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1.0. Introduction

The ACS MobileMate is an application developed by Advanced Card Systems Ltd that allows the user to explore ACS’ Mobile Card Reader (MOCR) product line using different types of card technologies such as contact, contactless and magnetic stripe cards.

The MOCR product line is comprised of ACR3x readers – ACR31 Swipe, ACR32 MobileMate and ACR35 NFC MobileMate. ACR3x is attached to the audio jack port of an Android™ device, which enables you to view smart card and card reader information, configure card reader settings, and establish a communication between the smart card and card reader.
2.0. Specifications

Below are the supported specifications of the ACS MobileMate application:

2.1. Supported Mobile Operating Systems

- Android™ 5.0 and later

2.2. Supported Mobile Card Readers

- ACR31 Swipe
- ACR32 MobileMate
- ACR35 NFC MobileMate
3.0. Using the ACS MobileMate application

To use the ACS MobileMate application:

1. Connect the ACR3x mobile card reader to the audio port of your device.

2. Open the ACS MobileMate application.
3. The application will start by detecting and highlighting the connected reader.
3.1. Set the Custom ID

To set the Custom ID:

1. Tap on **Settings**.

![ACR32 MobileMate Card Reader]

   - **Settings**
   - **Explore Device**
   - **Explore Magnetic Card**
   - **Explore Contact Card**

2. Tap on the **Custom ID** field, and then enter your preferred ID. Tap on **Set**.

![Settings]

   - **SET CUSTOM ID**
     - **ACS MOCR**
     - **Set**

*Note: Maximum number of characters is 10.*
3.2. Explore the mobile card reader

To explore the details of your mobile card reader:

1. Tap on Explore Device.

   ![Explore Device]

   - ACR32 MobileMate Card Reader
   - Settings
   - Explore Device
   - Explore Magnetic Card
   - Explore Contact Card

2. Wait until the ACR3x details are displayed:
   - **Firmware** – Firmware version of the mobile card reader
   - **Battery Level** – Remaining battery power of mobile card reader
   - **Reader ID** – Device ID in hexadecimal format
   - **Custom ID** – Custom name of the reader

   ![Explore Device Details]

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firmware Version</td>
<td>ACR32 V1.08</td>
</tr>
<tr>
<td>Battery Level</td>
<td>100%</td>
</tr>
<tr>
<td>Reader ID</td>
<td>29 BF DE 52 05 FD 29 24</td>
</tr>
<tr>
<td>Custom ID</td>
<td>ACS MD0CR</td>
</tr>
</tbody>
</table>
3.3. Explore the magnetic card

To explore the details of a magnetic card:

1. Tap on **Explore Magnetic Card**.

2. Swipe your magnetic card (in either direction) to the mobile card reader.
3. The magnetic card details will be displayed:
   - **Swipe Count** – Number of swipes to the reader
   - **DataReceived** – Data received in hexadecimal format

![Explore Magnetic Card](image)

- **Card Track 1** – Details the cardholder’s name, account number and other discretionary data
- **Card Track 2** – Holds the data used for financial transactions (e.g., ATM and credit card checkers)
  - **JIS2 Data** – Type of magnetic stripe data
  - **Card Number** – Primary account number
  - **Name** – Name of the cardholder
  - **Expiry Date** – Date of card’s expiration
  - **Service Code** – Indicates the type of card that is set by the Card Issuer
  - **Discretionary Data** – Sensitive authentication data that is defined by the Card Issuer (e.g., Card Verification Code)

<table>
<thead>
<tr>
<th>Card Track 1</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>JIS2 Data</td>
<td></td>
</tr>
<tr>
<td>Card Number</td>
<td>168011003974811</td>
</tr>
<tr>
<td>Name</td>
<td>MARK T. FRANCISCO</td>
</tr>
<tr>
<td>Expiration Date</td>
<td>0000</td>
</tr>
<tr>
<td>Discretionary Data</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Card Track 2</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Card Number</td>
<td>1168011003974811</td>
</tr>
<tr>
<td>Expiration Date</td>
<td>1220</td>
</tr>
<tr>
<td>Service Code</td>
<td>??</td>
</tr>
<tr>
<td>Discretionary Data</td>
<td></td>
</tr>
</tbody>
</table>
4. To reset the reader connection, tap on the Refresh button.

![Image showing Swipe Count and Data Received]

- **Swipe Count**: 1
- **Data Received**:
  - 23 00 87 50 F7 E2 C2 9A 41 1D 2F 11 43 FD C7 71
  - 04 BF F4 09 D1 A9 85 48 E7 93 F9 94 3A 89 6A 5F
  - 37 F2 E6 E9 7E 04 47 C1 0C F6 82 72 B1 49 C1 56
  - 4F 95 E4 0A 67 F1 93 82 EB 9C E4 03 C8 F8 E9 43
  - 5F 3B 20 CB A4 DF 16 BD 2C F9 13 1B 55 E1 74 01
  - 57 09 B3 DD D7 CC 13 1E 16 06 63 F3 A7 28 A5 97
  - 1A 60 7F F1 BD B8 63 26 B9 C7 8E 6E 81 43 35 BC
  - A2 FF F3 4A B5 60 F6 6C 83 39 36 25 BF 5D EA C7
  - 75 A1 64 99 0D 01 2F 18 27 BC (Checksum OK)
3.4. **Explore contact card (for ACR32 only)**

To explore the details of a contact card:

1. **Tap on Explore Contact Card.**

2. **Insert the card in the contact card slot of ACR32.**
3. To display the card’s Answer To Reset, tap on the **Answer To Reset** field.

4. To manually send commands to ACR32, tap on the **APDU** field, and then enter the command.

5. Tap on **Transmit Command**.
6. The **Response** code will be displayed.

![Explore Contact Card](image)

**Note:** To know more about APDU commands, please refer to the card manuals supported by the ACR3x mobile card readers.
3.5. Explore contactless card (for ACR35 only)

To explore the details of a contactless card:

1. Tap on Explore Contactless Card.

2. Tap the card to the ACR35 reader.
3. To display card’s Answer To Reset, tap the **Answer To Reset** field.

4. To manually send commands to ACR35, tap on the **APDU Command** field, and then enter the command.

5. Tap on **Transmit Command**.
6. The **Response** code will be displayed.

   ![Image of Exploring Contactless Card]

   **Note:** To know more about APDU commands, please refer to the card manuals supported by the ACR3x mobile card readers.
3.6. About the reader

To know more about the ACR3x reader and its technical specifications:

1. Tap on the ACR3x mobile card reader name.

2. The mobile card reader information will be displayed.

ACR32 MobileMate Card Reader

Settings

Explore Device

Explore Magnetic Card

Explore Contact Card

ACR32 MobileMate is the ideal tool that can be used with your mobile device. It unites card reader functionality with mobility which allows you to access secure applications anytime, anywhere.

The ACR32 MobileMate supports both magnetic cards that conform to ISO7810/11 standards; and ISO7816 Class A, B, and C smart cards (5 V, 3 V, and 1.8 V), microprocessor cards with T=0, T=1 protocol, and common memory cards in the
3.7. Contact ACS

To contact ACS:

1. Tap on the Contact icon to view the details.

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