

# **SMARTCARD INSTALLATION GUIDE**

This document in three parts provides instructions to install your Smartcard reader, software and public keys onto your local PC. For further guidance please visit <u>www.lawscot.org.uk/smartcard</u> It assumes that you are **a user with administrative privileges to install software** onto your computer. If you are unsure, here's how to check if you have admin privileges: Go to **START** and select **CONTROL PANEL**, then select **USER ACCOUNTS**, then **MANAGE USER ACCOUNTS** and check which **GROUP** you are in. (If you have an IT support person or department, you may wish to contact them before proceeding.)

## Part One – Installing the Smartcard Reader

Before you can use a Smartcard, you must install a Smartcard reader on your host computer. The reader the Law Society of Scotland provided you with is compatible with Microsoft<sup>®</sup> Windows<sup>®</sup> and Apple<sup>®</sup> operating systems. Installation is usually done through plug-and-play when your computer detects the new device. However, you can also use other card-readers, either external ones or those built into a laptop. As long as they can read chipped cards, they should also function for the Smartcard. (NB: Gemalto is the exception to this. Gemalto card readers will unfortunately not work with the Smartcard.)

### Installing the Smartcard Reader - automatically

- 1. Shut down and turn off your computer
- 2. Attach the reader to an available USB port
- 3. Turn on your machine and log on as a user with the ability to install applications (admin privileges)
- 4. Ensure your computer is connected to the internet

### The reader is plug-and-play and will install all necessary drivers for use on its own.

The Smartcard reader is designed to be user-friendly and install necessary drivers by itself. If the Smartcard reader has been detected and installed properly, the LED illuminates. (green light on left-hand side display) Your Smartcard reader is now ready for use.

However, if you are using a host computer that does not have a plug and play feature (plugging in the reader does not prompt the computer to install the appropriate driver), you must install the driver manually.

### **Installing the Smartcard Reader - manually**

Installing the Smartcard reader manually requires to you to download the driver from the manufacturer's website <u>https://www.hidglobal.com/drivers</u> and install the software on your computer.

- 1. Shut down and turn off your computer
- 2. Attach the reader to an available USB port
- 3. Turn on your machine and log on as a user with the ability to install applications (admin privileges)

- 4. Ensure your computer is connected to the internet
- 5. Select the link above or cut & paste into a web browser
- 6. Enter the following details into the search filter options:

Brand: Omnikey

Product: Onmikey 3121 USB Card Reader

**OS**: Enter the operating system of your computer.

		Login	About Us	Search Site	٩
The Trusted Source for Secure Identity Solutions	Industries	Solutions	Products	Partners	Support &
Jse the dropdown menus below to find the drivers and downloads you wan You can also search by product or keyword.	ıt.				
OMNIKEY 3121 USB Card Reader 4	All OSs Linux Linux x64				
Reset All	MacOS X Win 2000/XP Win 2003 Serv	ar.			
Drivers	Win 2003 Serv Win 2003 Serv Win 98/ME	er x64			
	Win CE Windows 10 32 Windows 10 64	2-Bit 4-Bit			
OMNIKEY 512X, 532X, 1021, 3X21, 6121 PCSC FOR LINI	Windows 2000 Windows 7 Windows 7 x5/				
1100KCCIQ_11110X_1666-v4.2.o.tdr.92-417.77 KD	Windows 7 x64 Windows 8 Windows 8 x64	· 1			
Note: This is a BETA driver for evaluation only and has not been fu PCSC driver for OMNIKEY 1021, 3x21, 6121,512x, 532x v4.2.8 Relea	Windows 8.1 x Windows 8.1 x	32 64			
2016-06-08 Requirements: Linux i686, eglibc-2.11.3, libusb-1.0.8	Windows CE Windows Serve Windows Serve Windows Vista Windows Vista Windows XP	er 2008 er 2008 x64 x64			
	WinXP 64 Bit T WinXP x64 Edi	itanium tion			
OMNIKEY 512X, 532X, 1021, 3X21, 6121 PCSC FOR LINU	JX X86_64	00 400 2016			
ifdokccid_linux_x86_64-v4.2.8.tar.gz - <b>428.13 KB</b>		Lipux x64			
Note: This is a BETA driver for evaluation only and has not been fully qualifie PCSC driver for OMNIKEY 1021, 3x21, 6121, 512x, 532x v4.2.8 Release date: 2016-06-08 Requirements: Linux x86_64, eglibc-2.11.3, libusb-1.0.8		Dov	/NLOAD		
		DIRE	CT LINK		

7. **Double-click** the relevant driver (usually named "self-extracting archive") in the upcoming list to **download** the driver and **install** as per your operating system instructions.

# Part Two – Installing and using the Smartcard Manager

Once the Smartcard reader has been successfully installed, the next step is the Smartcard Manager. This is a small utility that allows you to interrogate and maintain what's on the chip of your Smartcard. The application is not required for applying the digital signature, but it is useful in the event that passcodes need changing or to confirm digital signatures. This tool will enable full maintenance and allow such functionality as:

- Changing & unlocking PIN & PUK codes
- Importing certificates
- View card information

The application is compatible with Microsoft<sup>®</sup> Windows<sup>®</sup> and Apple<sup>®</sup> operating systems and can be downloaded from the Law Society's website:

Microsoft® https://www.lawscot.org.uk/media/371803/smartcardwindowsmanager.zip

Apple<sup>®</sup> <u>http://www.lawscot.org.uk/media/9260/SmartcardMac.zip</u>

1. Click the **link** above and **open the file** (select the appropriate link for all Windows or Apple operating systems)

2. Run the software to Install (Please allow the BIT4ID application to be installed, if prompted)

- 3. Select a language English
- 4. Follow the on-screen instructions, and then click Next
- 5. Click I Agree to the License Agreement
- 6. Software will install automatically.

7. Click Finish to complete the installation. If requested to reboot your computer, select reboot now.

Failure to complete this step can result in the application not being correctly installed

8. The application is installed and will be available from the operating system programme menu

Installation Screenshots		
Step/ instruction	Image	
Step 1 - download	Windows Internet Explorer         What do you want to do with SmartcardWindows.zip?         Size: 16.7 MB         From: www.lawscot.org.uk         Open         The file won't be saved automatically.         Save         Save as         Cancel	

Step 2 – double-click to start installation	AppData + Local + Microsoft + Windows + Temporary Internet Files + Content.IE5 + L49WUZ10 + SmartcardWindows			
	Name Type           Name         Type           Image: State of the state	Compressed size Password Size Ra 17,139 KB No 17,148 KB 15		
Stop 2 - soloct language				
Step 5 – select language	Installer Language     \$3       Please select a language.       English       OK			
Step 4 – follow the instructions	Volversal Middleware 1.3.6.5 Setup Velcome to the U 1.3.6.5 Setup Wize This wizard will guide you to Universal Middleware 1.3.6 It is recommended that you before starting Setup. This relevant system files withou computer. Click Next to continue.	Iniversal Middleware ard through the installation of 1.5. close all other applications will make it possible to update ut having to reboot your		

Steps 5 & 6 – agree to the	4 Universal Middleware 1 365 Setup
License Agreement &	
Install	License Agreement Please review the license terms before installing Universal Middleware 1.3.6.5.
	Press Page Down to see the rest of the agreement.
	BIT4ID Software License Agreement NOTICE TO USER: PLEASE READ THIS AGREEMENT CAREFULLY. BY COPYING, INSTALLING OR USING ALL OR ANY PORTION OF THE SOFTWARE YOU ACCEPT ALL THE TERMS AND CONDITIONS OF THIS AGREEMENT, INCLUDING, IN PARTICULAR THE LIMITATIONS ON: USE If you accept the terms of the agreement, click the check box below. You must accept the agreement to install Universal Middleware 1.3.6.5. Click Install to start the installation. I accept the terms of the License Agreement Install System v1.0   
Step 7 – reboot the computer to finish the installation	Universal Middleware 1.3.6.5 Setup Installing Please wait while Universal Middleware 1.3.6.5 is being installed. Created uninstaller: C:\Program Files (x86)\Bit4id\Universal Middleware\uninst.exe Universal Middleware 1.3.6.5 Setup V Inversal Middleware 1.3.6.5 Setup V A system reboot is required to complete the installation. Do you want to restart now? Ves No Created uninstaller: C:\Program Files (x86)\Bit4id\Universal Middleware\uninst.exe Install System v1.0 Eack Close Cancel
The Smartcard Manager will be visible in the programme list. You can also create a shortcut on the screen.	Bit4id - Smart Card Manager Do Bit4id - Smart Card Manager

### **Using the Smartcard Manager**

The Smartcard Manager Application is a small utility that allows the Smartcard holder to interrogate and maintain their Smartcard. The application is not required for general usage, but used in the event that passcodes need changed, confirmation of digital signature information and a test that the Smartcard reader is working correctly.

Function/ Feature	Functionality Screenshot	
Application Launch program from program menu, desktop or ribbon	Bit4id - Smart Card Manager	Bit4id - Smart Card Manager
Main Screen	RITAID Card Manager	
Accessing all functions	File	
main screen	Tokens	Login
	Ø DSD [OMNIKEY AG Smart Card Reader USB 0]	Refresh
		Import
		Export
		Decat device
		Chance PIN
	Field Value	Change PUK
	Description DSD	Certificate View
	Manufacturer Bit4id	Register certificates
	Model DS2048 (LB) PIN status PIN is OK	Information
	PUK status PUK is OK Total memory 65536 Free memory N/A	<b>Ö</b> id
	Displays information about the software and middleware us	www.bit4id.com



Installation Step-by-step Guide 7



Installation Step-by-step Guide 8



Information Feature showing the version of the Smartcard Manager Application installed	Information
	Copyright 2013 Bit4id.com, All rights reserved. Card Manager (1.3.0) Informazioni Middleware
	Product Name: BIT4ID Universal Middleware ( 'bit4ipki.dll' ) Version: 1.3.6.5 Copyright: Bit4id - Copyright (C) 2004-2009 Company: Bit4id (http://www.bit4id.com) Description: Universal Middleware

# Part Three – Installing the Certificates, aka Public Keys

Public keys are required to ensure that the certificates reaching our computers have been correctly issued by the certification authority. The Smartcard certificate authority is Abogacía Certification Authority (ACA, operated by RedAbogacía) in Spain.

ACA is a member of the 'Microsoft Windows root certificate program' and further details can be found on the Microsoft <u>website</u>. As such public these public keys can come pre-installed in Windows based systems. However, it might be necessary to install these keys manually. As yet, ACA is not on the list of trusted root certificates that come pre-installed with Apple Operating Systems. Therefore, the Public Keys will have to be installed manually if you use a Mac.

In the event that your local computer does not have the public keys installed, you will need to complete the following steps. This can be done directly from the certificate.

### Step 1: To install the Smartcard Trusted Root Certificate Authority

Follow the steps below to install the Smartcard root certificate key – please note the screenshot may vary slightly depending on the version of Windows your local computer is using.

Installation Screenshots			
Step/ instruction	Image		
STEP 1 – Download and Open the zip file ACA Root Certificates on your local computer:	Download URL – https://www.lawscot.org.uk/media/374876/aca-root-certs.zip		
STEP 2 – Install "ACA Root" Double-click on the file to open the certificate. Select the option "Install Certificate"	Certificate		
STEP 4 – Certificate Import Wizard You can choose to store these certs on the PC directly, or just for the time you are using this particular machine (roaming profile). If you use that computer constantly anyway, use "Local Machine."	Certificate Import Wizard   Welcome to the Certificate Import Wizard   This wizard helps you copy certificates, certificate trust lists, and certificate revocation lists from your disk to a certificate store.   A certificate, which is issued by a certification authority, is a confirmation of your identity and contains information used to protect data or to establish secure network connections. A certificate store is the system area where certificates are kept.   Store Location <ul> <li>Current User</li> <li>Local Machine</li> </ul> To continue, dick Next.		

Installation Step-by-step Guide 11



### Step 2: To install the Smartcard Intermediate Certification Authority

Follow the steps below to install the Smartcard intermediate key – both ACA certificates (ACA Root and ACA\_CA2) are necessary.

Installation Screenshots			
Step/ instruction	Image		
STEP 2 – Install "ACA_CA2"	Certificate ×		
Devide alighter the file to serve	General Details Certification Path		
bouble-click on the file to open			
Select the option <b>"Install</b>			
Certificate"	Certificate Information		
	This certificate is intended for the following purpose(s):		
	Proves your identity to a remote computer     Fosures software came from software publisher		
	Protects software from alteration after publication     Protects e-mail messages		
	Ensures the identity of a remote computer		
	Allows data to be signed with the current time     Pefer to the certification authority's statement for details		
	Issued to: ACA ROOT		
	Issued by: ACA ROOT		
	Valid from 27/05/2016 to 27/05/2041		
	Install Certificate Issuer Statement		
	OK		
STEP 4 – Certificate Import	Catificate lange t Minord		
Wizard	Sertificate import wizard		
You can choose to store these			
certs on the PC directly, or just	Welcome to the Certificate Import Wizard		
for the time you are using this			
particular machine (roaming	This wizard helps you copy certificates, certificate trust lists, and certificate revocation		
profile). If you use that	lists from your disk to a certificate store.		
use "Local Machine."	A certificate, which is issued by a certification authority, is a confirmation of your identity and contains information used to protect data or to establish secure network consisting A certificate atom is the author area where certificates are least		
	connections. A cerunicate store is the system area where cerunicates are kept.		
	Store Location		
	Current User		
	To continue, dick Next.		
	Next Cancel		

<b>STEP 5</b> - This certificate is stored automatically. You let Windows select where:	Certificate Store Certificate stores are system areas where certificates are kept.
	Windows can automatically select a certificate store, or you can specify a location for the certificate.
	<ul> <li>Automatically select the certificate store based on the type of certificate</li> </ul>
	O Place all certificates in the following store
	Carlificata stara
STEP 7 – Click Next, and then Finish.	