

Reader Controller Client

DynaPro PINPad SCRA VCPS Reference

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Table 0.1 – Revisions

Rev Number	Date	Notes
10	December 21, 2018	Initial release

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1 Introduction

This document provides instructions for operating the application Reader Controller Client for VCPS which is a Reader-Terminal Application to support the testing automation designed for Visa Contactless Payment Specifications (VCPS) Level 2 Type Approval.

It is part of a larger library of documents, which includes the following documents:

• VCPS Reader Test Plan Companion Guide for Test Automation v1.3

1.1 System Requirements

- Windows 10
- Microsoft .Net 4.6.1 and above.

1.2 How to Install MagTek Reader Controller

- 1) Run setup.exe.
- 2) At the **Reader Controller for VCPS** window, press the **Next** button.



3) At **Select Installation Folder**, use the defaults and press the **Next** button.



4) Press the **Next** button to confirm the installation.

儼 Reader Controller for VCPS v1.0.4			_		×
Confirm Installation					5
The installer is ready to install Reader Co	ntroller for VCPS v1.0.4	on your comp	uter.		
Click "Next" to start the installation.					
	Cancel	< <u>B</u> ack		<u>N</u> e	xt >

5) Press the **Close** button to complete the installation.



6) After installation, the shortcut to the **ReaderController for VCPS** program will appear in both Desktop and Start Menu.



1.3 How to Install Visa Reader Controller Verifier

- 1) Run Visa.RCVerifier.1.3.Installer.msi.
- 2) At the **Visa RCVerifier** window, press the **Next** button.



3) At **Select Installation Folder**, use the defaults and press the **Next** button.

뒚 Visa RCVerifier 1.3	_		×
Select Installation Folder			-
The installer will install Visa RCVerifier 1.3 to the following folder.			
To install in this folder, click "Next". To install to a different folder, enter it be <u>F</u> older:	low c	or click ''l	Browse''.
C:\Program Files\Visa Simulator\Visa RCVerifier 1.3\		Bīom	se
		<u>D</u> isk C	lost
Install Visa RCVerifier 1.3 for yourself, or for anyone who uses this comput	er:		
◯ <u>E</u> veryone			
● Just <u>m</u> e			
Cancel < <u>B</u> ack			<u>V</u> ext >

4) Pres the **Next** button to confirm the installation.



5) Pres the **Close** button to complete the installation.

援 Visa RCVerifier 1.3	_		×
Installation Complete			
Visa RCVerifier 1.3 has been successfully installed.			
Click "Close" to exit.			
	_		
Cancel < <u>B</u> ac	<	<u>C</u> I	ose

6) After installation, the shortcut to the **Visa RCVerifier** program will appear in both Desktop and Start Menu.



1.4 How to Set Up MagTek Reader Controller

fDDA (fast Dynamic Data Authentication) is disabled by default after the application is installed. To set up support for fDDA, follow these steps:

- 1) Close the Reader Controller application.
- 2) Navigate to the folder: C:\Program Files (x86)\MagTek Inc\Reader Controller for VCPS v1.0.4
- 3) Open the configuration file: **ReaderController.exe.config**
- 4) Navigate to tag:

/Configurations/applicationSetting/ReaderController.Properties.Settings/setting name="ForcefDDA"

5) Set the value to "True" as shown below:

6) Save the configuration file and restart the Reader Controller application.

2 How to Use MagTek Reader Controller for VCPS

This section describes how to use the MagTek ReaderController client application for performing VCPS tests to the Visa RCVerifier server application. For details of each test, refer to the following Visa documents:

• VCPS Reader Test Plan Companion Guide for Test Automation v1.3

2.1 ECHO Test

Run an ECHO test to check end-to-end communication between ReaderController for VCPS client and Visa RCVerifier server.

1) Run **Visa RCVerify** and press the **Run Test** button.

👴 Visa Reader Controller Verifier	1						_	×
File Help								
Choose a Server Scenario :		-		٠				
Single Run - Test 1 to 18					S	ettings	Result	

- 2) Run **ReaderController for VCPS** and press the **ECHO Test** button.
- 3) Status of the ECHO test is shown as below.

Magtek VCPS ReaderController Ver.1.0.4.0		-	×
File Settings Help			
Connection Settings	Reader Controller Settings		
Server Addr.: 127.0.0.1 Server Port: 8182 ECHO Test	Delay between tests (ms): 1000 Retry: 3 Stop on Error Error Injection: NONE V	V	
	Run Test Clear All		
	11		
ECHO Response: Status = 200, Reason = OK, Content-lengt	th = 76		 _
Ready			

4) Also from **Visa RCVerifier**, the ECHO is captured as shown below.

👴 Visa Reader Controller Verifier					-	×
File Help						
Choose a Server Scenario :	Single Run - Test 1 to 18	Ŧ	▶ 1	٠		
▼ Single Run - Test 1 to 18					Settings Result	
► ECHO	J				Choose a Sample Test : Test_01.xml	Ŧ

2.2 RUN Test

Run the applicable Server Scenario by following the steps below.

1) Run **Visa RCVerify** and choose a **Server Scenario** from the drop-down list.

👴 Visa Reader Controller Verifier					_	х
File Help						
Choose a Server Scenario :	Single Run - Test 1 to 18		٠			
				Settings	Result	

2) Choose a **Sample Test** from the drop-down list.

👴 Visa Reader Controller Verifier	-	×
File Help		
Choose a Server Scenario : S	Single Run - Test 1 to 18 🔹 🕨 📕 🔶	
	Settings Result	
	Choose a Sample Test :	ור
	Test_01.xml	•

3) Press the **Run Test** button to place the server in ready mode.

👴 Visa Reader Controller Verifier					_	×
File Help						
Choose a Server Scenario :	~		٠			
Single Run - Test 1 to 18				Settings	Result	

4) Now run the **ReaderController for VCPS** application and press the **Run Test** button.

Magtek VCPS ReaderController Ver.1.0.4.0		-	×
File Settings Help			
Connection Settings Server Addr.: 127.0.0.1 Server Port: 8182 ECHO Test	Reader Controller Settings Delay between tests (ms): 1000 Retry: 3 Stop on Error Error Injection: NONE V	~	
	Run Test Clear All		

5) The bottom of the application displays the name of each test currently being evaluated against the Visa RCVerifier Server Scenario.

[Test ID = Test_01, Config ID = config_01] STXN Response: Status = 200, Reason = OK, Content-length = 153 Found device: USB://98D90C660E070F0E Calling low-level API	97
Test_01 is running. Please wait	.:.

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- 6) Follow all instructions pertaining the test scenarios (ie: accept amount, present card, enter PIN) as governed by the VCPS specification.
- 7) To view the result of each test within ReaderController for VCPS, select a test from the **RESULTS** list.

Server Exchange Messages XML Viewer	RESULTS:
5443684800013455D1972010010072610000F 57> <de_5a>5443684800013455C/DE_5F20> 5F20> 5F20</de_5a>	Test_Batch_01 Test_Batch_02 Test_Batch_03 Test_Batch_05
Transfer-encoding: chunked Accept-Ranges: bytes Date: Thu, 29 Nov 2018 22:25:14 GMT	
[Test ID = Test_Batch_02, Config ID = config_2] VERDICT = PASS [Test ID = Test_Batch_01, Config ID = config_1] VERDICT = PASS [Test ID = Test_Batch_03, Config ID = config_3] VERDICT = PASS	
[Test ID = Test_Batch_05, Config ID = config_5] VERDICT = PASS	
Ready	.::

8) To view the result of each test within **Visa RCVerify**, run **Visa RCVerify**, select a test from the **RESULTS** list and view the result as shown below.

👴 Visa Reader Controller Verifie	r					_	×
File Help							
Choose a Server Scenario :	Single Run - Test 1 to 18	•		٠			
 Single Run - Test 1 to 18 STXN ETXN STXN 			-		Settings Test Lists Test 1 Test 2 Test 3 Test 4 Test 5 Test 6 Test 7 Test 8 Test 9 Test 10 Test 11 Test 12	Result	
Transaction Outcom	e match Expected Outcome				 Test 13 Test 14 Test 15 Test 16 Test 17 Test 18 		
Ready							

Example Pass

🐵 Visa Reader Controller Verifier			_	×
File Help				
Choose a Server Scenario : Single Run - Test 1 to 18 🔹	•			
Choose a Server Scenario : Single Run - Test 1 to 18 Single Run - Test 1 to 18 STXN ETXN STXN Transaction Outcome doesn't match Expected Outcome Live Result is:		Settings ▼ Test Lists ● Test 1 ● Test 2 ● Test 3 ● Test 4 ● Test 5 ● Test 6 ● Test 7 ● Test 8 ● Test 9 ● Test 10 ● Test 11 ● Test 12 ● Test 13 ● Test 14 ● Test 15	Result	
Expected Result is: <transaction_outcome>20</transaction_outcome>		 Test 16 Test 17 Test 18 		
Ready				

Example Fail

2.3 RUN Test with Error Injection

This section describes how to use the ReaderController client application to exercise error injection.

1) Run **Visa RCVerify** application and choose a **Server Scenario** from the drop-down list.

👴 Visa Reader Controller Verifier					_	×
File Help						
Choose a Server Scenario :	Single Run - Test 1 to 18		٠			
				Settings	Result	

2) Choose a **Sample Test** from the drop-down list.

👴 Visa Reader Controller Verifier					_	×
File Help						
Choose a Server Scenario :	Single Run - Test 1 to 18	-	•			
				Settings	Result	
				Choose a Sample Test :		ור
				Test_01.xml		-

3) Press the **Run Test** button to place the server in ready mode.

👴 Visa Reader Controller Verifier	r					_	Х
File Help							
Choose a Server Scenario :		-		٠			
Single Run - Test 1 to 18					Settings	Result	

4) Now run the **ReaderController for VCPS** application.

Magtek VCPS ReaderController Ver.1.0.4.0	–	:
File Settings Help		
Connection Settings Server Addr.: 127.0.0.1 Server Port: 8182 ECHO Test	Reader Controller Settings Delay between tests (ms): 1000 Retry: 3 Stop on Error Error Injection: NONE V	
	Run Test Clear All	

5) Select the desired error type from the **Error Injection** drop-down list

Magtek VCPS ReaderController Ver.1.0.4.0					-	×
File Settings Help						
Connection Settings	Reader Controller Set	tings				
Server Addr.: 127.0.0.1	Delay between tests (ms): 1000	Retry: 3			
Server Port: 8182 ECHO Test	Stop on Error	Error Injection:	NONE			
			NONE Ded STXN format			
	Run Test		Multiple STXN messages Multiple ETXN messages			
Server Exchange Messages XML Viewer			ETXN with wrong Test_ID Echo in between messages	IL.	'S:	
			Unexplected flow			

6) Return to the **Visa RCVerifier** application to view the effect of the error injection.

Below is an example where **Echo in between messages** was selected as an error injection.

😵 Visa Reader Controller Verifier	- 🗆 X
File Help	
Choose a Server Scenario : Single Run - Test 1 to 18 🔹 🕨 📕 🔶	
 Single Run - Test 1 to 18 STXN 	Settings Result
► ECHO	Choose a Sample Test :
► ETXN	Test_01.xml 👻
► STXN	Server Address :
	http://localhost
	Server Port :
	8182
Transaction Outcome match Expected Outcome	Stop On Error Always No Host Response Always Reply Error Message
Ready	

2.4 Reader Controller Features

This section describes the feature of ReaderController client application.

2.4.1 File Logging

Magtek VCPS ReaderControlle	Ver.1.0.4.0 – 🗆 🗙	٦
File Settings Help		
Save GUI log Open GUI log folder Open application log Exit	Reader Controller Settings Delay between tests (ms): 1000 Retry: 3 Stop on Error Error Injection: NONE	
	Run Test Clear All	

• Save GUI log

Saves a view of the current GUI data seen in Server Exchange Messages, XML Viewer, and the Status section bottom of application.

• Open GUI log folder

Opens the folder where the GUI log is saved.

• Open application log

Opens the application log. The log contains the cumulative interaction of the GUI and transaction communications to the Visa RCVerifier server. Format is ReaderController_YYYY-MM-DD.log where YYYY-MM-DD is the date stamp during which the log was created. A separate log file is created for each date the application is ran.

2.4.2 Settings

🚯 Magt	ek VCPS ReaderController Ver.1.0.4.0	- 🗆 X
File	Settings Help	
Conre	Set Device Date/Time	Reader Controller Settings
Serve	Restore Device to Current Time	Delay between tests (ms): 1000 Retry: 3
Serve	Ignore Empty Tags	K st
	Save All Settings	
	Restore GUI Default Settings	Run Test Clear All

• Set Device Date/Time

Prompts to set the device to a selectable a Date/Time.

• Restore Device to Current Time

Sets the device the current Date/Time of the PC.

• Ignore Empty Tags

When checked, empty value XML tags from the Visa RCVerifier server are ignored.

When unchecked, the application may encounter an error for tags where a value is expected.

• Save All Settings

Saves all the settings of the application.

• Restore GUI Default Settings

Returns the application to the default settings. The effect is immediate without need of application restart.

2.4.3 Reader Controller Settings

Magtek VCPS ReaderController Ver.1.0.4.0	–
File Settings Help	
Connection Settings Server Addr.: 127.0.0.1 Server Port: 8182 ECHO Test	Reader Controller Settings Delay between tests (ms): 1000 Retry: 3 Stop on Error Error Injection: NONE V
	Run Test Clear All

• Delay between tests (ms)

To set a delay between each test, enter the delay value in milliseconds.

• Stop on Error

When checked-on, tests are stopped after an error. When checked-off, tests continue running after an error.

• Retry

To retry a test when the server returns status of Busy, enter the number of retries. Stop on Error must be Checked-off to enable the retries.