

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 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.)

The Smartcard reader functionality will **not** be available through the Mac-native Safari web browser. To install reader, manager, and certificates, you will have to utilise Firefox. Please be aware that Java is also necessary for the Smartcard signature to work.

Installing Firefox and Java

Due to Safari's incompatibility, Firefox will have to be used to install the necessary components. Java is a widely used software tool in everyday applications.

Step 1: Install Firefox

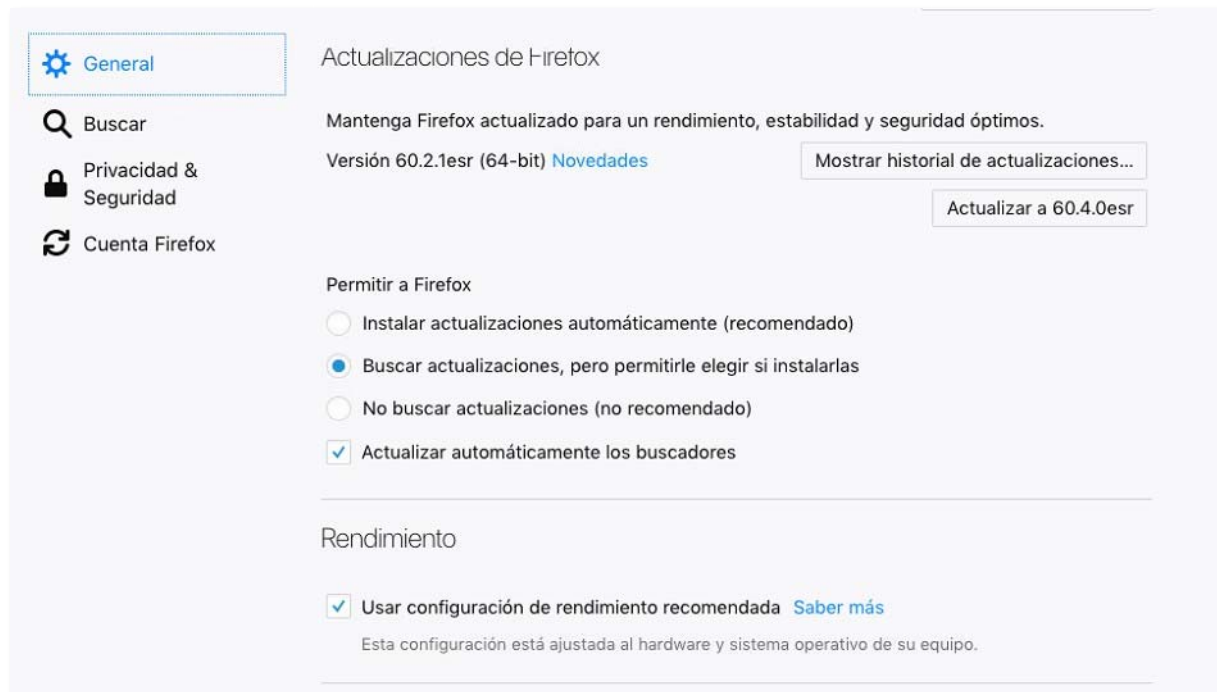
Download the application from: <http://getfirefox.com/>

To start the installation, find the file with extension **.dmg** which you have downloaded and **double-click** on it (at which point, the file navigator and the applications folder will appear). Drag the icon to the applications folder and drop it there.



To block automatic updates to Firefox, which can interfere with our systems, we recommend that you deactivate this:

Firefox -> Options -> General (Allow Firefox to)



Step 2: Installing Java

First, **check** that JAVA is installed using this link www.java.com. The website will perform a quick scan (non-invasive, this is safe) to see whether or not Java is already installed and if so, which version.

If it is not installed, **download** it from the following link:

<https://www.oracle.com/technetwork/java/javase/downloads/jdk8-downloads-2133151.html>

Java SE Development Kit 8u191- > Choose "MAC OS X".

Java SE Development Kit 8 Downloads

Thank you for downloading this release of the Java™ Platform, Standard Edition Development Kit (JDK™). The JDK is a development environment for building applications, applets, and components using the Java programming language.

The JDK includes tools useful for developing and testing programs written in the Java programming language and running on the Java platform.

See also:

- [Java Developer Newsletter](#): From your Oracle account, select **Subscriptions**, expand **Technology**, and subscribe to **Java**.
- [Java Developer Day hands-on workshops \(free\) and other events](#)
- [Java Magazine](#)

JDK 8u191 checksum

JDK 8u192 checksum

Java SE Development Kit 8u191

You must accept the [Oracle Binary Code License Agreement for Java SE](#) to download this software.

Thank you for accepting the Oracle Binary Code License Agreement for Java SE; you may now download this software.

Product / File Description	File Size	Download
Linux ARM 32 Hard Float ABI	72.97 MB	jdk-8u191-linux-arm32-vfp-hflt.tar.gz
Linux ARM 64 Hard Float ABI	69.92 MB	jdk-8u191-linux-arm64-vfp-hflt.tar.gz
Linux x86	170.89 MB	jdk-8u191-linux-i586.rpm
Linux x86	185.69 MB	jdk-8u191-linux-i586.tar.gz
Linux x64	167.99 MB	jdk-8u191-linux-x64.rpm
Linux x64	182.87 MB	jdk-8u191-linux-x64.tar.gz
Mac OS X x64	245.92 MB	jdk-8u191-macosx-x64.dmg
Solaris SPARC 64-bit (SVR4 package)	133.04 MB	jdk-8u191-solaris-sparcv9.tar.Z
Solaris SPARC 64-bit	94.28 MB	jdk-8u191-solaris-sparcv9.tar.gz
Solaris x64 (SVR4 package)	134.04 MB	jdk-8u191-solaris-x64.tar.Z
Solaris x64	92.13 MB	jdk-8u191-solaris-x64.tar.gz
Windows x86	197.34 MB	jdk-8u191-windows-i586.exe
Windows x64	207.22 MB	jdk-8u191-windows-x64.exe

Double-click the installer and follow the instructions (Next -> Next -> Next -> Finish).



Installing the Smartcard reader

If your computer does not recognise the reader automatically, you might have to install the driver manually. Installing the Smartcard reader manually requires 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 the Firefox 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.

Brand: OMNIKEY **Product:** 3121 USB Card Reader

OS: All OSs, Linux x64, Linux x64, MacOS X, Win 2000/XP, Win 2003 Server, Win 2003 Server x64, Win 98/ME, Win CE, Windows 10 32-Bit, Windows 10 64-Bit, Windows 2000, Windows 7, Windows 7 x64, Windows 8, Windows 8 x64, Windows 8.1 x32, Windows 8.1 x64, Windows CE, Windows Server 2008, Windows Server 2008 x64, Windows Vista, Windows Vista x64, Windows XP, WinXP 64 Bit Titanium, WinXP x64 Edition

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

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

The Smartcard Reader is necessary for your card and your computer to “talk” to each other. The Manager Application is a small utility that allows you to interrogate and maintain the Smartcard. The application is not required for general usage, but used in the event that passcodes need changing or to confirm a digital signatures. This tool will enable full maintenance of the Smartcard and allow such functionality as:

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

Download the following driver “*Instaladores TS2048 Y JS*”:

https://www.abogacia.es/repositorio/acadescarga/TS2048_Mac.zip

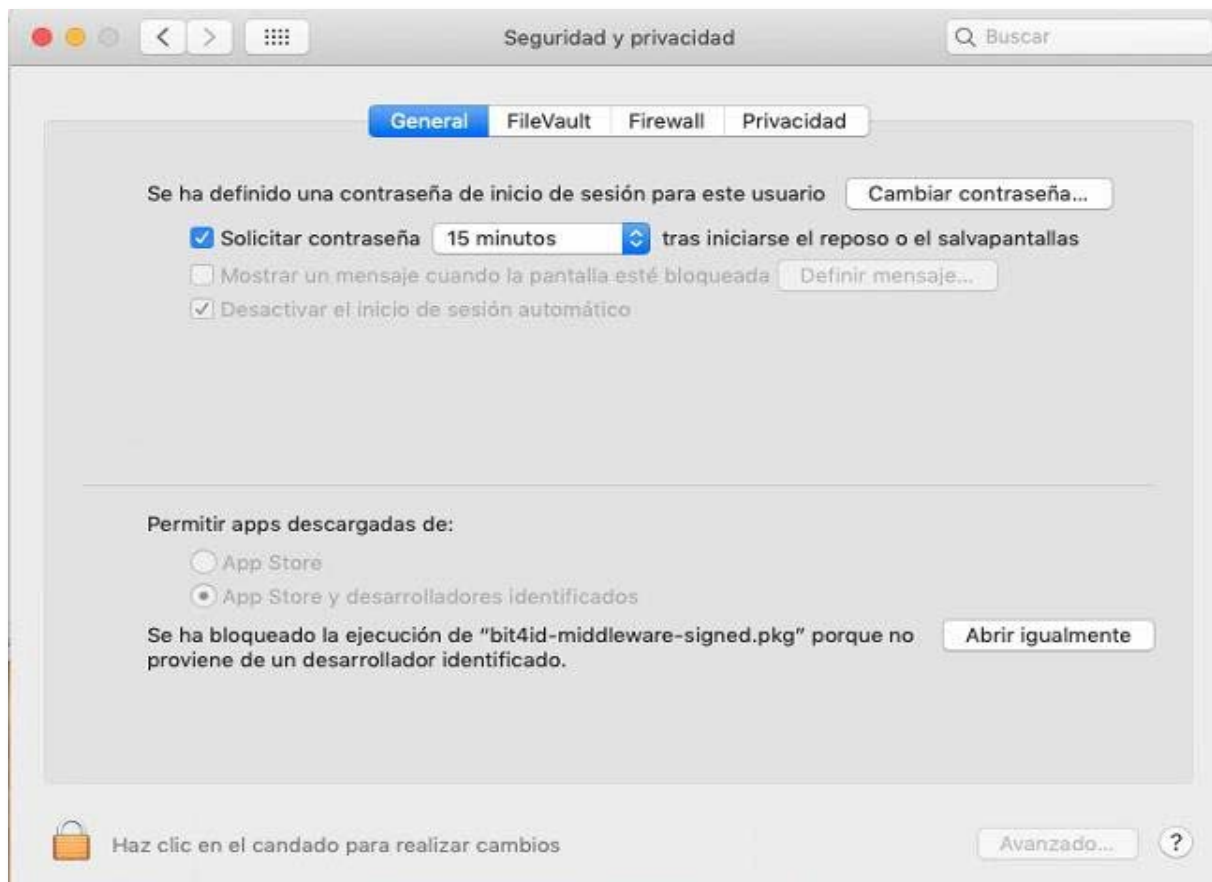
Once you have downloaded the driver, your system may not allow you to run the installer, for security reasons:



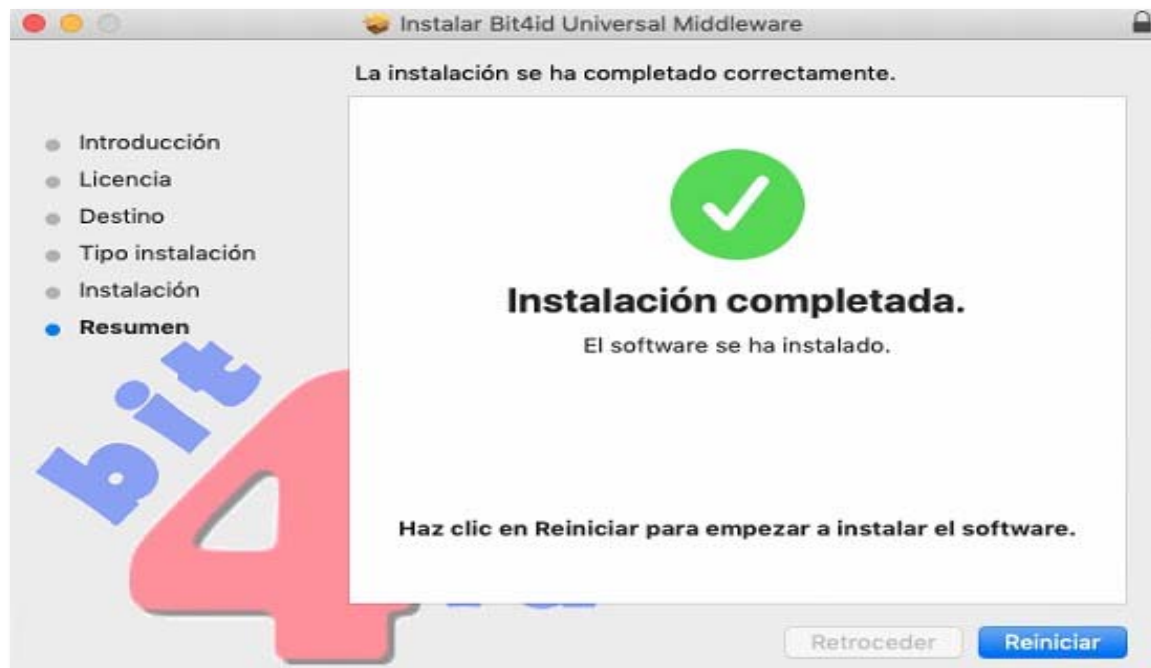
To overcome this, hold down the Ctrl key and double-click the package.



If this does not work for you, you need to go to [System Setup > Privacy and Security > General](#) and run the installer which has been blocked (**Open Anyway**), or else, change the configuration (**App Store and Authenticated Publishers**) to permit you to run the installer.



Choose one of these routes then continue the installation through all the screens until the installation completes – **click** on “Restart” to install the software:



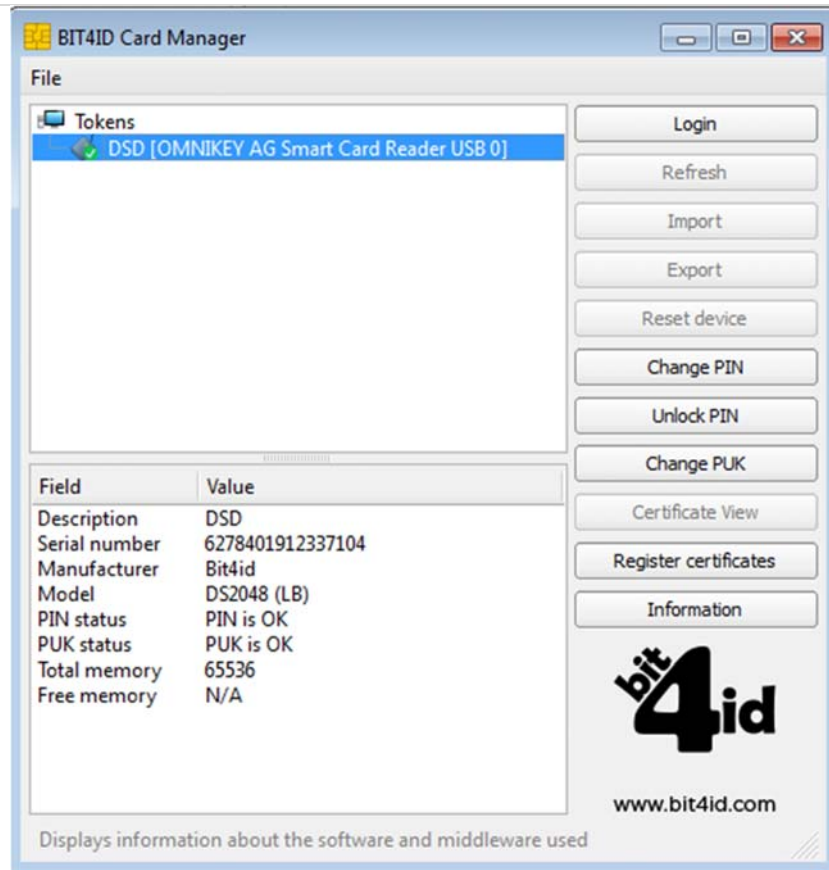
Using the Smartcard Manager

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	

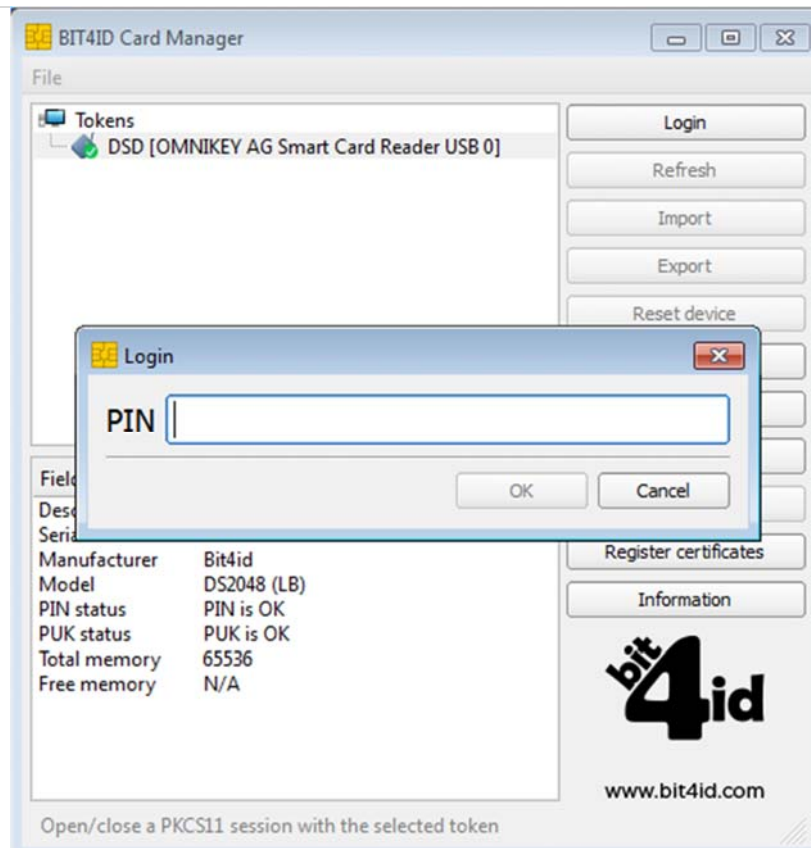
Main Screen

Accessing all functions and features from the main screen

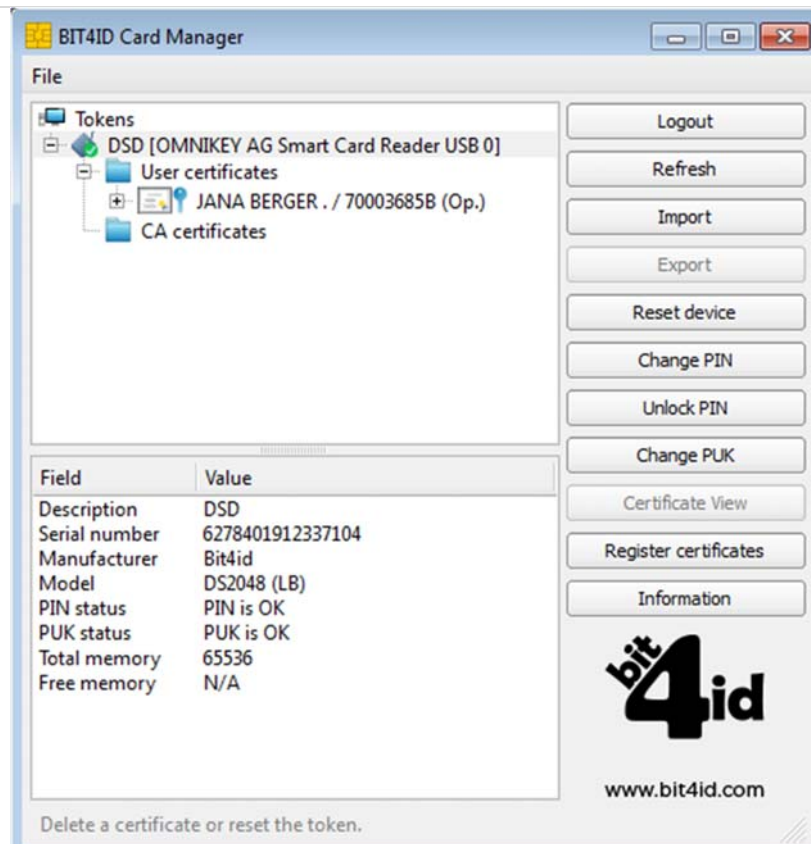


Accessing Manager functions

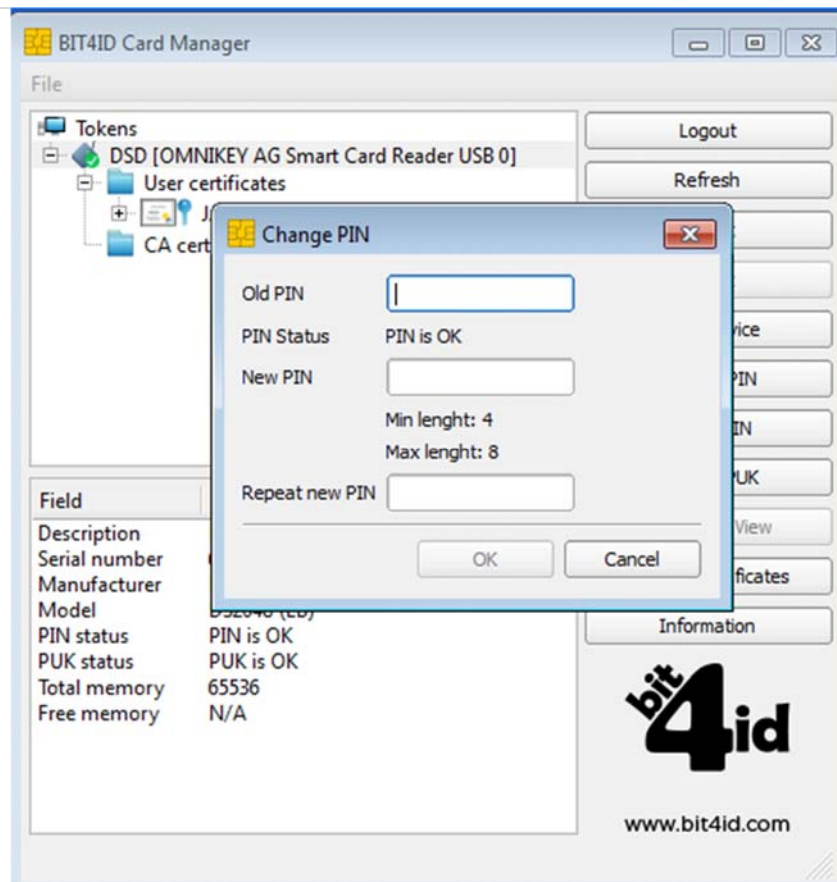
Before you can use any of the functions of your Smartcard manager, you need to log in by entering your PIN. This serves as a security feature to ensure no one else is tampering with your Smartcard and QES.



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

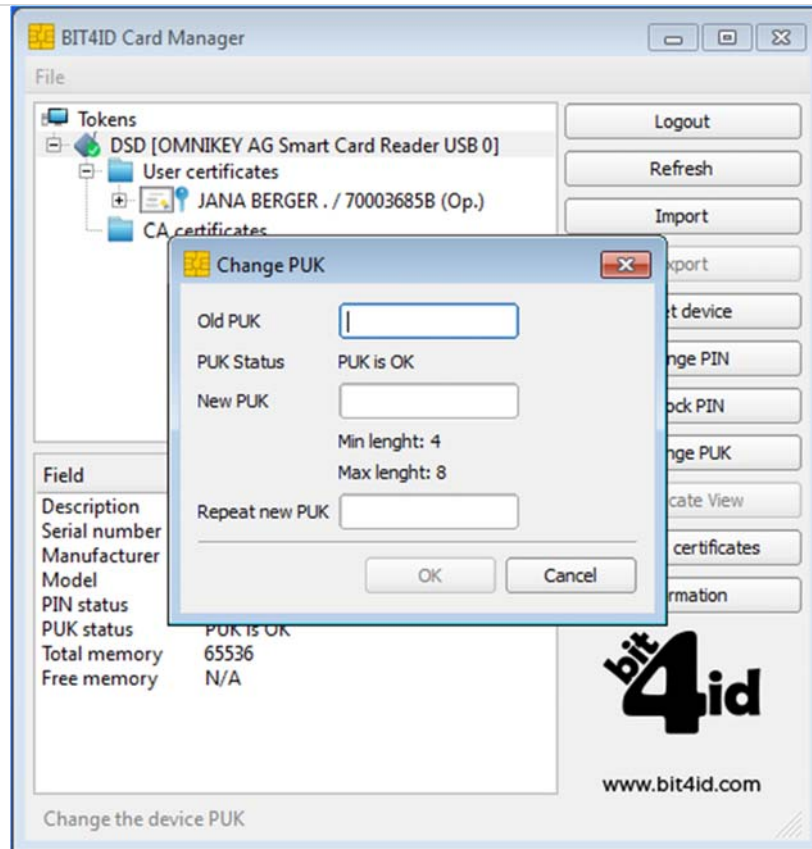


Change PIN
Function for changing the Smartcard PIN



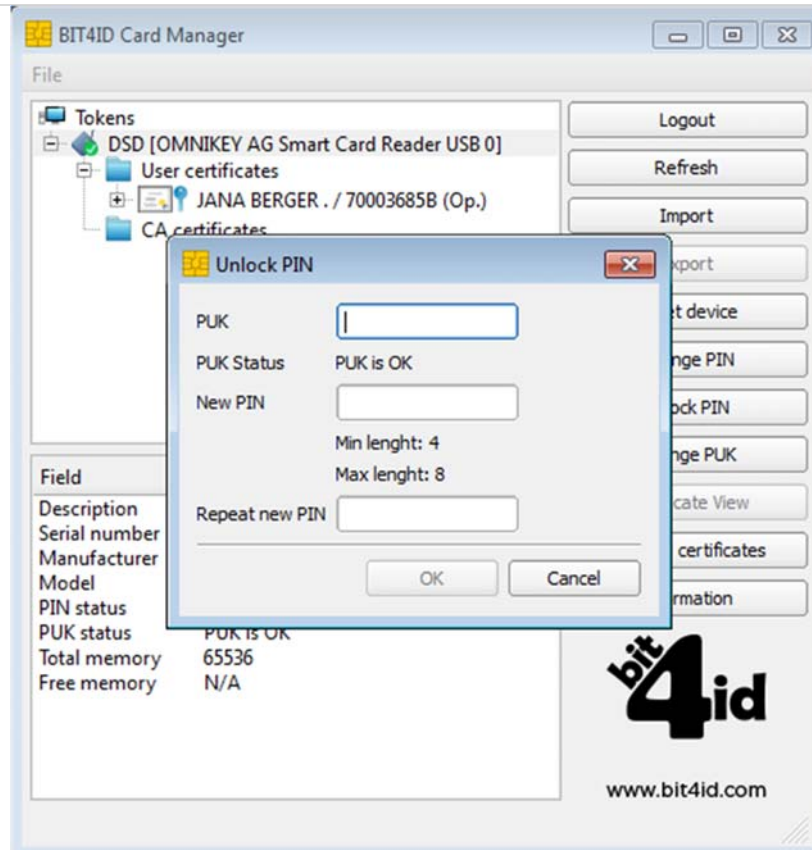
Change PUK

Function for changing the Smartcard PUK



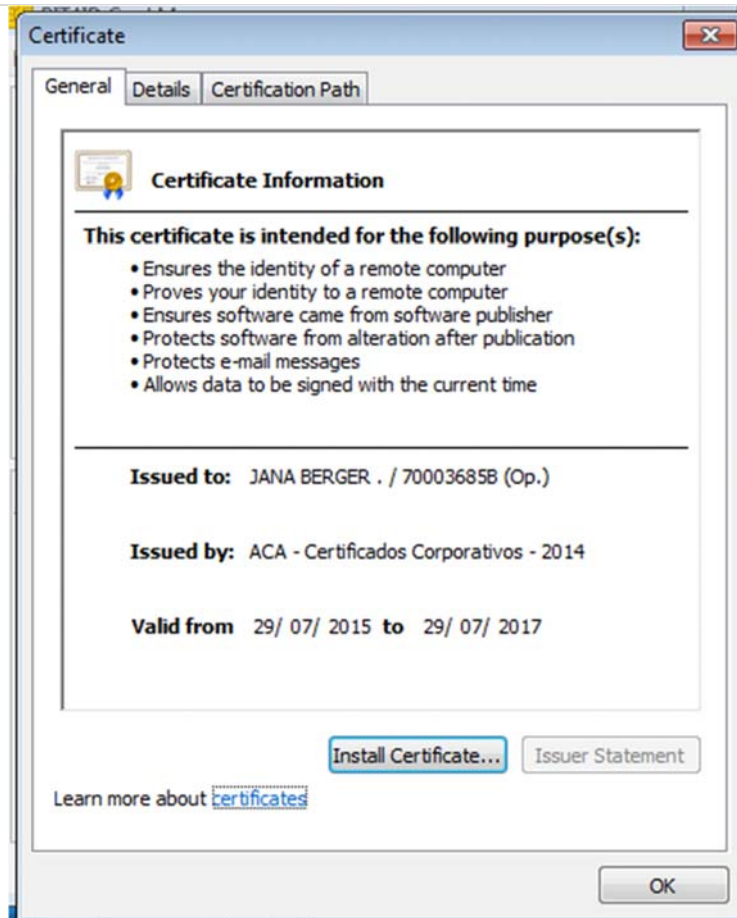
Unlock PIN

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

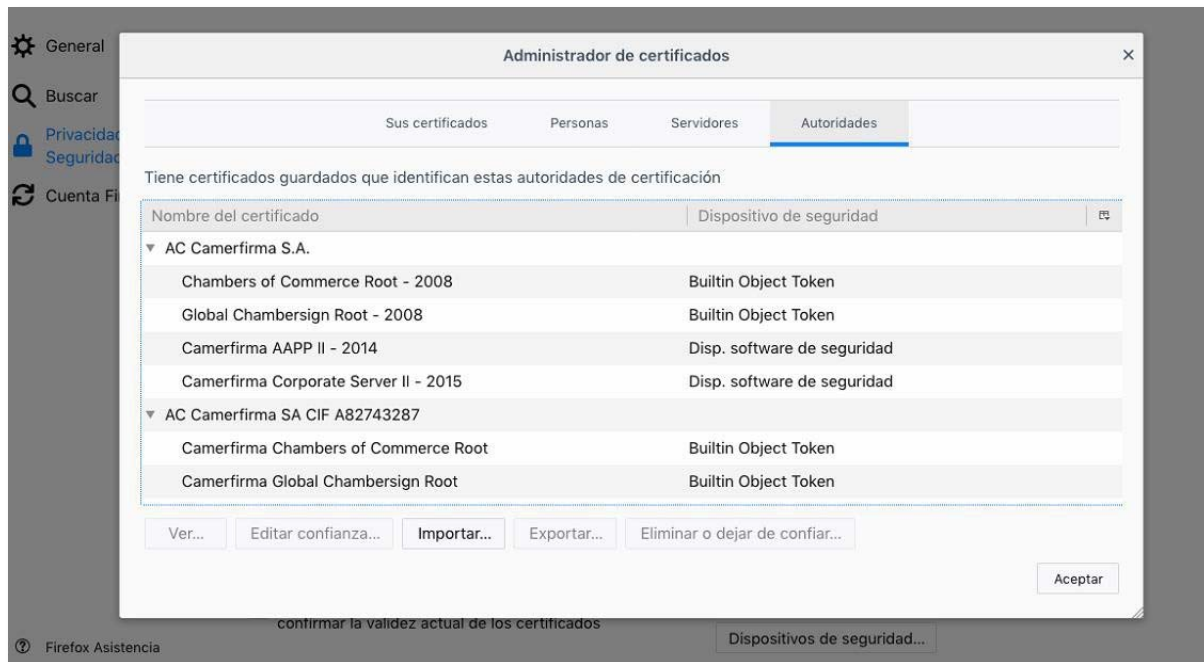
Feature showing the version of the Smartcard Manager Application installed



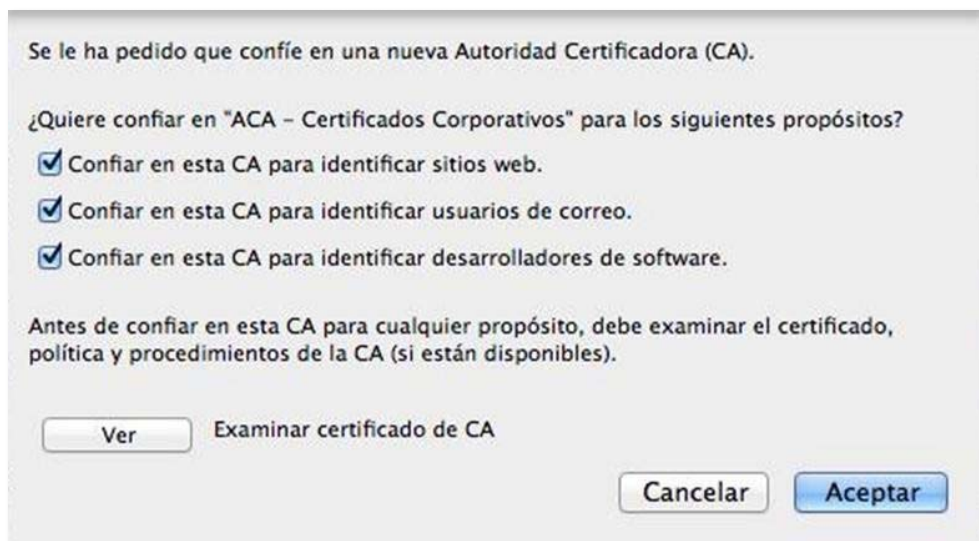
Part Three - Installing the Certificates, aka Public Keys

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. 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.

1. Download root and intermediate certificates using the following link. [Download all root certificates](#)
Once these are downloaded, go to: [Firefox -> Options -> Privacy & Security -> View Certificates -> Authorities -> Import](#).



Import all the downloaded certificates one at a time, **ticking** the three trust checkboxes:



2. Bit4id Cryptographic Module:

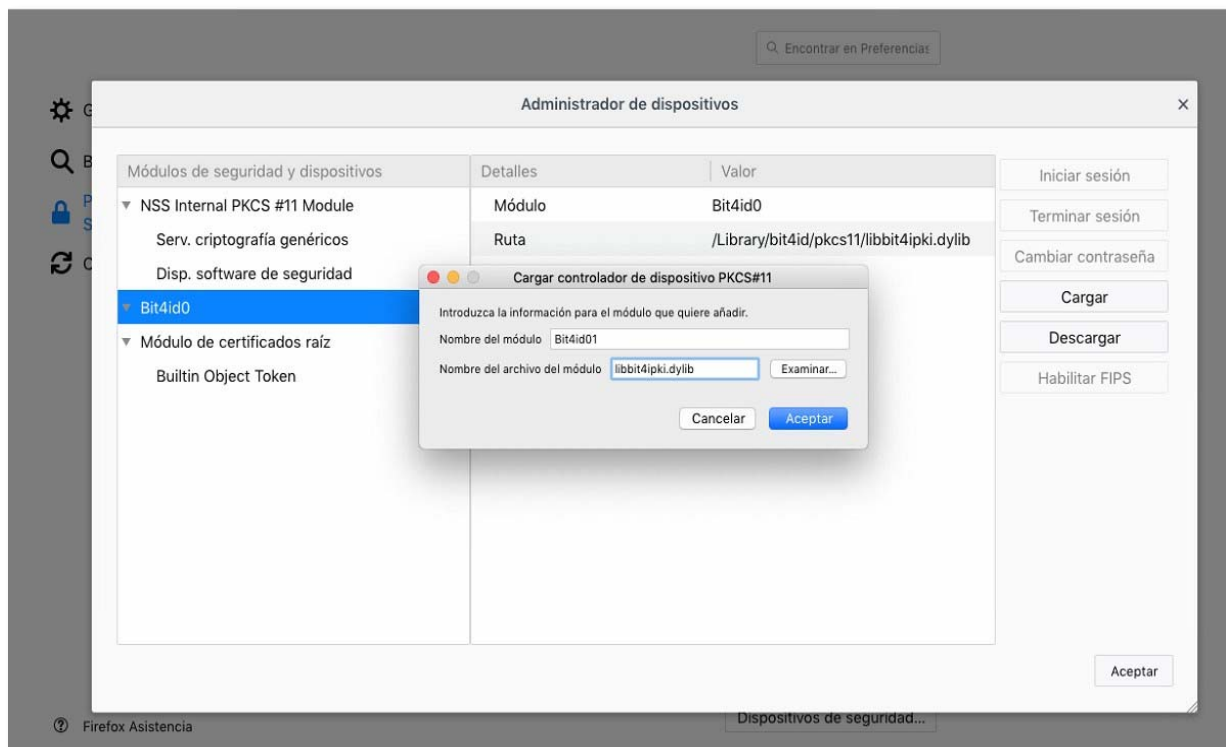
After the installation of the last driver, the cryptographic module will complete automatically, but if for any reason this does not happen or it does not work correctly, these are the steps to follow:

To **load** the cryptographic module into Firefox (this is necessary to read the card), go to:

Firefox -> Options -> Privacy & Security -> Security Devices -> Load.

Enter these values into the two fields:

- Module Name = Bit4id
- Module filename = /Libreria/bit4id/pkcs11/libbit4ipki.dylib



If - after closing the pop-up box to load the driver for the PKCS#11 device - the system has not added the Bit4id module (**libbit4ipki.dylib**), the filename may be incorrect. You have to use the complete path and filename for the file, which is: **/Libreria/bit4id/pkcs11/libbit4ipki.dylib**

Once finished, the computer is now ready to use the card reader and to connect to the RedAbogacia systems.

3. Firefox Security Exceptions

In order for our platform to work correctly, you must **update** the Firefox Security Exceptions as follows:

Firefox -> Options -> Privacy & Security -> Warn you when web sites try to install add-ons ->

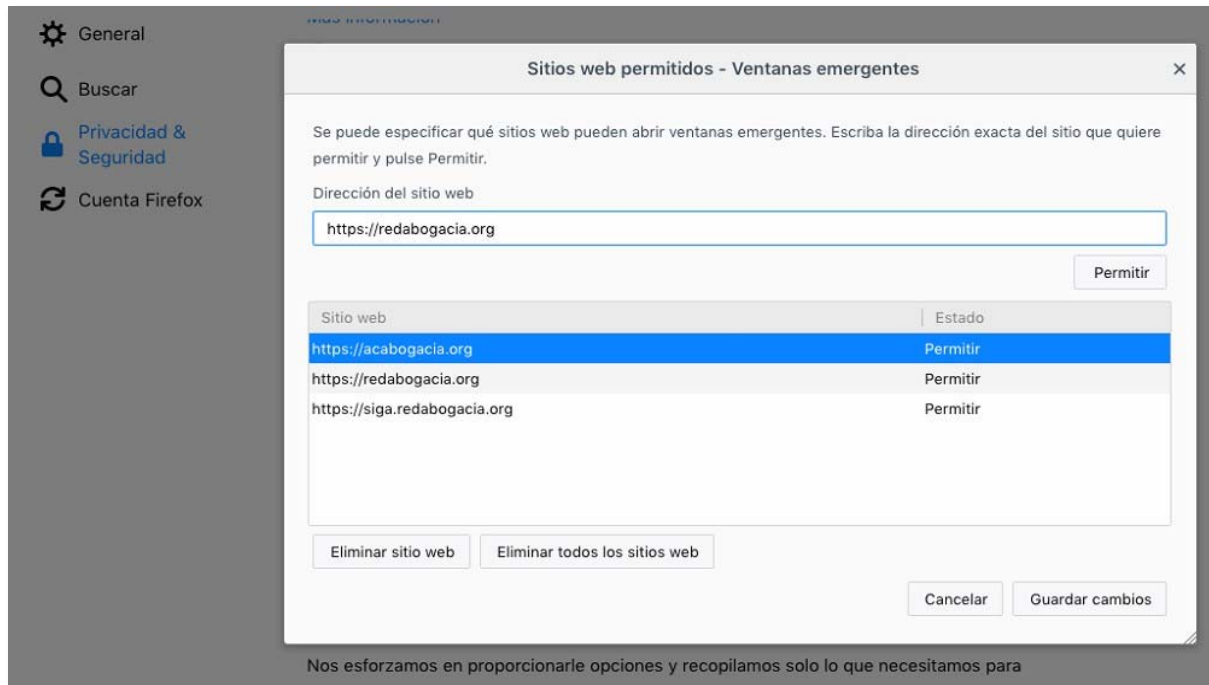
Exceptions:

Type the URL of the following three websites in the address bar and **click Allow**:

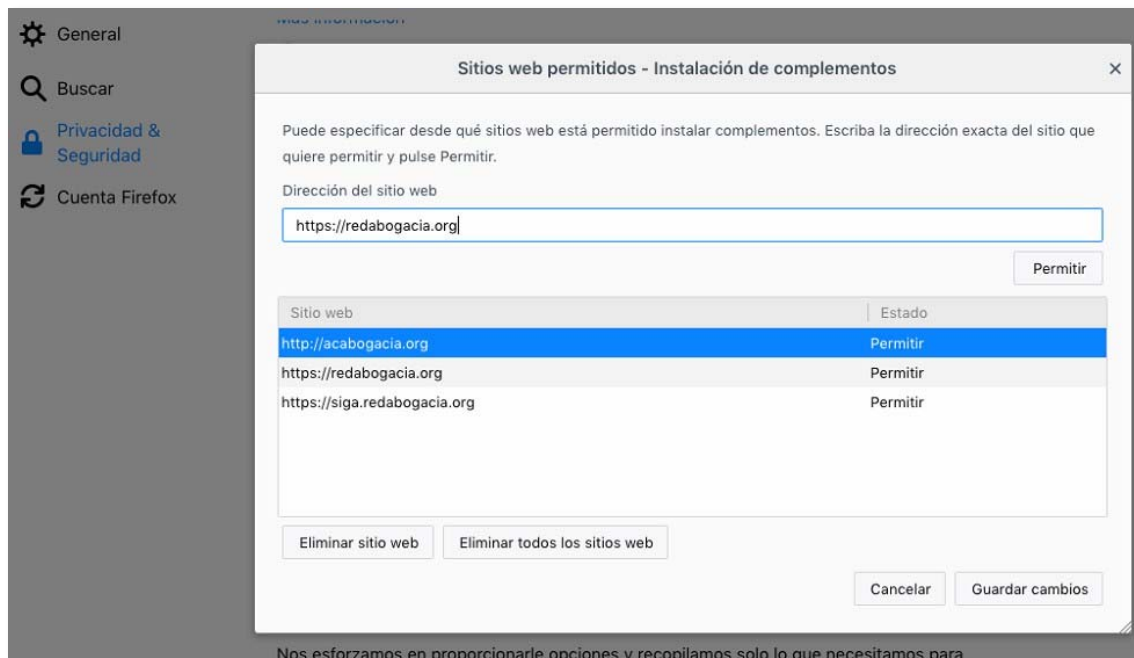
<https://redabogacia.org>

<https://acabogacia.org>

<https://siga.redabogacia.org>



Firefox -> Options -> Privacy & Security -> Warn you when web sites try to install add-ons -> Exceptions:



With these sites added to the list of allowed exceptions, **click Save** changes to save your changes.