



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 www.lawscot.org.uk/smartcard 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® Windows® and Apple® 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 <https://www.hidglobal.com/drivers> 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.

Use the dropdown menus below to find the drivers and downloads you want.
You can also search by product or keyword.

OMNIKEY 3121 USB Card Reader

Reset All

Drivers

OMNIKEY 512X, 532X, 1021, 3X21, 6121 PCSC FOR LINUX
ifdokccid_linux_i686-v4.2.8.tar.gz - 417.77 KB

Note: This is a BETA driver for evaluation only and has not been fully qualified.
PCSC driver for OMNIKEY 1021, 3x21, 6121, 512x, 532x v4.2.8 Release date: 2016-06-08 Requirements: Linux i686, eglibc-2.11.3, libusb-1.0.8

OMNIKEY 512X, 532X, 1021, 3X21, 6121 PCSC FOR LINUX X86_64
ifdokccid_linux_x86_64-v4.2.8.tar.gz - 428.13 KB

Note: This is a BETA driver for evaluation only and has not been fully qualified.
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

08 Jun 2016

Linux x64

DOWNLOAD

DIRECT 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:

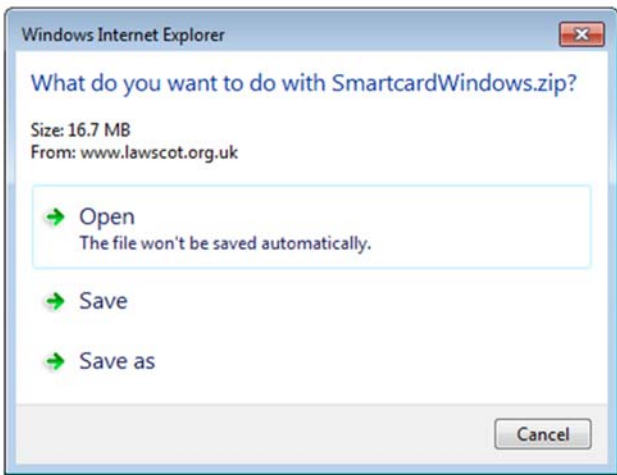
- Changing & unlocking PIN & PUK codes
- Importing certificates
- View card information

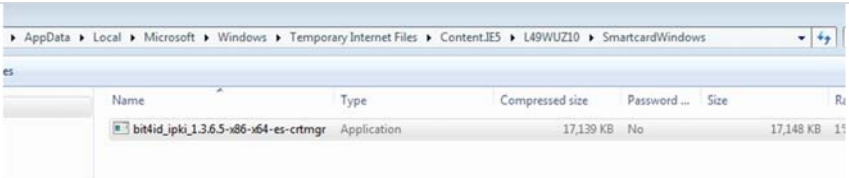


The application is compatible with Microsoft® Windows® and Apple® operating systems and can be downloaded from the Law Society's website:

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

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

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

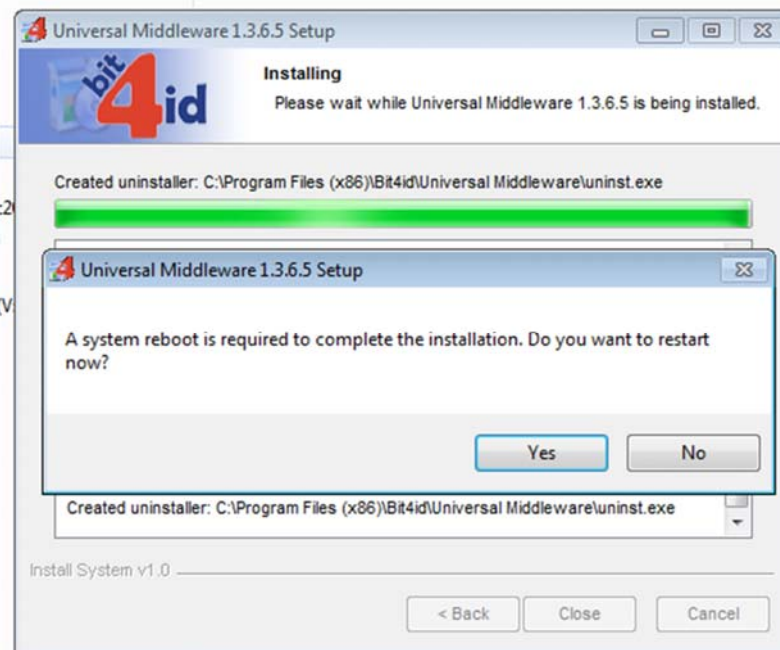
Installation Screenshots	
Step/ instruction	Image
Step 1 - download	

Step 2 – double-click to start installation	 <p>The screenshot shows a Windows Explorer window with the address bar displaying the path: AppData > Local > Microsoft > Windows > Temporary Internet Files > Content.IE5 > L49WUZ10 > SmartcardWindows. The file list shows a single file named 'bit4id_ipki_1.3.6.5-x86-x64-es-crtmgr' of type 'Application', with a compressed size of 17,139 KB and a size of 17,148 KB.</p>
Step 3 – select language	 <p>The screenshot shows a dialog box titled 'Installer Language'. It contains the text 'Please select a language.' and a dropdown menu with 'English' selected. There are 'OK' and 'Cancel' buttons at the bottom.</p>
Step 4 – follow the instructions	 <p>The screenshot shows the 'Universal Middleware 1.3.6.5 Setup' wizard. The title bar reads 'Universal Middleware 1.3.6.5 Setup'. The main window has a blue header with the 'bit4id' logo. The text reads: 'Welcome to the Universal Middleware 1.3.6.5 Setup Wizard'. Below this, it says: 'This wizard will guide you through the installation of Universal Middleware 1.3.6.5.' and 'It is recommended that you close all other applications before starting Setup. This will make it possible to update relevant system files without having to reboot your computer.' At the bottom, there are 'Next >' and 'Cancel' buttons.</p>

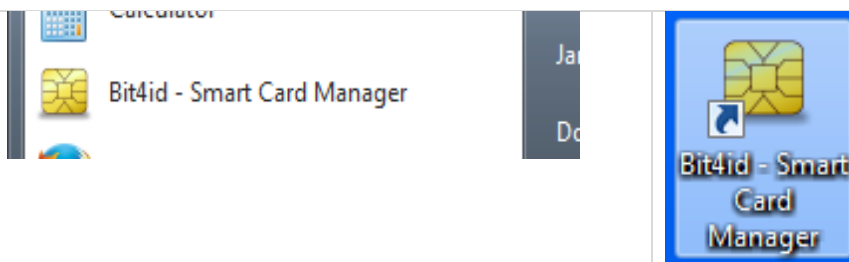
Steps 5 & 6 – agree to the License Agreement & Install



Step 7 – reboot the computer to finish the installation

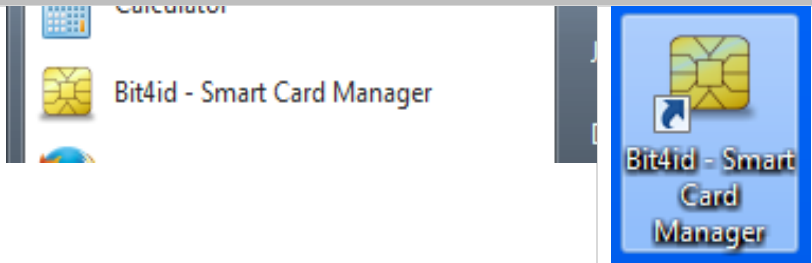
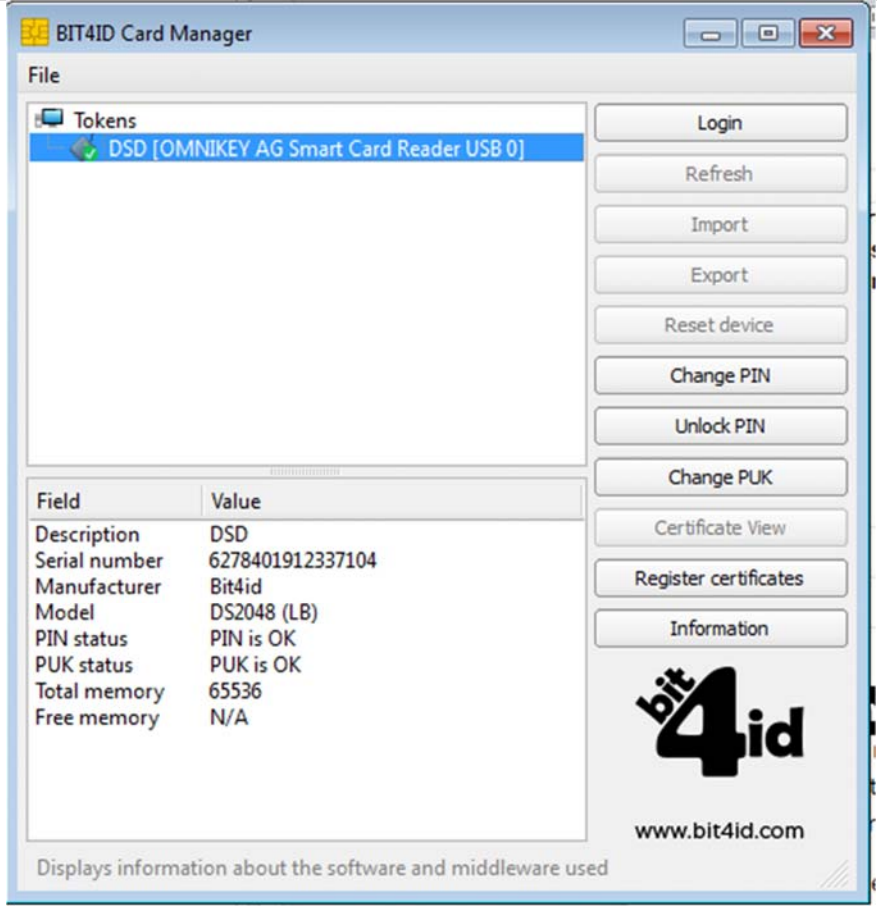


The Smartcard Manager will be visible in the programme list. You can also create a shortcut on the screen.



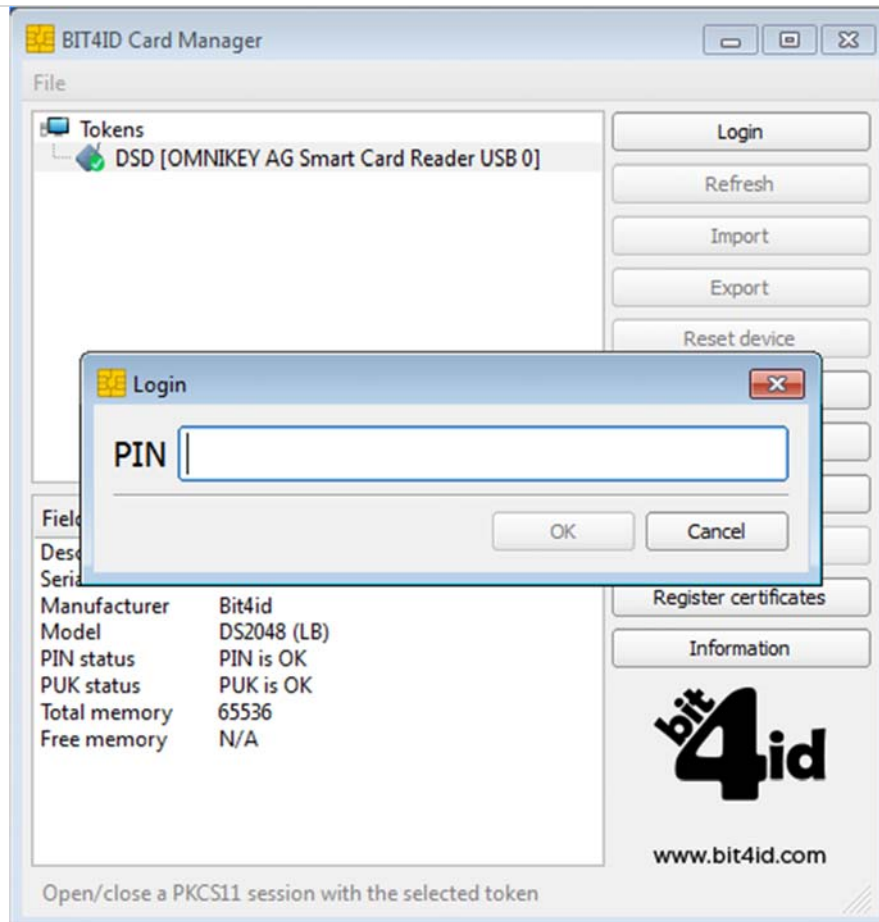
Using the Smartcard Manager

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.

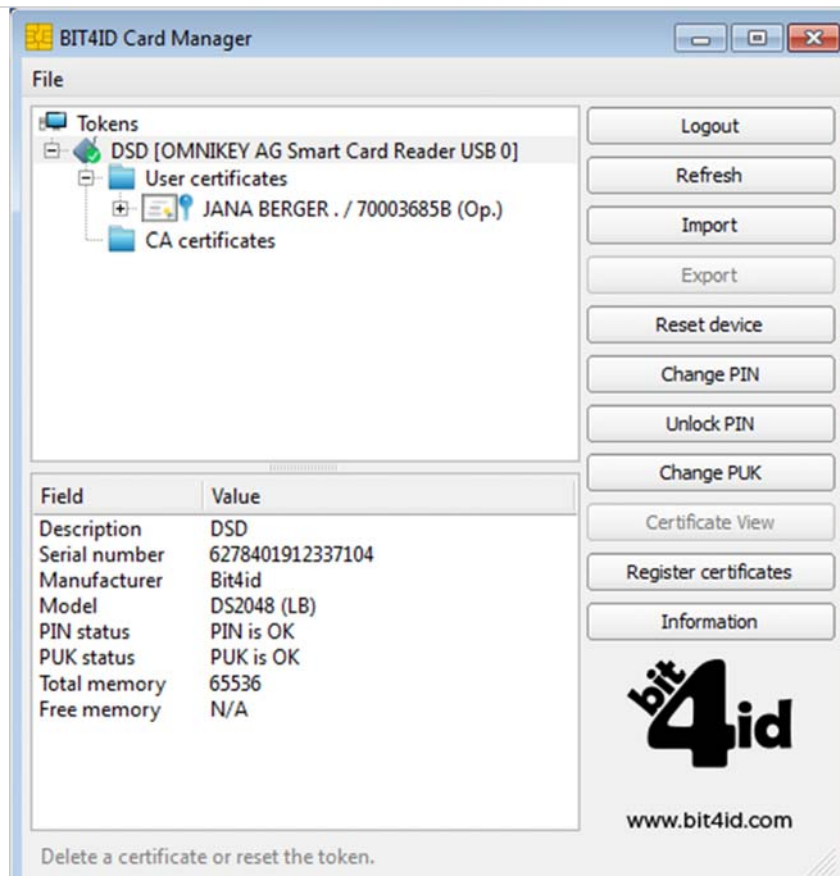
Function/ Feature	Functionality Screenshot																		
Application Launch program from program menu, desktop or ribbon																			
Main Screen Accessing all functions and features from the main screen	 <table border="1"> <thead> <tr> <th>Field</th><th>Value</th></tr> </thead> <tbody> <tr> <td>Description</td><td>DSD</td></tr> <tr> <td>Serial number</td><td>6278401912337104</td></tr> <tr> <td>Manufacturer</td><td>Bit4id</td></tr> <tr> <td>Model</td><td>DS2048 (LB)</td></tr> <tr> <td>PIN status</td><td>PIN is OK</td></tr> <tr> <td>PUK status</td><td>PUK is OK</td></tr> <tr> <td>Total memory</td><td>65536</td></tr> <tr> <td>Free memory</td><td>N/A</td></tr> </tbody> </table> <p>Displays information about the software and middleware used</p> <p>bit4id www.bit4id.com</p>	Field	Value	Description	DSD	Serial number	6278401912337104	Manufacturer	Bit4id	Model	DS2048 (LB)	PIN status	PIN is OK	PUK status	PUK is OK	Total memory	65536	Free memory	N/A
Field	Value																		
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Model	DS2048 (LB)																		
PIN status	PIN is OK																		
PUK status	PUK is OK																		
Total memory	65536																		
Free memory	N/A																		

Accessing Manager functions

Before you can use any of the functions of your Smartcard manager, you need to log in by entering your PIN. This serves as a security feature to ensure no one else is tampering with your Smartcard and QES.

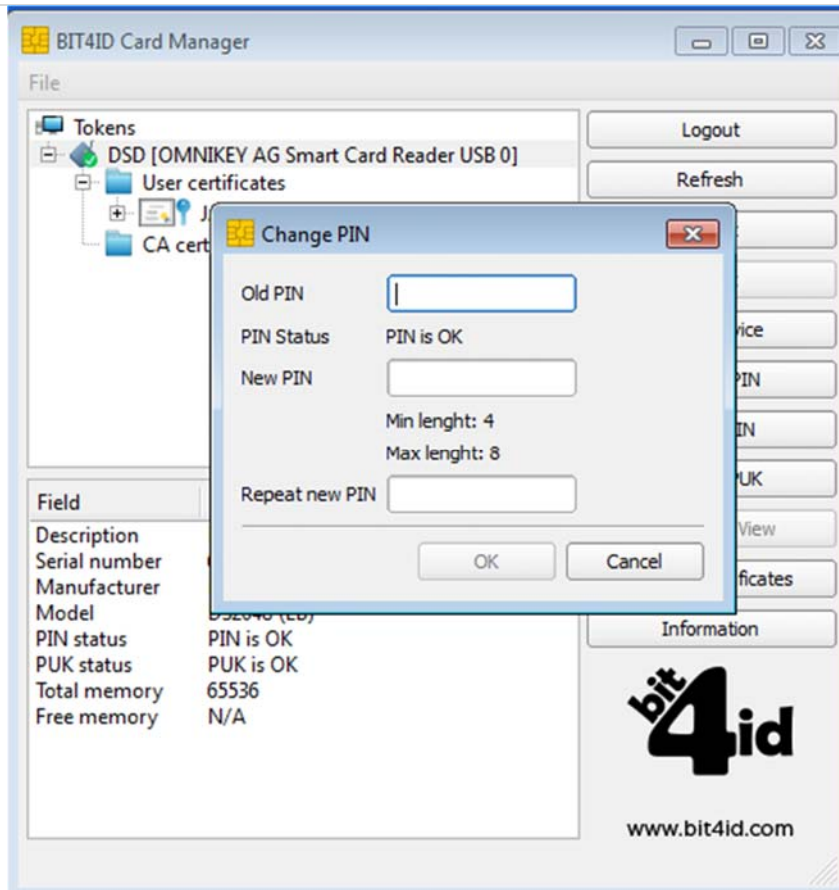


Once you have logged in, all information stored on the card will become visible.

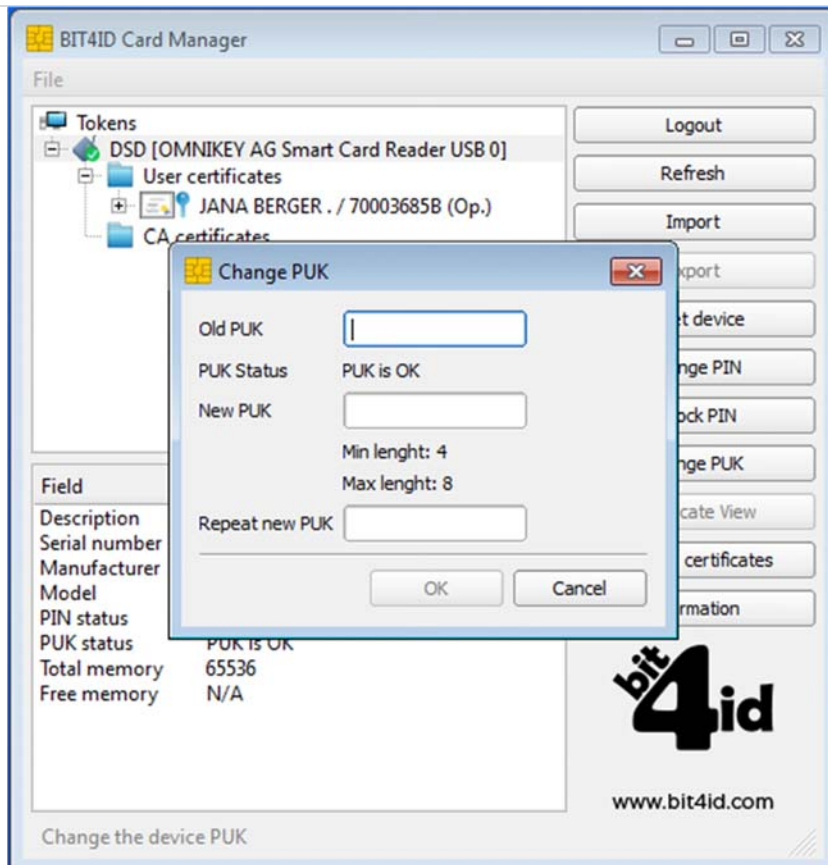


Change PIN

Function for changing the Smartcard PIN

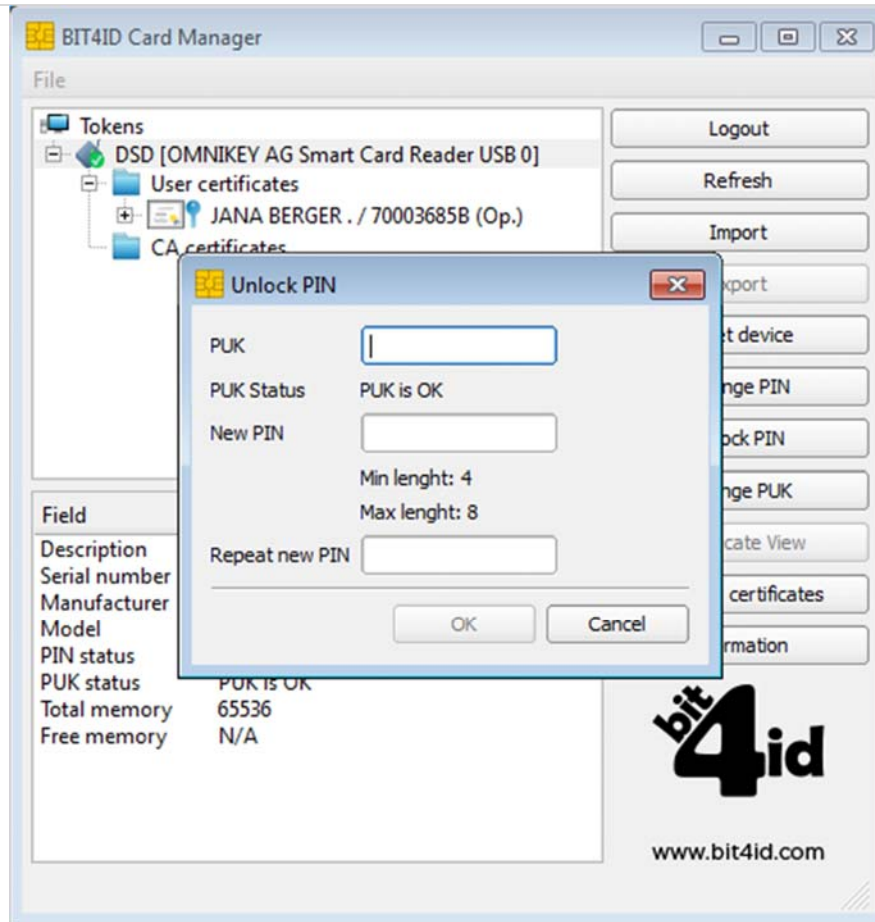
**Change PUK**

Function for changing the Smartcard PUK

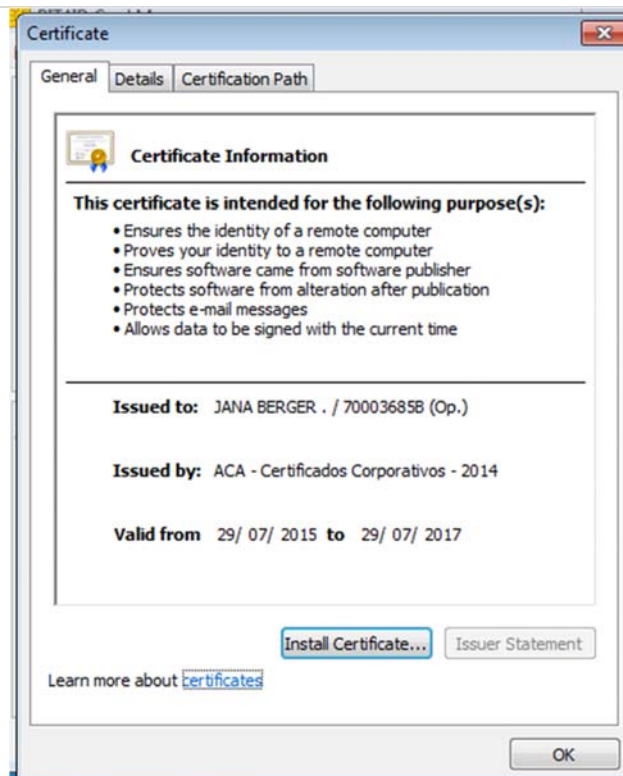


Unlock PIN

Function for using the Smartcard's PUK to unblock a forgotten or compromised PIN

**Certificate View**

Feature for viewing the list of digital certificates on the Smartcard



Information

Feature showing the version of the Smartcard Manager Application installed



Part Three – Installing the Certificates, aka Public Keys

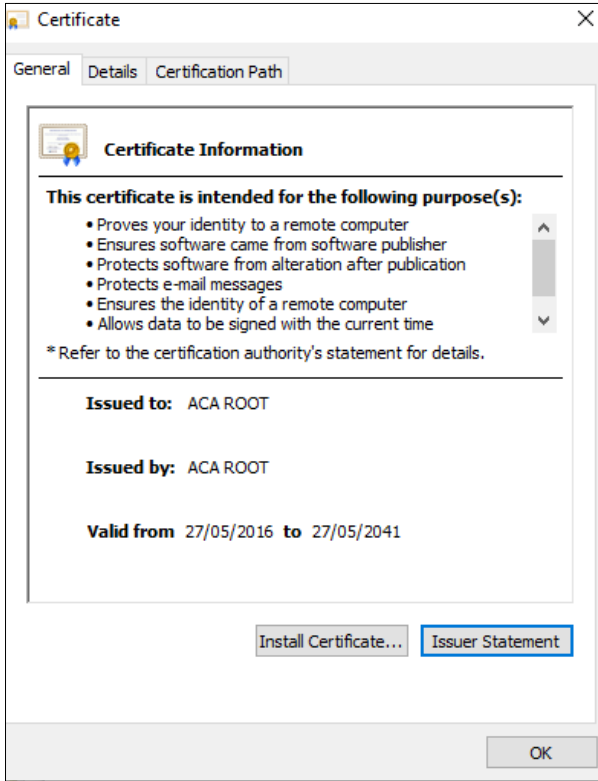
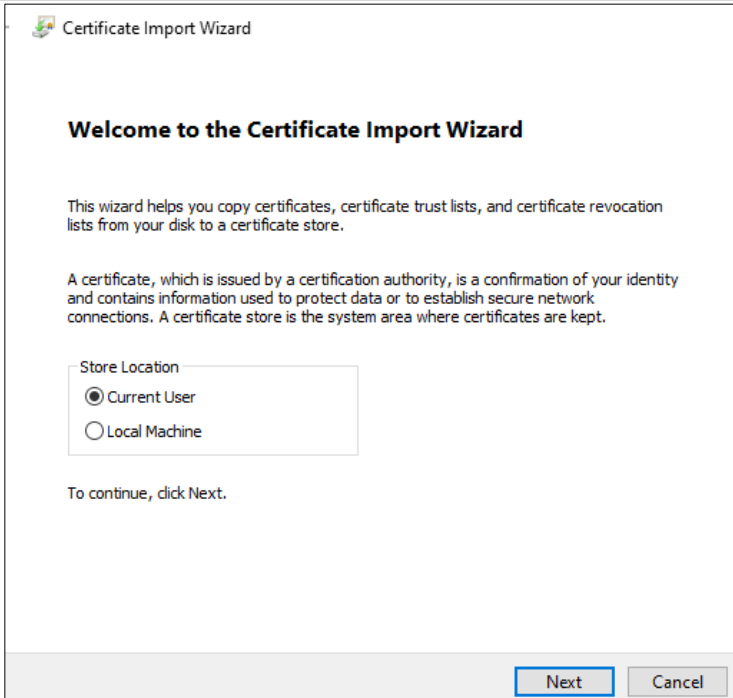
Public keys are required to ensure that the certificates reaching our computers have been correctly issued by the certification authority. The Smartcard certificate authority is Abogacía Certification Authority (ACA, operated by RedAbogacía) in Spain.

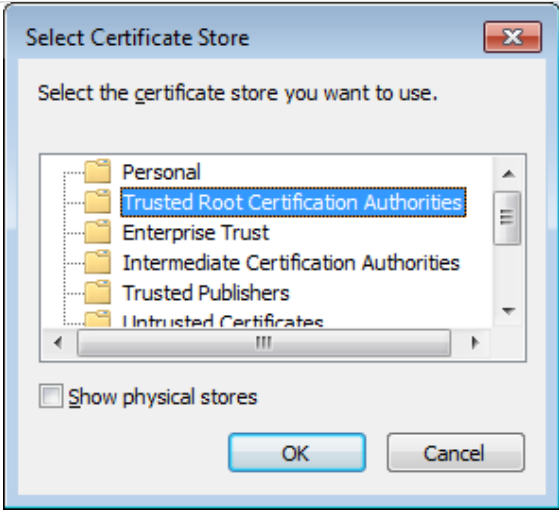
ACA is a member of the 'Microsoft Windows root certificate program' and further details can be found on the Microsoft [website](#). As such public these public keys can come pre-installed in Windows based systems. However, it might be necessary to install these keys manually. As yet, ACA is not on the 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

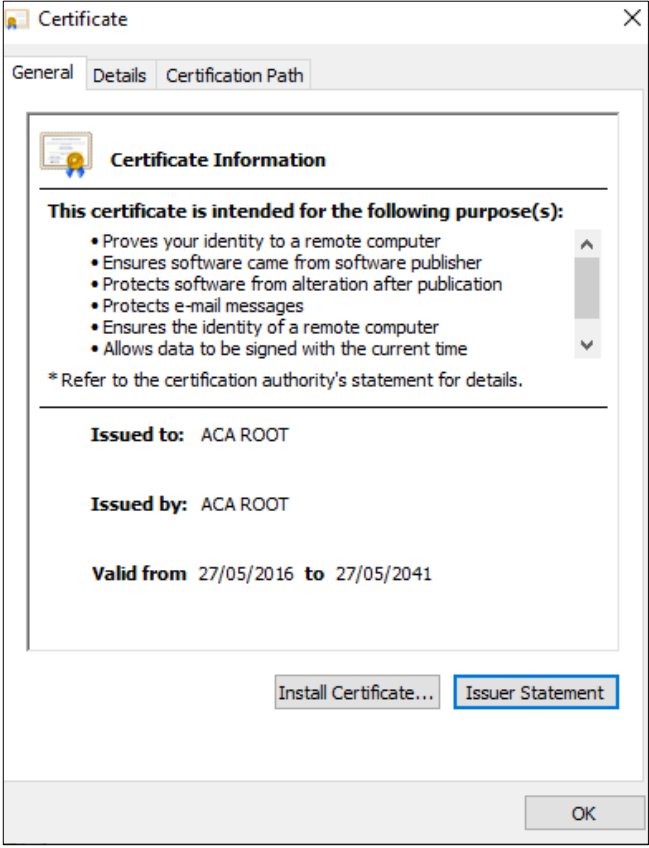
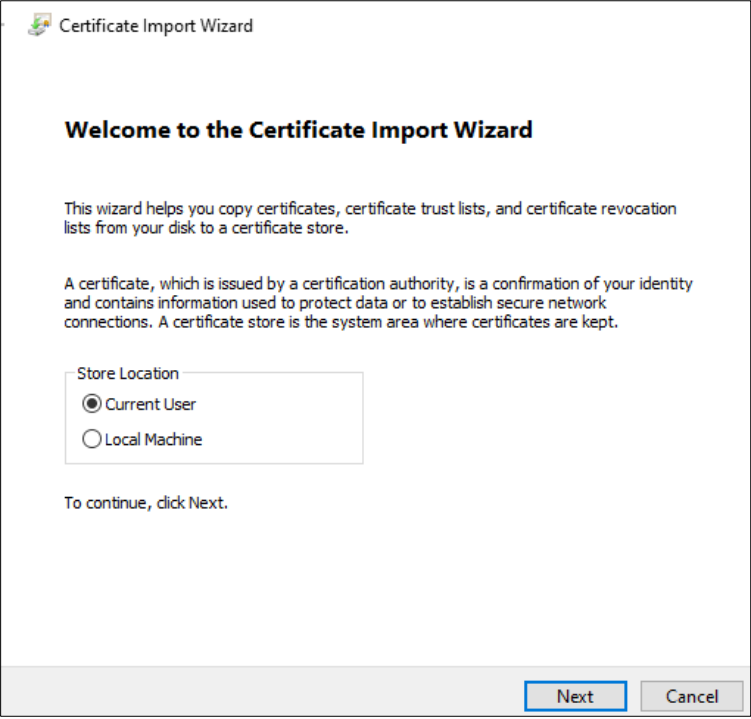
Follow the steps below to install the Smartcard root certificate key – please note the screenshot may vary slightly depending on the version of Windows your local computer is using.

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...”	
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.”	

<p>STEP 5 - Select the option “Place all certificates in the following store” and click browse</p>	<div data-bbox="654 163 1393 531"> <p>Certificate Store</p> <p>Certificate stores are system areas where certificates are kept.</p> <p>Windows can automatically select a certificate store, or you can specify a location for the certificate.</p> <p> <input type="radio"/> Automatically select the certificate store based on the type of certificate <input checked="" type="radio"/> Place all certificates in the following store </p> <p>Certificate store:</p> <div data-bbox="743 447 1338 485"> <input type="text"/> <input type="button" value="Browse..."/> </div> </div>
<p>STEP 6 - Select “Trusted Root Certification Authorities” and click OK</p>	
<p>STEP 7 – Click Next, and then Finish.</p>	

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.

Step/ instruction	Installation Screenshots
<p>STEP 2 – Install “ACA_CA2”</p> <p>Double-click on the file to open the certificate. Select the option “Install Certificate...”</p>	
<p>STEP 4 – Certificate Import Wizard</p> <p>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.”</p>	

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