

Card and Reader Technologies



ACR122U NFC Reader





ACR122U NFC Reader

Table of Contents

1.0 Introduction	3
1.1 Registration Module	3
1.2 Exhibitor Module	3
2.0 Demo Application Requirements	4
3.0 Using the Visitor Management System Application	4
3.1 Registration Module	4
3.2 Exhibitor Module	7



1.0 Introduction

The ACR122 NFC Reader can be used in a wide range of contactless solutions and this application simulates a Visitor Management System which can be used for tradeshows and other registration systems. The application is divided into two modules namely the Registration and Exhibitor Module.

1.1 Registration Module

In the Registration Module details of the user will be inputted then saved in a contactless smart card. Since the ACR122 supports ISO 18092 tags and ISO 14443 tags, you can choose from a wide variety of contactless card to use for your application, however, for this specific application, Mifare 1K card will be used. The program flow is summarized by the flow chart below.



Figure 1 Registration Module Flow Chart

1.2 Exhibitor Module

The whole application simulates a tradeshow registration system where visitors are first registered in the Registration Area. When a visitor drops by the booth, he/she can tap the card and the information will be saved in an excel file for the Exhibitor's reference. The program flow is summarized by the flow chart below.



Figure 2 Exhibitor Module Flow Chart



ACR122U NFC Reader

2.0 Demo Application Requirements

You need to have the following to be able to use the application.

- 1. .NET framework You need the .NET framework to run the application. Please refer to the SDK User Manual on how to install the .NET framework in your machine.
- 2. MS Excel You need this to open the database in Excel Form
- 3. MS Access This is not necessary but if you would like to open the *.mdb file you need to use MS Access.

Note: Application is not supported in Windows 2000

3.0 Using the Visitor Management System Application

3.1 Registration Module

1. In the main menu click on the Registration button.	Advanced Card Systems Ltd.
	Registration Exhibitor Remember my answer
 The Registration Module will open. Place the card on top of the reader. 	Visitor Management System - Registration Module File Powered by CSS Advanced Card Systems Ltd. www.acs.com.hk
	ID: (Auto Generated Value)
	Company Name.
	Last Name
	Position:
	Email Address:
	Location:
	Company Website:
	Register Clear
	Powered by

Reader: ACS ACR122 0 Card is present.



🧕 Visitor Management System - Registration Module

(acs) Advanced Card Systems Ltd.

First Name: Richelle

ID: (Auto Generated Value) Company Name: Advanced Card Systems Ltd

File

Powered by

ACR122U NFC Reader

www.acs.com.hk

3. Details of the participant should be inputted. Click on the Register button.

Note: The Clear button will only clear the fields in the application.

4. When registering a participant for the first time, a pop-up window will appear informing you whether or not you want to create the database. Click on the Yes button. The application will automatically create the database.

Last Name: Arjona	
Position: Product	t Marketing Engineer
Email Address: richelle.	arjona@acs.com.hk
Location: Philippin	nes 🔹
Company Website: http://w	ww.acs.com.hk
	Register Clear
Powered by	Systems Ltd. www.acs.com.hk
	,
Reader: ACS ACR122 0 Card is prese	nt.
	1 1 1 1 1 1 1
Visitor Management System - Reg	jistration Module
File Powered by	
Advanced Card	Systems Ltd. www.acs.com.hk
ID: (Auto G	enerated Value)
Company Name: Advance	ed Card Systems Ltd
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I Create Database	
Database (Create?	acs.mdb) does not exist.
Ema	
	Yes No
Company Website: http://w	ww.acs.com.hk
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	Register
Powered by Advanced Card	Systems Ltd. www.acs.com.hk
eader: ACS ACR122 0 Card is preser	nt.
Visitor Management System - Reg	gistration Module
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Advanced Card	Systems Ltd. www.acs.com.hk
ID: 1	
Company Name: Advance	ed Card Systems Ltd
Company Name: Advance	ced Card Systems Ltd
Company Name: Advanc	ced Card Systems Ltd
Company Name: Advance First Nam Last Nam	ced Card Systems Ltd
Company Name: Advance First Nam Last Nam Positic	ced Card Systems Ltd
Company Name: Advance First Nam Register Last Nam Positic Email Addres	Successfully Registered
Company Name: Advance First Nam Register Last Nam Positic Email Addres Locatic	Ced Card Systems Ltd
Company Name: Advance First Nam Register Last Nam Positic Email Addres Locatic Company Website response	Successfully Registered!
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5. A pop up window will appear once the data is successfully saved in the contactless card and the database.



ACR122U NFC Reader

6. There are other options that can be used in the Registration Module under the File Menu.

7. If you have several ACR122U NFC Readers connected to your computer, this option will allow you to choose which device you want to use.

8. This option allows you to export the database into Excel Form.

If you click on the Export to Excel option an Excel Worksheet will appear containing the data for all the registered users.

9. Under the File Menu, you can also click on the Preference button which will open the Registration Settings Window.

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	Select Reader		•	
	Database		•	0007026
	Preferences	Ctrl+Shift+P		ems Ltd. www.acs.com.hk
	Switch Module	Ctrl+Shift+S		
	Exit	Ctrl+Shift+X		ated Value)
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	Select Reader		×	ACS ACR122 0
	Database			
	Preferences	Ctrl+Shift+P		ems Ltd. www.acs.com.hk
	Preferences Switch Module	Ctrl+Shift+P Ctrl+Shift+S		ems Ltd. www.acs.com.hk
	Preferences Switch Module Exit	Ctrl+Shift+P Ctrl+Shift+S Ctrl+Shift+X		ems Ltd. www.acs.com.hk
	Preferences Switch Module Exit	Ctrl+Shift+P Ctrl+Shift+S Ctrl+Shift+X	5116	ems Ltd. www.acs.com.hk
Vis	Preferences Switch Module Exit itor Management	Ctrl+Shift+P Ctrl+Shift+S Ctrl+Shift+X	stra	ems Ltd. www.acs.com.hk ated Value)
Vis	Preferences Switch Module Exit itor Management	Ctrl+Shift+P Ctrl+Shift+S Ctrl+Shift+X	stra	ems Ltd. www.acs.com.hk
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File					
	Select Reader		۲		
	Database		۲		
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	Switch Module	Ctrl+Shift+S			
	Exit	Ctrl+Shift+X			



ACR122U NFC Reader

10. In this window, you can modify the settings.

Database Settings

Filename – Excel File where the data will be saved.

Table Name – The name of the table in the Database.

Username – username that will be used to access the database.

Password – password of the username specified.

General Setting:

Title – Caption/Text that will be displayed in the top corner of the main window

Top Logo – Image (JPG) that will displayed on the top portion of the main window.

Link - a URL that will be opened when you click the top image of the main window.

11. As the name of the Switch Module implies, it allows you to switch between the two modules of the application.

12. The Exit Option closes the application.

egistration Sett	ings	
Database:		
Filename:	acs.mdb	
Table Name:	Participants	
User Name:	root	
Password:	•••••	
General:		
Title:	Visitor Management System - Re	
Top Logo:	RegMod_Toplogo.jpg	
Link:	http://www.acs.com.hk/	

File	itor Managemen	t System - Reg	istra	ition Module	
	Select Reader		•		
	Database		•		
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	Exit	Ctrl+Shift+X			- in the second s

File		, ,			
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	Database		۲		20
	Preferences	Ctrl+Shift+P		ems Ltd	www.acs.com.hk
	Switch Module	Ctrl+Shift+S			
	Exit	Ctrl+Shift+X			

3.2 Exhibitor Module

1. In the main menu click on the Exhibitor button.

Degistration	Exhibitor
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ACR122U NFC Reader

2. The Registration Module will open. Place the card on top of the reader.

3. When the application is used for the first time, a pop-up window will appear informing you whether or not you want to create the database. Click on the Yes button. The application will automatically create the database.

ID:		
Company Name:	 	
First Name:		
Last Name:		
Last Name.		
Fosiuon.		
Email Address:		
Location:		
Jompany vvebsite:		

	ID: 1
Company I	Name: Advanced Card Systems Ltd
ſ	Create Database
First	
Last	Database (acs.xls) does not exist. Create?
F	
Email A	Yes No
L	
ompany We	ebsite: http://www.acs.com.hk
on party we	solid. mapariti add.commi

4. You will see the information stored in the card. This data is saved in an excel file.

Advance	eu caru systems Ltu. www.ats.com
ID:	1
Company Name:	Advanced Card Systems Ltd
First Name:	Richelle
Last Name:	Arjona
Position:	Product Marketing Engineer
Email Address:	richelle.arjona@acs.com.hk
Location:	Philippines
Company Website:	http://www.acs.com.hk



ACR122U NFC Reader

5. If you tap the same card again on the exhibitor module, a warning message will appear. It gives you the option to save the data twice in the excel file or not.



6. There are other options that can be used in the Exhibitor Module under the File Menu.

If you have several ACR122U NFC Readers connected to your computer, this option will allow you to choose which device you want to use.

7. This option allows you to open the database which is in Excel Form.

The Excel Worksheet on the right is the database that contains the details of the participants who drop by the Exhibitor's booth.

8. Under the File Menu, you can also click on the Preference button which will open the Registration Settings Window.

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5	Select Reader		F	ACS ACR122 0	
ţ	Database Preferences	Ctrl+Shift+P	۲	tems Ltd. www.ac	s.com.hk
5	Switch Module	Ctrl+Shift+S			
E	Exit	Ctrl+Shift+X			

<u>F</u> ile				
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	Database		•	Open/Show Ctrl+Shift+O
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	Switch Module Ctrl+Shift+S			
	Exit	Ctrl+Shift+X		

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Visitor Management System - Registration Module	-	Advar	icea Ricr	nelle Arjor	ia Produ	ct M richelle.a	arj Pnilippine	nttp://www	.acs.com.hk
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Database		Select Rea	Juci						
ems Ltd www.acs.o		Select Rea	Juci						
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ACR122U NFC Reader

10. In this window, you can modify the settings.

Database Settings

Filename – Excel File where the data will be saved.

Table Name – The name of the Sheet in MS Excel file.

General Setting:

Title – Caption/Text that will be displayed in the top corner of the main window

Top Logo – Image (JPG) that will displayed on the top portion of the main window.

Link – a URL that will be opened when you click the top image of the main window.

11. As the name of the Switch Module implies, it allows you to switch between the two modules of the application.

12. The Exit Option closes the application.

Database:	a	
Filename:	acs.xls	
Table Name:	Participants	
User Name:		1
Password:		
General:		
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ile	Select Reader Database Preferences Ctrl+Shift+P		F.	tems Ltd.	www.acs.com.hk	
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