



Mobile-Eyes™ VDM Installation Guide

080-001597
Revision C

Copyright Notice

This publication is protected by federal copyright law. No part of this publication may be copied or distributed, transmitted, transcribed, modified, or translated without the prior express written permission of an authorized officer of L-1 Identity Solutions, Biometrics Division (“L-1”).

Warranty

L-1 makes no representation or warranty regarding the contents of this publication and specifically disclaims any implied warranties of merchantability or fitness for a particular purpose.

Revision or Errors

L-1 reserves the right to revise this publication periodically without obligation to notify any person of such revision. L-1 assumes no responsibility for errors that may appear in this publication.

Export Restrictions

You shall not and shall not allow any third-party to remove or export from the United States or allow the export or re-export of any part of this publication and the product identified herein, including the software, materials, and other related documentation, in violation of any restrictions, laws, or regulations of the United States or foreign government agency or authority.

Links to Third Party Sites

This document may contain links to web sites that were current at the time of publication, but that may have moved or become inactive since. This document may contain links to sites on the Internet, which are owned and operated by third parties. L-1 is not responsible for the content of any such third-party site.

© 2010, 2011 Identix Incorporated, an L-1 Identity Solutions company. All rights reserved.

The trademarks identified herein are the trademarks or registered trademarks of Identix Incorporated, an L-1 Identity Solutions company, its parent and affiliated companies, or other third party.

Table of Contents

1. Introduction	1
Technical Support.....	1
2. Installing Mobile-Eyes™ VDM	2
Requirements and Prerequisites.....	2
Minimum System Requirements.....	2
Installation Prerequisites.....	2
Extract the L-1 VDM Download Files.....	3
Install the Redistributable Programs.....	3
Install Mobile-Eyes™ VDM.....	7
Update the Mobile-Eyes™ VDM Shortcut for Windows® 7.....	10
Start the Mobile-Eyes™ VDM Tool and Stop the Service.....	11
Connect the Mobile-Eyes™ Scanner to the PC.....	12
Initialize the Mobile-Eyes™ Scanner.....	13
Restart the Service.....	14
3. Capturing Quality Irises	15
4. Troubleshooting	16
Uninstalling Mobile-Eyes™ VDM.....	16
UIDIA VDM Trouble Report Checklist.....	17
Appendix: Installation Files	18

1. Introduction

The Mobile-Eyes™ Vendor Device Module (VDM) from L-1 Identity Solutions is used with the Biometric Device Module (BDM) and client enrollment application to support the Unique Identification Authority of India (UIDAI) Aadhaar program.

The VDM is designed to run as a Microsoft® Windows® service, which allows a user to operate the UIDAI client application and auto-capture fingerprints for individual enrollment records. If the individual has missing fingers, this information can be noted during the fingerprinting process.

This *Mobile-Eyes™ VDM Installation Guide* explains how to install and validate the Mobile-Eyes™ VDM software, as well as recommended best practices for capturing quality irises with the Mobile-Eyes™ scanner.

Technical Support

US Customers: 1-888-435-7439
OR
1-952-945-5512

International Customers: Contact your System Administrator or Sales Representative for the Service Number for your country
OR
1-952-945-5512

E-mail: L1BDSupport@L1ID.com

Website: www.L1ID.com

2. Installing Mobile-Eyes™ VDM

The process of installing Mobile-Eyes VDM includes the following tasks, in the order presented below:

- *Requirements and Prerequisites* (below)
- *Extract the L-1 VDM Download Files* (page 3)
- *Install the Redistributable Programs* (page 3)
- *Install Mobile-Eyes™ VDM* (page 7)
- *Update the Mobile-Eyes™ VDM Shortcut for Windows® 7* (page 10)
- *Start the Mobile-Eyes™ VDM Tool and Stop the Service* (page 11)
- *Connect the Mobile-Eyes™ Scanner to the PC* (page 12)
- *Initialize the Mobile-Eyes™ Scanner* (page 13)
- *Restart the Service* (page 14)

Requirements and Prerequisites

Ensure that the requirements and prerequisites listed below are met before proceeding with the installation process.

Minimum System Requirements

- Microsoft Windows XP SP3 (32-bit) or Windows 7 (32-bit) operating system (OS) (Windows Server 2008 and 64-bit OS are not supported)
- 512MB RAM (or higher)
- x86 Processor, 2.0 GHz (or higher)
- 2GB available HDD space or above
- Microsoft .NET Framework V 3.5 for Windows XP
Microsoft .NET Framework V 4.0 for Window 7
- Mouse, SVGA Monitor, Keyboard
- Dedicated USB 2.0 port

Installation Prerequisites

- Microsoft .NET Framework V 3.5 for Windows XP
Microsoft .NET Framework V 4.0 for Window 7
- Windows based PC (Windows XP SP3 (32-bit) / Windows 7 (32-bit))
- Biometric Device Module (BDM) Service, installed and operational (provided by UIDIA)
- Enrollment Application, installed and operational (provided by UIDIA)
- Mobile-Eyes VDM download requested and received from L-1 Identity Solutions

Extract the L-1 VDM Download Files

1. Locate the **L-1 VDM** download. This download is requested from L-1 Identity Solutions via the website: www.L1id.in/uid (see *Installation Prerequisites* on page 2 for details).
2. Extract the download to your C (local) drive.
3. Navigate to the following directory, which contains an installer folder and a prerequisites folder:

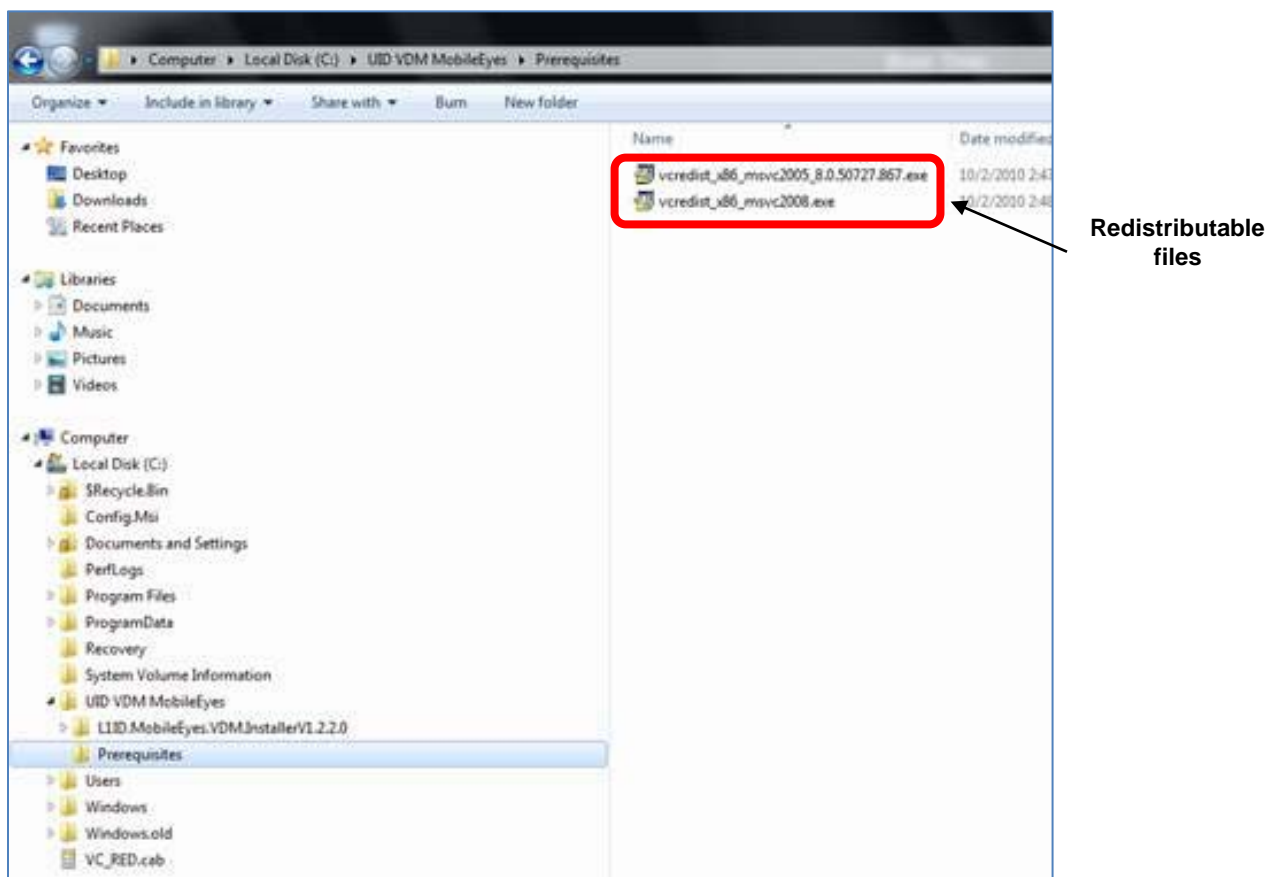
C:\UID VDM MobileEyes

Install the Redistributable Programs

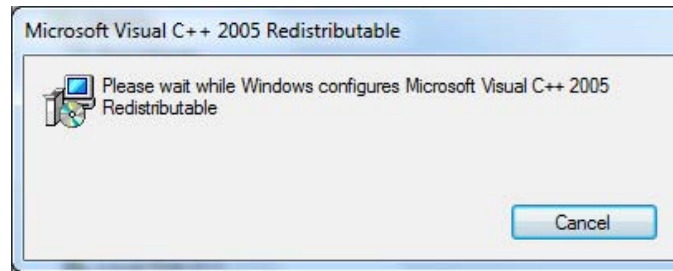
4. Open the Prerequisites directory, which contains the redistributable programs:

C:\UID VDM MobileEyes\Prerequisites

5. Locate the first redistributable files (**vc redistrib_x86_msvc2005_8.0.50727.867.exe**) and do the following:
 - For Windows XP, double-click the executable.
 - For Windows 7, right-click the executable and select **Run as Administrator**.



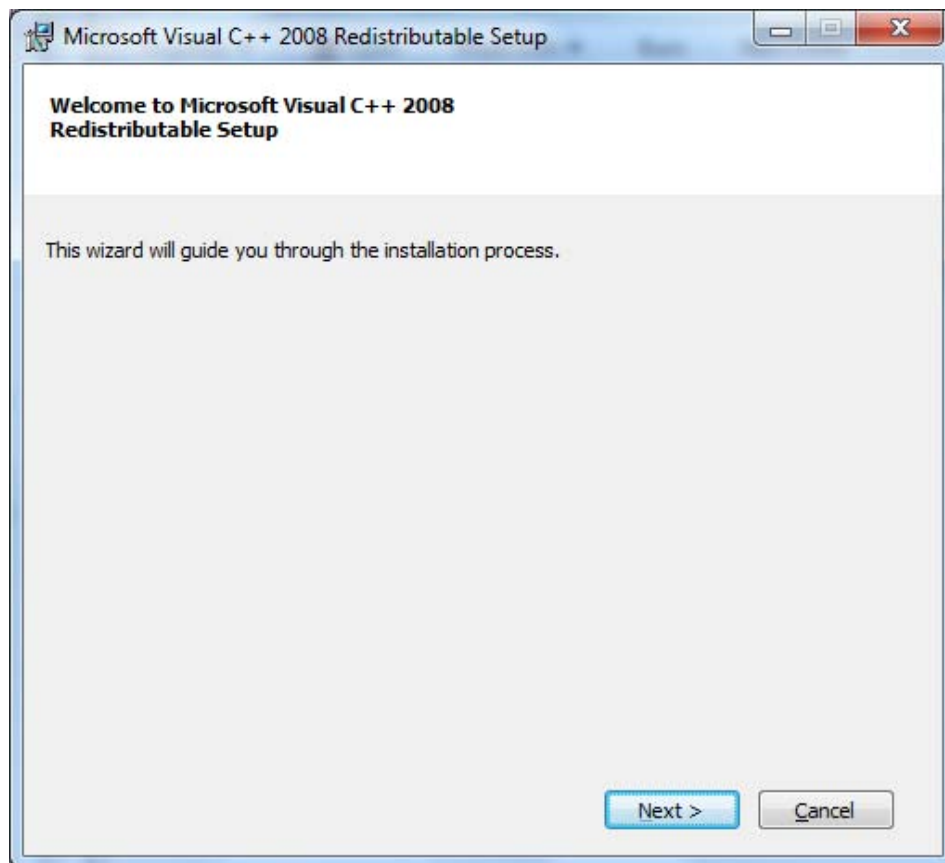
A notification screen displays.



After the screen completes the configuration, the first redistributable program is installed.

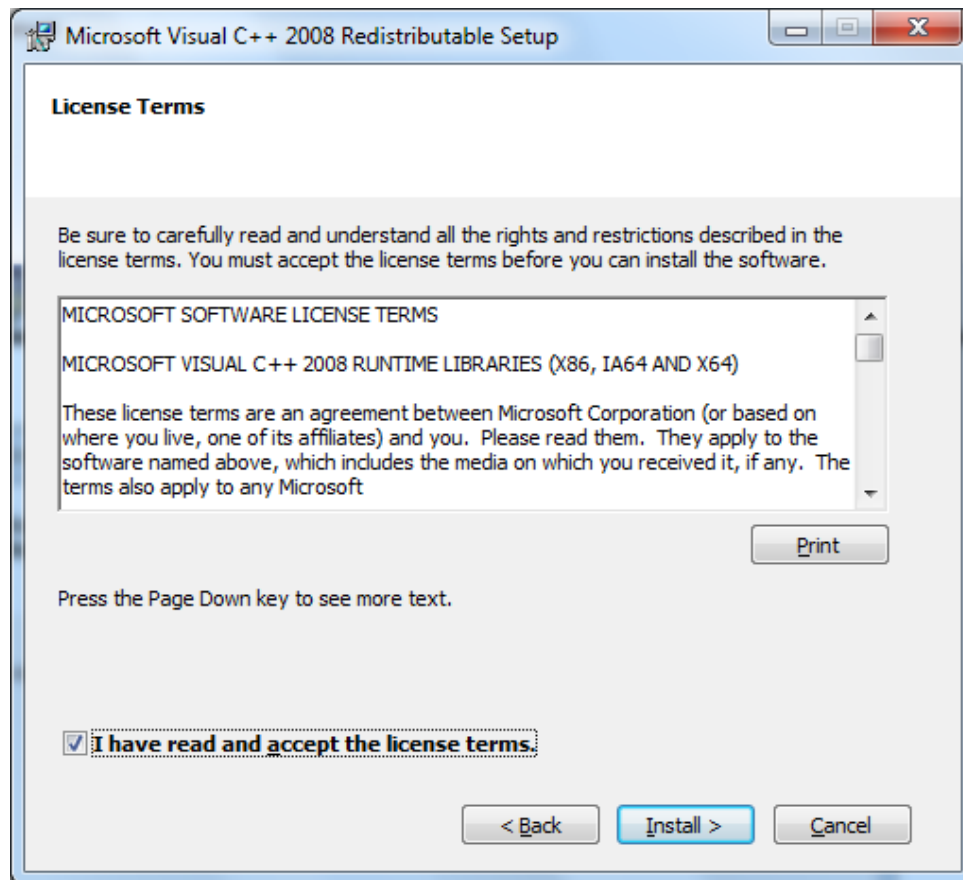
6. Locate the second redistributable files (**vc9credist_x86_msvc2008.exe**) and do the following:
 - For Windows XP, double-click the executable.
 - For Windows 7, right-click the executable and select **Run as Administrator**.

A Welcome screen displays.



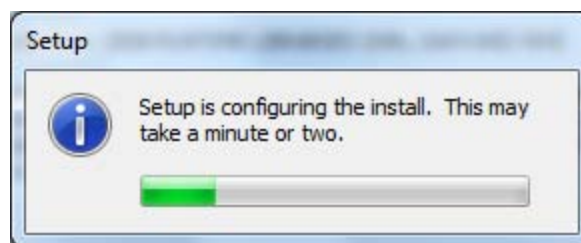
7. Select the **Next** button.

Then the License Terms screen displays.

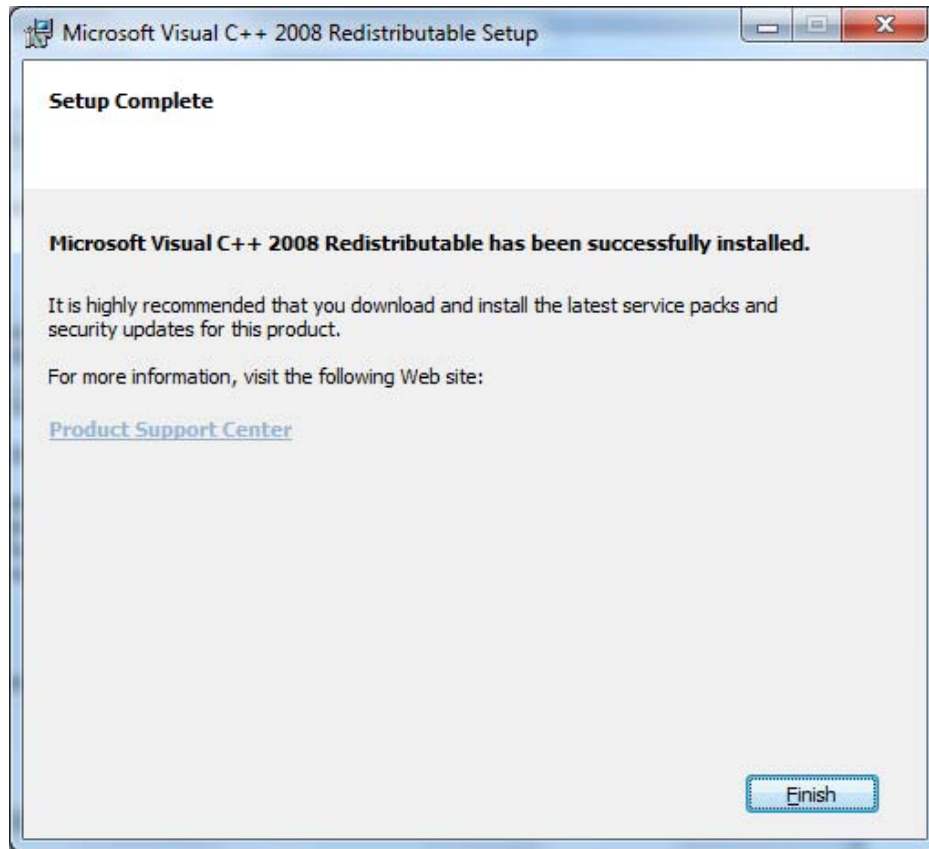


8. Review the terms.
9. Select the checkbox for **I have read and accept the license terms.**
10. Select the **Install** button.

A setup notification displays.



A Setup Complete screen displays.



11. Select the **Finish** button.

Install Mobile-Eyes™ VDM

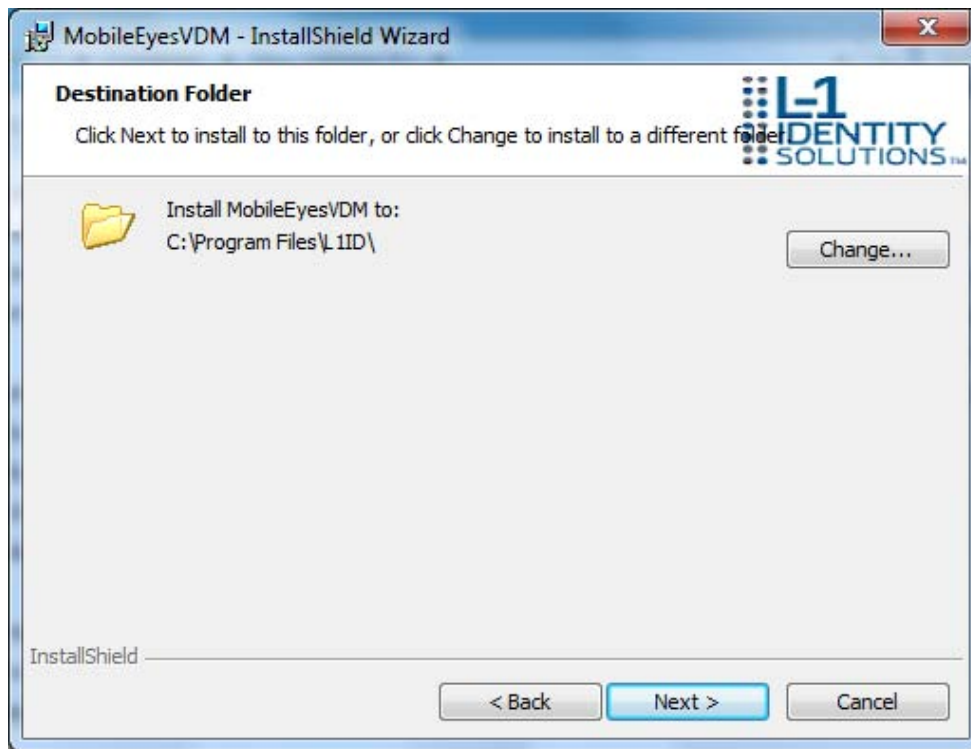
12. Verify that all devices from L-1 Identity Solutions are disconnected.
13. Verify that all services and applications using the devices are not running.
14. Locate **setup.exe** in the installation directory (for details, see step 3 on page 3) and do the following:
 - For Windows XP, double-click the executable.
 - For Windows 7, right-click the executable and select **Run as Administrator**.

A Welcome screen displays.



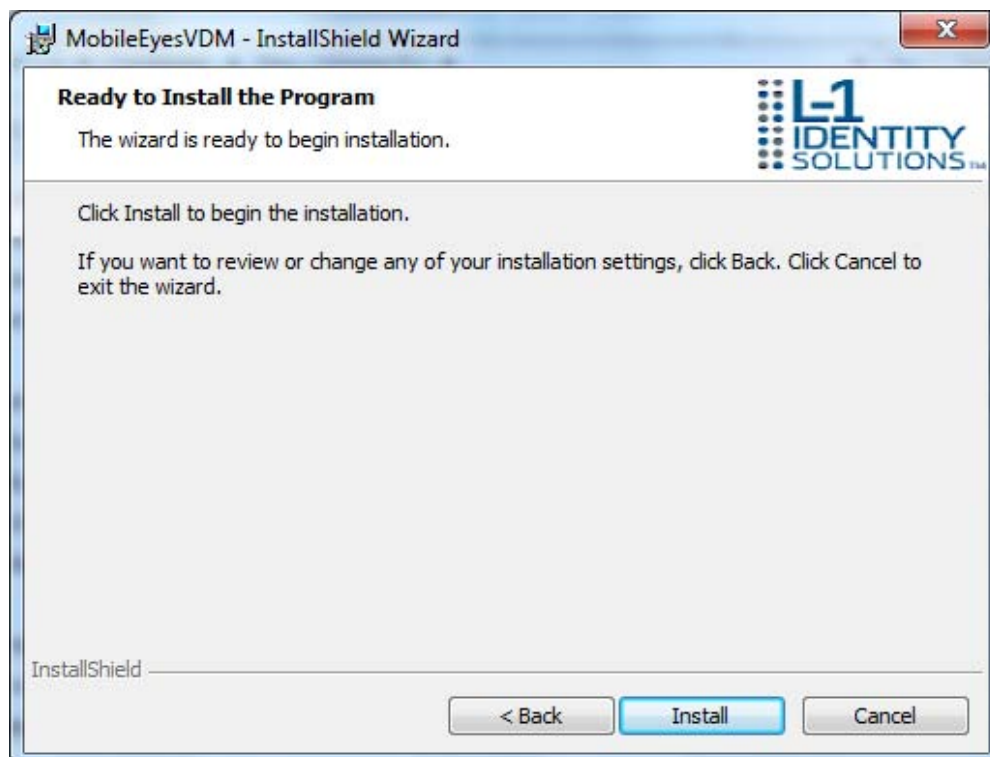
15. Select the **Next** button.

A Select Installation Folder screen displays.



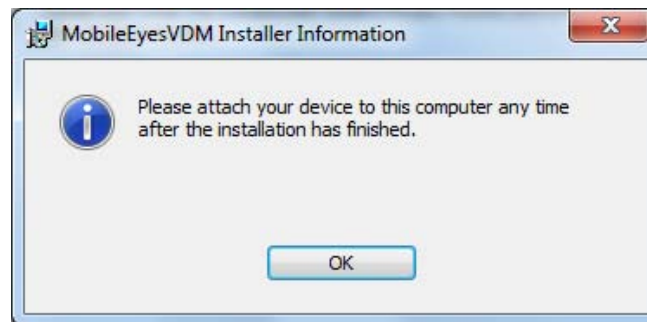
16. Select the **Next** button.

A Confirm Installation screen displays.



17. Select the **Install** button.

A message displays, reminding you to attach the Mobile-Eyes device to the computer after the installation completes.



18. Select the **OK** button.

After the installation finishes, an Installation Complete screen displays.



19. Select the **Finish** button.
20. To review a list of the files installed with the Mobile-Eyes VDM software, see *Appendix: Installation Files* on page 18.
21. Restart the system. You must restart the system before proceeding with the installation process.
The system restarts.

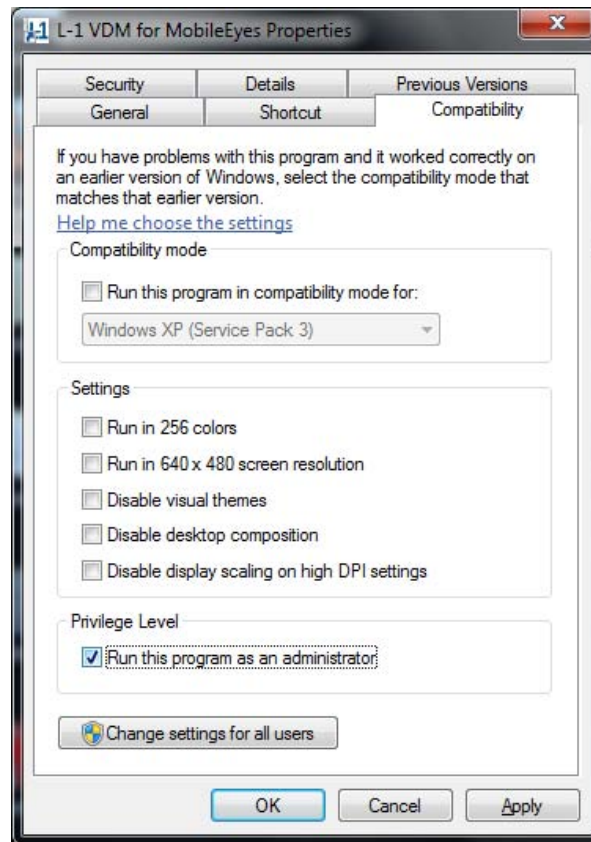
Update the Mobile-Eyes™ VDM Shortcut for Windows® 7

22. For Windows 7, navigate to your desktop and locate the shortcut icon for **L-1 for VDM Mobile-Eyes**:

- a. Right-click the icon and select **Properties**.

The L-1 VDM for MobileEyes Properties dialog box displays.

- b. Select the **Compatibility** tab.



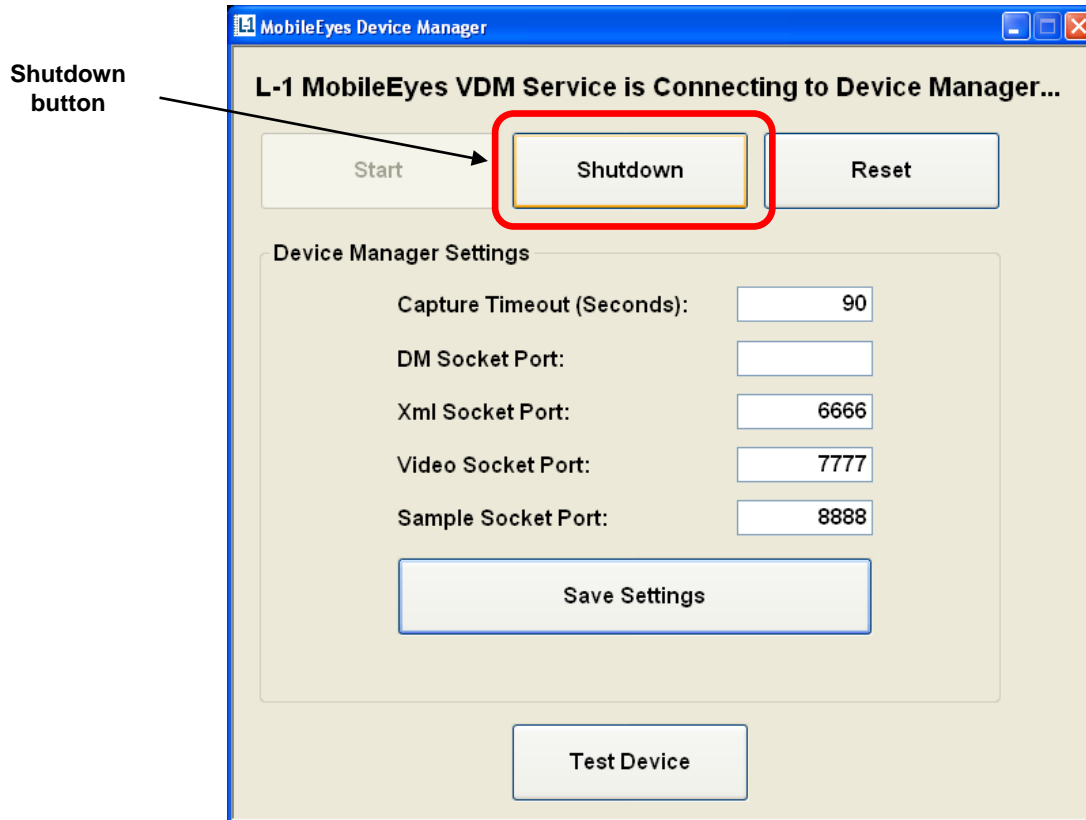
- c. Under **Privilege Level** at the bottom of the dialog box, select the checkbox for **Run this program as an administrator**.

- d. Select the **Apply** button, and then the **OK** button.

Start the Mobile-Eyes™ VDM Tool and Stop the Service

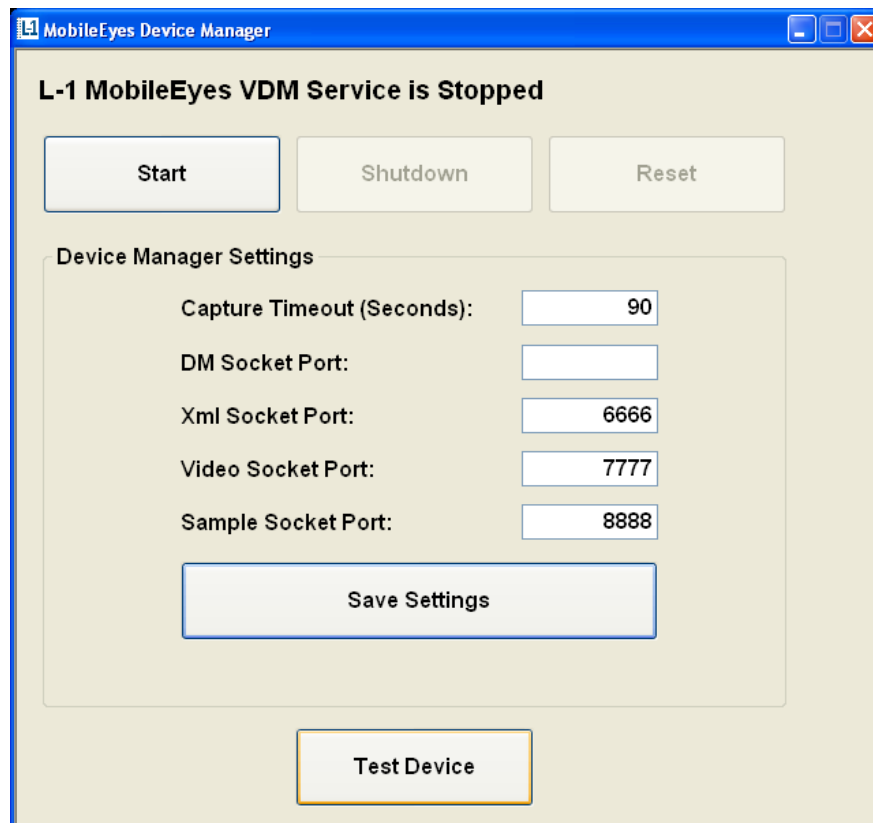
23. Locate and double-click the **L-1 VDM for Mobile Eyes** icon on your desktop to start the tool.

The Mobile-Eyes VDM Tool screen displays.



24. Select the **Shutdown** button to stop the L1 VDM Service.

The service stops.



25. Leave the Mobile-Eyes VDM Tool open and minimize the screen.

Connect the Mobile-Eyes™ Scanner to the PC

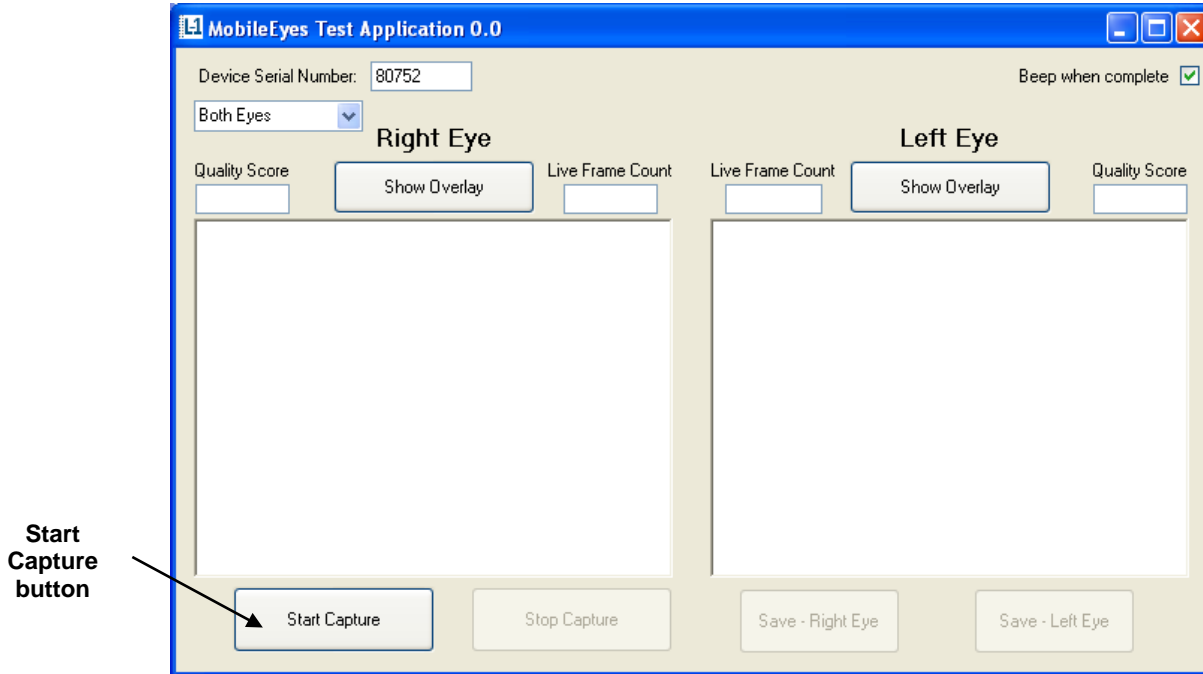
26. Plug in a Mobile-Eyes USB 2.0 scanner cable to a USB port.

27. If the New Hardware wizard displays on the PC, click the option for **Automatically detect the drivers & install.**

Initialize the Mobile-Eyes™ Scanner

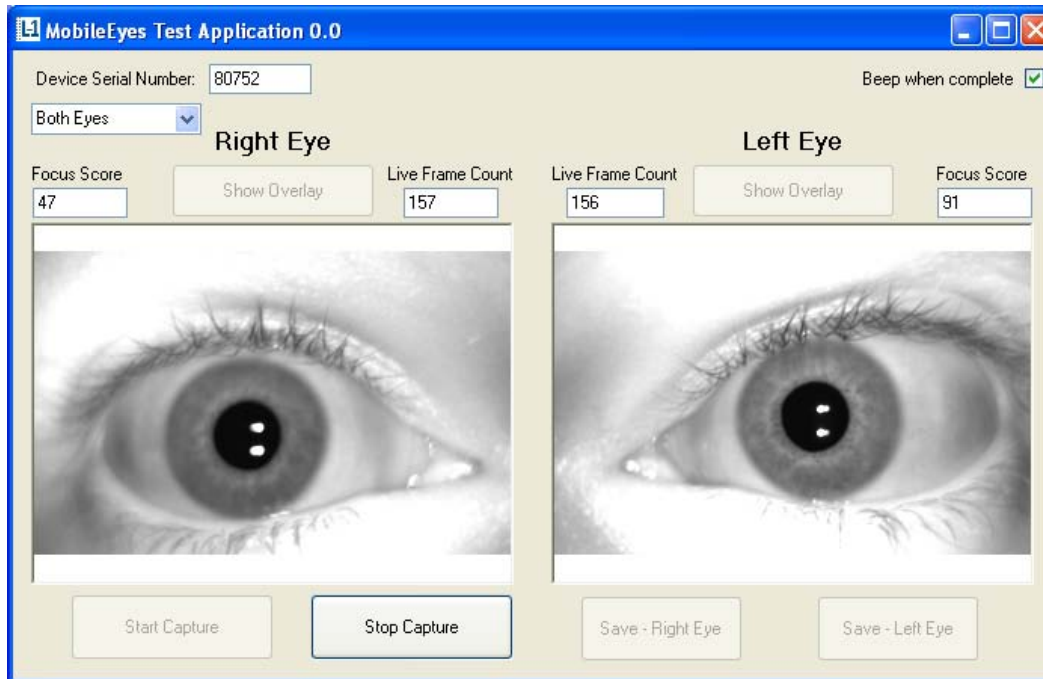
28. Return to the Mobile-Eyes VDM Tool and select the **Test Device** button.

The MobileEyes Test Application screen displays.



29. Select the **Start Capture** button.

Live images from the device display on the screen.



30. If the test subject is wearing glasses, ask him or her to remove the glasses.
31. Holding the Mobile-Eyes scanner, position yourself approximately 1-2 feet away from the front of the subject.
32. Lift the Mobile-Eyes scanner and point the curved side toward the subject's eyes.
33. Instruct the subject to look directly into the scanner lenses and open the eyes wide during the capturing process.
34. Look at the live video display on the MobileEyes Test application, and then move the scanner slowly toward the subject's eyes to bring the iris images into focus. Try to keep the irises centered in the video display.

The eyes typically come into focus when the device is about 2" from the subject's forehead, depending on the shape of the subject's head.
35. Continue moving the device just past the point of sharpest focus, which is the cue that the device is as close to the subject as it needs to be. Do not move closer than .75" from the subject's forehead.
36. If the iris images have not been captured yet, start moving the device slowly away from the subject's face along the same path.

NOTE: The Mobile-Eyes will usually capture the image on the first pass. If the image is not captured, you can use an alternating pass back away from the subject, and then another forward pass. If the eyes are properly centered in the frame, a second pass is usually not needed.

After the irises images are successfully captured, the streaming video stops.

37. If the iris images are not successfully captured, repeat steps 31-36 above.

The Mobile-Eyes VDM is validated, and the scanner should now function normally.

Restart the Service

38. From the Mobile-Eyes VDM Tool, select the **Start** button to restart the L-1 VDM service.

The service restarts.

39. Close the Mobile-Eyes VDM Tool.

3. Capturing Quality Irises

Capturing quality irises involves the following steps:

1. If the test subject is wearing glasses, ask him or her to remove the glasses.
2. Holding the Mobile-Eyes scanner, position yourself approximately 1-2 feet away from the front of the subject.
3. Lift the Mobile-Eyes scanner and point the curved side toward the subject's eyes.
4. Instruct the subject to look directly into the scanner lenses and open the eyes wide during the capturing process.
5. Look at the live video display on the enrollment workstation, and then move the scanner slowly toward the subject's eyes to bring the iris images into focus. Try to keep the irises centered in the video display.

The eyes typically come into focus when the device is about 2" from the subject's forehead, depending on the shape of the subject's head.

6. Continue moving the device just past the point of sharpest focus, which is the cue that the device is as close to the subject as it needs to be. Do not move closer than .75" from the subject's forehead.
7. If the iris images have not been captured yet, start moving the device slowly away from the subject's face along the same path.

NOTE: Mobile-Eyes will usually capture the image on the first pass. If the image is not captured, you can use an alternating pass back away from the subject, and then another forward pass. If the eyes are properly centered in the frame, a second pass is usually not needed.

After the irises images are successfully captured, the streaming video stops.

8. If the iris images are not successfully captured, repeat steps 2-7 above.

4. Troubleshooting

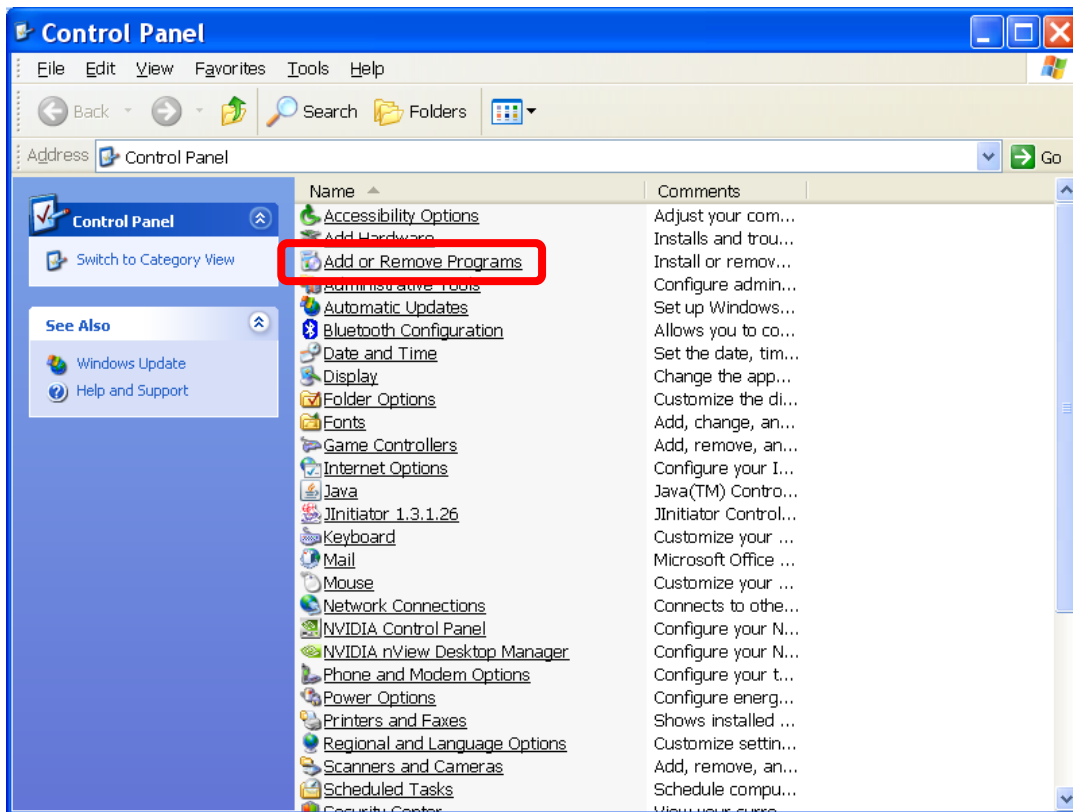
The following troubleshooting information is described in this section:

- *Uninstalling Mobile-Eyes™ VDM* (below)
- *UIDIA VDM Trouble Report Checklist* (page 17)

Uninstalling Mobile-Eyes™ VDM

To uninstall Mobile-Eyes VDM:

1. Ensure that the Mobile-Eyes scanner is unplugged from the PC.
2. In Windows, select the **Start → Control Panel** menu path.



3. In the Control Panel window, double-click **Add or Remove Programs**.
4. In the Add or Remove Programs window, select the Mobile-Eyes VDM program, and then select the **Remove** button.
5. Follow the instructions for uninstalling Mobile-Eyes VDM.
6. Restart the PC.

UIDIA VDM Trouble Report Checklist

Report all L-1 device or VDM issues to L1BDSupport@l1id.com with the subject header of “UIDAI Support - ” followed by a brief description of the problem. A Service Request will be opened and the appropriate Support and Engineering staff will provide a prompt response to either request further information or provide a suggested resolution.

To enable our support staff to provide you with the best possible service, please provide as much of the following information as you can:

1. Problem Component: AgileTP MobileEyes Both

2. Serial Number of Device

- S/N _____

3. Detailed Problem Description, including:

- Error messages (attach screenshots of visible errors or error messages if possible)
- Last functional step in capture process; what was happening, what was observed

- Approximate occurrence rate: One-time Intermittent Every time
- Steps to recreate, if possible

- Does it automatically recover? Yes No
- If No, what steps are required to recover?

4. Software Versions from \Control Panel\Programs and Features

AgileTP VDM: ____ MobileEyes VDM: ____ Application: ____

5. OS version & PC Make/Model – Attach My Computer\Properties screenshot?

6. Collect and attach all logs. Try to recreate the problem and then gather the logs.

Document the time of problem to aid log analysis. Collecting another set of logs after recovery could also be helpful.

AgileTP

- *.log in \Program Files\L1ID\AgileTP_VDM\
- *.log in \ProgramData\L1ID\TP-LSMULTI-SDK\

MobileEyes

- *.log in \Program Files\L1ID\MobileEyesVDM\logs

UIDAI DM and application

- *.log in \Program Files\UID Authority of India\Aadhaar Enrolment Client\

7. Collect and attach image file(s) if there is an image issue, screenshot if video issue.

Appendix: Installation Files

The following files are installed with the VDM program:

- ABISFoundationSDK_C#.dll
- Client.Entities.dll
- Client.Messages.dll
- Client.SocketAgents.dll
- Client.Sockets.Common.dll
- Client.SocketServer.dll
- Client.Utilities.dll
- config (directory)
- Daugman2007.dll
- devmgr.dll
- FndCore_8_7.dll
- FndImage_8_7.dll
- FndIris_8_7.dll
- FoundationBridge.dll
- Foundation_8_7.dll
- FPGATool.exe
- install.bat
- L1ID.MobileEyes.VDM.dll
- L1ID.MobileEyes.VDMGui.exe
- L1ID.MobileEyes.VDMGui.exe.config
- L1ID.MobileEyes.VDMService.exe
- L1ID.MobileEyes.VDMService.exe.config
- libexpat_1_95_8.dll
- libMobileEyes.dll
- libMobileEyes.Net.dll
- libMobileEyesAutoCapture.dll
- log4net.dll
- MEIrisConfig.txt
- MobileEyesTestApp.Net.exe
- olepro32.dll
- pthreadVC2.dll
- Reticam1_top_rev7.rpd
- Reticam1_top_rev8.rpd
- uninstall.bat
- xerces-c_2_8.dll