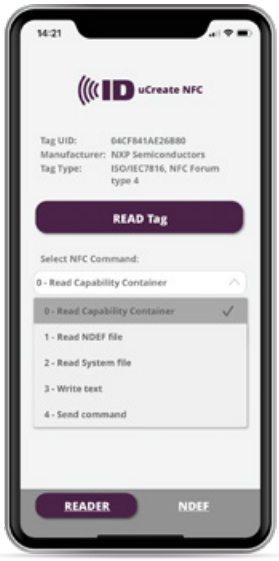
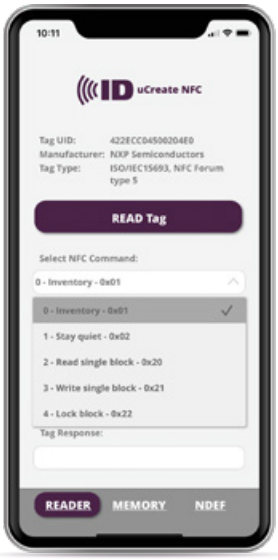
uCreate NFC App How to Use Guide

The uCreate NFC App is available for Android and iOS.

The following screenshots show the app via iOS.



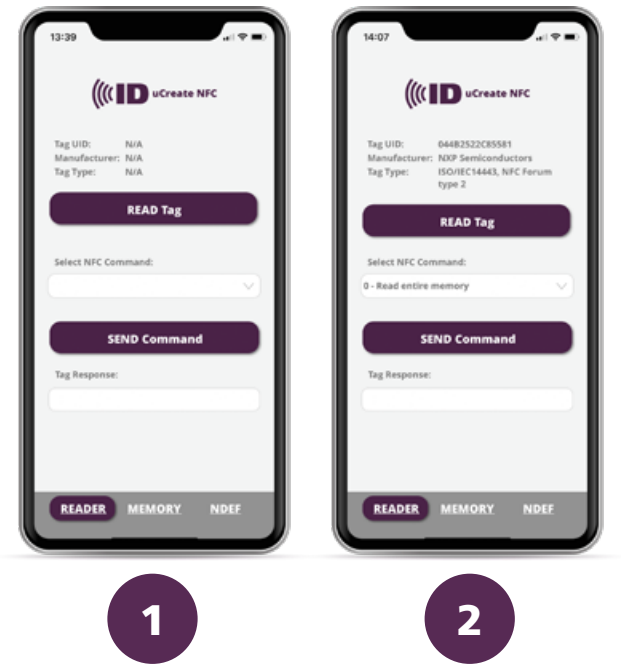


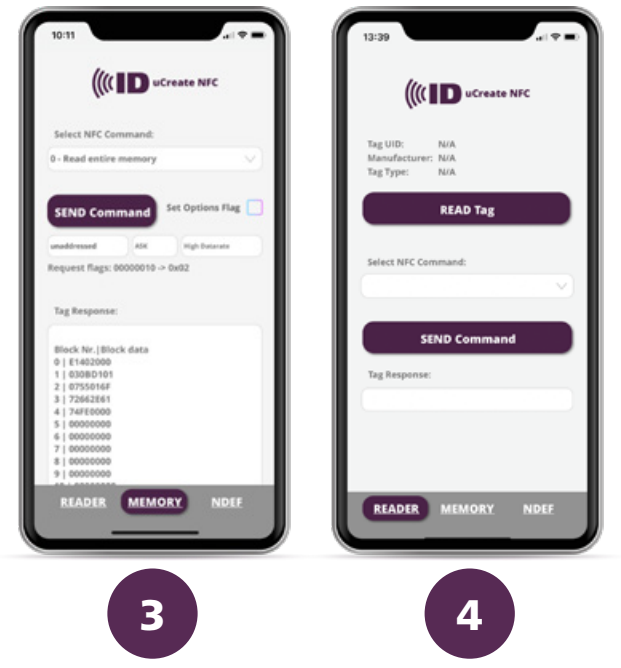
NFC Forum Type Detection, Displayed Information, and Available Commands

The SDK supports NFC Forum tag types 2, 4, and 5. After reading and decoding the type of NFC tag in the radio frequency field, different tag and standard-specific commands are available.

Scrolling down the command window reveals all implemented commands.

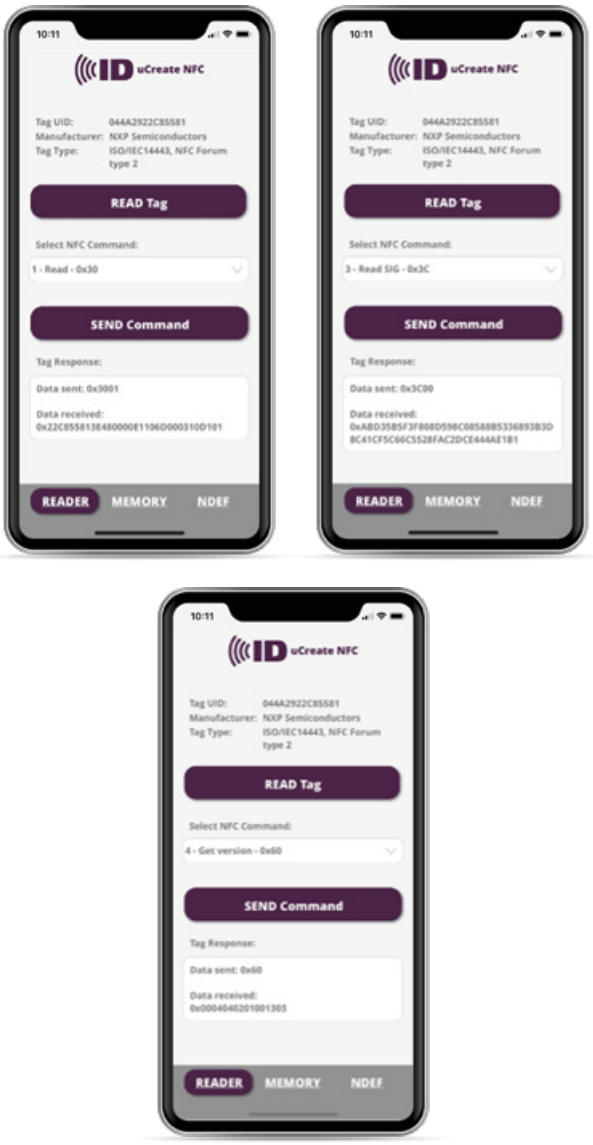
Please note: The memory tab is not available for NFC Forum type 4 tags due to different memory plots of the available type 4 tag ICs.





NXP NTAG®216 // NFC Forum Tag Type 2 // ISO/IEC 14443

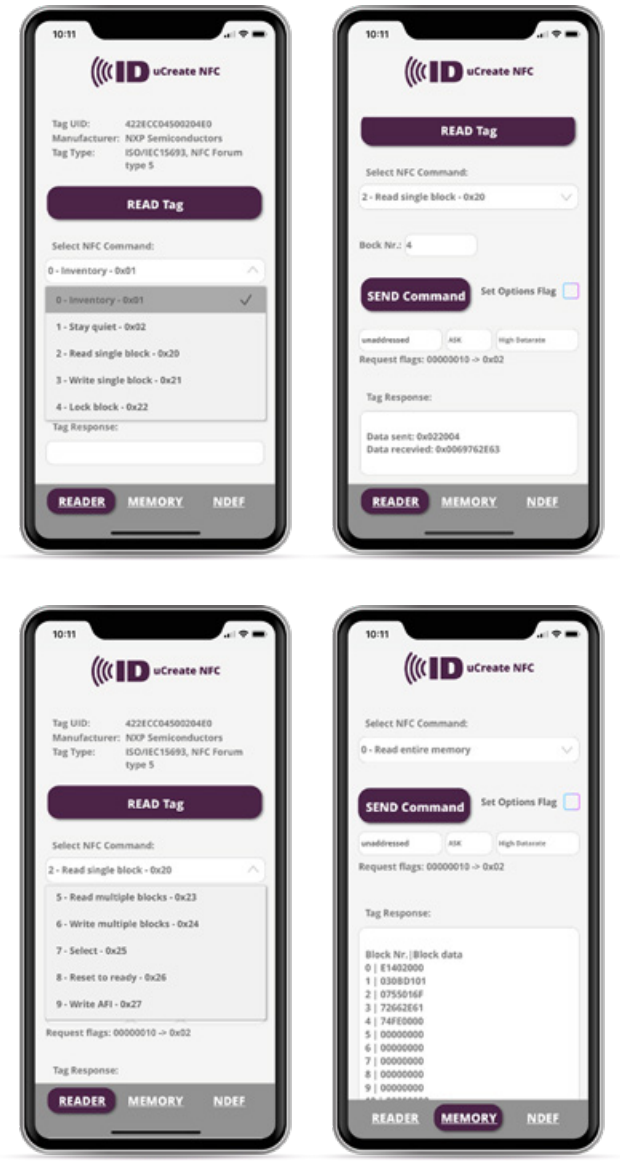
- Start screen of the app
  - Selected tab/mode is Reader
  - No NFC tag has been read yet
  - Bring supported NFC tag in proximity of the antenna of the NFC-enabled mobile device and press the READ Tag button
- Basic NFC tag information like the unique identifier (UID) manufacturer and NFC Forum type are displayed after the tag has been read. Depending on the discovered NFC tag type and its capabilities, different commands can be selected and sent to the tag as shown.
- For detailed information on the different tags, their capabilities, and specific commands, please consult the respective NFC tag datasheets and the source code of this SDK
  - Command 0 - Read entire memory selected and executed
- Tab Memory selected
- Memory blocks and their content (data) is displayed. App allows you to scroll down to display all read memory blocks.
- Note: The Memory tab can be selected right after the app has been started but as no tag has been read yet, there are no commands which can be selected and executed.
- Available commands
  - Read entire memory
  - Read from block address
  - Write to block address
  - Read SIG (originality signature)
  - Get Version (determines NTAG IC)
  - Send command



NXP NTAG216

Read, Read Signature, and Get Version Command Execution

To see all implemented commands and usage, please test uCreate NFC SDK, look into the provided source code, and consult the respective NFC tag data sheets.



NXP ICODE® SLIX // NFC Forum Tag Type 5 // ISO/IEC 15693

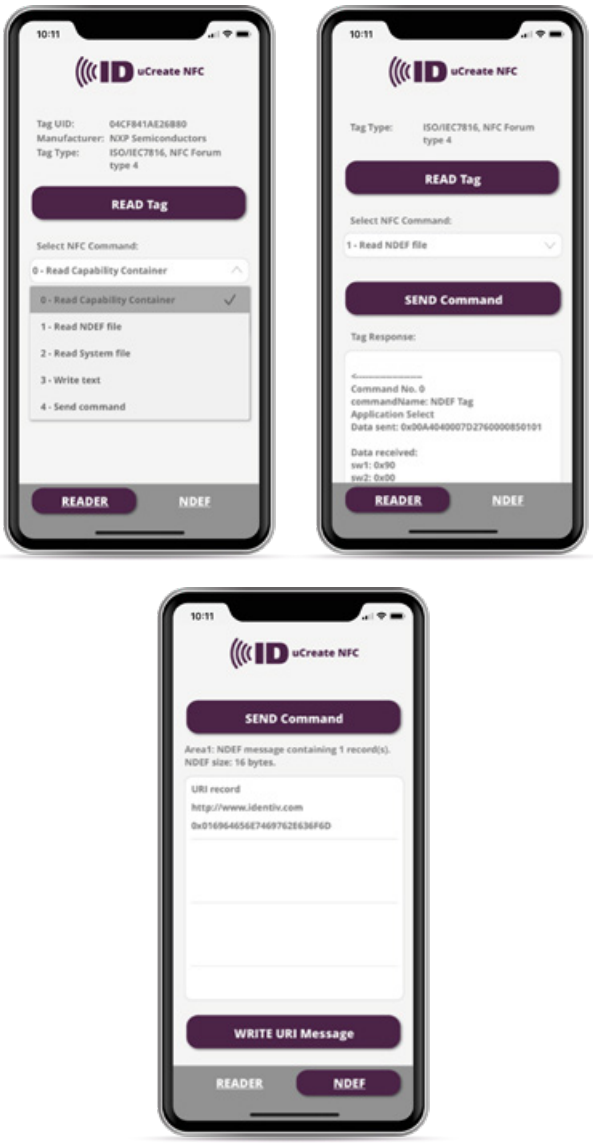
NFC Forum type 5 tag is an ISO/IEC 15693 tag configured to be able to store an NDEF message.

Below are some examples of supported type 5 tag commands and the representation of the received data. Scroll down the SEND Command window to see all available commands.

After reading the basic tag information, you can either select the Memory tab or the NDEF (NFC Data Exchange Format) tab.

Find more information about NDEF here:

- **NFC Forum: Data Exchange Format (NDEF) Technical Specification**
- **Wikipedia: Near-field communication**

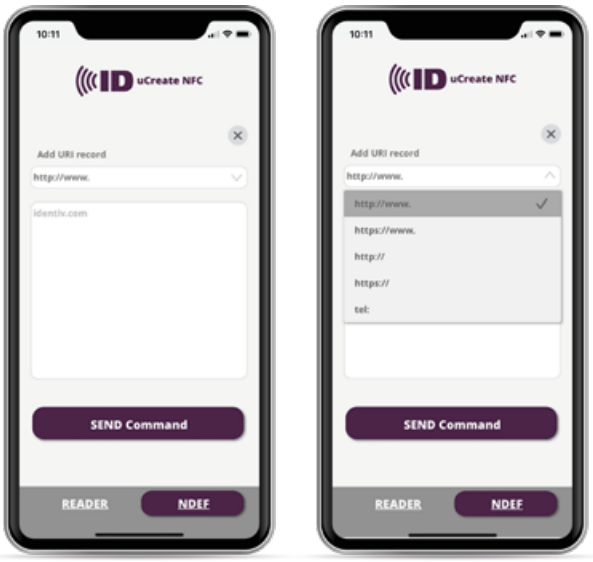


NXP MIFARE® DESFire® // NFC Forum Tag Type 4

The communication with NFC Forum tag type 4 is based on the ISO Data Exchange Protocol (ISO-DEP) which is fully compatible with the ISO/IEC 14443 A/B standard series.

Read tag, perform a Read Capability Container Command, and write an NDEF message to a type 4 tag.

Please note: For NFC Forum type 4 tags, the memory tab is not available due to many different type 4 tag ICs with different memory segmentation and access.



NFC Forum NFC Data Exchange Format (NDEF) Tab

NDEF specifies a common data format for NFC Forum-compliant devices and NFC Forum-compliant tags.

Find more information **here**.

The implemented functionality allows reading/writing of certain NDEF messages to the supported NFC tags.