Read-a-Card

Developer Guide

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Introduction for Developers

Read-a-Card has various features aimed at software developers, which hide the complexities of the contactless card and reader communication layers so that unique RFID card IDs and other data can be read easily, without prior knowledge of the technologies involved.

That way you can focus on other aspects of your system while Read-a-Card feeds you the information you're interested in. We have worked hard to include various useful application programming interfaces that you can use depending on your needs and experience. All the while, you can rest assured that Read-a-Card will give you compatibility with the widest range of readers and cards possible. This flexibility should make it easy to integrate smart cards into your solution.

Using advanced settings within the Read-a-Card user interface

There are numerous options available in Read-a-Card, but some of them are more powerful than others. Here are a few advanced settings you can use within the Read-a-Card interface.

One of the easiest ways to introduce some automation to Read-a-Card is with the "Run command" option on the "Action" page. This allows you to use command line interfaces or scripts that are dependent on what the card ID is. You could create a similar action for your website using the "Launch URL" command. Both of these actions allow for multiple parameters to be used, like the reader serial (if available), card type, or time stamp, as well as the card ID.

On the "Format" page, you can create an advanced template for the keyboard buffer to use. This greatly increases the use of the basic "keyboard wedge" functionality by allowing you to insert special characters or keyboard commands that your system would be able to parse and understand, easily directing the information you want to where it is needed.

With the Read-a-Card logging function, the logs that are created can be utilized by your software and read back in real time. You can easily create folder structures and logs with names based on which reader a card was read at or even based on the current date.

The Read-a-Card user interface can also be "locked" to prevent other users from accidentally modifying the settings. All settings, including the lock feature, can be enabled programmatically simply by writing the correct "Read-a-Card.ini" configuration text file, so that your software can effectively take control of how Read-a-Card operates.

Using the Read-a-Card Messaging API

If you are a Windows application developer looking to introduce contactless card technology, you can communicate directly with Read-a-Card through our Windows messaging based API. This is the cleanest way to add Read-a-Card functionality to your software, by receiving Windows messages from our software that contain the information you need. You can also send messages back to Read-a-Card to change the actions that it takes depending on the status of your system.

For more information on the Read-a-Card Messaging API, please refer to the API documentation included on the Read-a-Card CD in the /developer folder, or available for download from the Read-a-Card web site.

Using the Read-a-Card web server

If you are creating a web site or application in the browser, you will be glad to hear that it can also receive the information that is read from a contactless card or tag. Read-a-Card contains a built-in web server specifically for the purpose of allowing your web page, with the addition of a little JavaScipt, to read card information from within the user's web browser. The page can then send this information back to your server application. This allows your users to submit online forms that are automatically populated with the relevant information from their card.

For an example of how to add this ability to your web site, see the "cards.htm" file located in the /developer folder of the Read-a-Card CD and in the downloadable developer features pack on the Read-a-Card web site.

Extending Read-a-Card functionality with plug-ins

If you have found that Read-a-Card doesn't do exactly what you need, there is a good chance it can be added through the software's plug-in capabilities.

From version V3.0.7 onwards, Read-a-Card includes standard plug-ins for decoding certain types of NDEF records stored in NFC tags, and for decoding common formats of data stored in Mifare sectors, even if protected by specific access keys. The Mifare keys and format information are held in a configuration text file and can optionally be supplied securely stored within a smart card SAM module.

If you require something else, such as custom iClass, Mifare or DESfire format decodes, or any other requirement for decoding and returning contactless card ID information, please contact us via info@read-a-card.com to discuss how we can help.

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