

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 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.)

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: <u>http://getfirefox.com/</u>

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)

General	Actualizaciones de Hiretox			
<b>L</b> Buscar	Mantenga Firefox actualizado para un rendimie	ento, estabilidad y seguridad óptimos.		
Privacidad &	Versión 60.2.1esr (64-bit) Novedades	Mostrar historial de actualizaciones		
Seguridad		Actualizar a 60.4.0esr		
Cuenta Firefox				
	Permitir a Firefox			
	<ul> <li>Instalar actualizaciones automáticamente (recomendado)</li> </ul>			
	<ul> <li>Buscar actualizaciones, pero permitirle ele</li> </ul>	egir si instalarlas		
	No buscar actualizaciones (no recomenda	ado)		
	<ul> <li>Actualizar automáticamente los buscadore</li> </ul>	es		
	Rendimiento			
	✓ Usar configuración de rendimiento recome	endada Saber más		
	Esta configuración está ajustada al hardware y	v sistema operativo de su equipo.		

## Step 2: Installing Java

First, **check** that JAVA is installed using this link <u>www.java.com</u>. 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<sup>™</sup> Platform, Standard Edition Development Kit (JDK<sup>™</sup>). 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	idk-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 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 the Firefox web browser
- 6. Enter the following details into the search filter options:

Brand: OmnikeyProduct: Onmikey 3121 USB Card ReaderOS: 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 & Se
Use the dropdown menus below to find the drivers and downloads you war You can also search by product or keyword.	nt.				
OMNTKEY 3121 USB Card Reader	All OSs				
Reset All	Linux Linux x64 MacOS X Win 2000/XP				
Drivers	Win 2003 Serve Win 2003 Serve Win 98/ME	er er x64			
OMNIKEY 512X, 532X, 1021, 3X21, 6121 PCSC FOR LIN	Windows 10 32 Windows 10 64 Windows 2000	2-Bit I-Bit			
ifdokccid_linux_1686-v4.2.8.tar.gz - 417.77 KB	Windows 7 Windows 7 x64 Windows 8				
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 x64 Windows 8.1 x Windows 8.1 x Windows CE Windows CE	4 32 64			
2016-06-08 Requirements: Linux 1686, eglibc-2.11.3, libusb-1.0.8	Windows Serve Windows Vista Windows Vista	x64			
	Windows XP WinXP 64 Bit T WinXP x64 Edit	itanium tion			
OMNIKEY 512X, 532X, 1021, 3X21, 6121 PCSC FOR LIN	UX X86_64	00 km 0010			
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 fu	lly qualified.	Lindx X04			
PCSC driver for OMNIKEY 1021, 3x21, 6121, 512x, 532x v4.2.8 Rele	ase date:	DOV	VNLOAD		

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.

Se ha derinido una contras	eña de inicio de se	sión para este	e usuario	Cambiar contraseña
Solicitar contraseña	a 15 minutos	👌 tras inic	iarse el repo	oso o el salvapantallas
🗍 Mostrar un mensaje	e cuando la pantalia	esté bloques	ada Definir	mensaje
( <u>v</u> ) beside (var er interio	ue sesion eutomati			
Permitir apps descargadas	: de:			
Permitir apps descargadas	de:			
Permitir apps descargadas App Store App Store y desarro	de: olladores identificad	dos		
Permitir apps descargadas App Store App Store y desarro Se ha bloqueado la ejecuci proviene de un desarrollad	: de: olladores identificad ión de "bit4id-midd lor identificado.	dos lleware-signe	d.pkg" porqu	ue no Abrir igualme
Permitir apps descargadas App Store App Store y desarro Se ha bloqueado la ejecuci proviene de un desarrollad	de: olladores identificad ión de "bit4id-midd or identificado.	dos leware-signe	d.pkg″ porqu	ue no Abrir igualme

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
<b>Application</b> Launch program from program menu, desktop or ribbon	Bit4id - Smart Card Manager Do Bit4id - Smart Card Manager



#### 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.

Tokens	Login
OSD [OMNIKEY AG Smart Card Reader USB 0]	Refresh
	Import
	Export
	Reset device
PIN	
PIN PIN OK	Cancel Register certificates
PIN Field Desc Seria Manufacturer Bit4id Model DS2048 (LB)	Cancel Register certificates
PIN Field Desc Seria Manufacturer Bit4id Model DS2048 (LB) PIN status PIN is OK PUK status PUK is OK Total memory 65536 Free memory N/A	Cancel Register certificates Information





Certificate View	Catificate
Feature for viewing the list of digital certificates on the Smartcard	General Details Certification Path
	Certificate Information
	This certificate is intended for the following purpose(s): • Ensures the identity of a remote computer • Proves your identity to a remote computer • Ensures software came from software publisher • Protects software from alteration after publication • Protects e-mail messages • Allows data to be signed with the current time
	Issued to: JANA BERGER . / 70003685B (Op.) Issued by: ACA - Certificados Corporativos - 2014
	Valid from 29/ 07/ 2015 to 29/ 07/ 2017
	Install Certificate Issuer Statement
	ОК
Information	· · · · · · · · · · · · · · · · · · ·
Feature showing the version of the Smartcard Manager Application installed	Information
	Copyright 2013 Bit4id.com, All rights reserved.
	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
	ОК

# 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. <u>Download all root certificates</u> Once these are downloaded, go to: Firefox -> Options -> Privacy & Security -> View Certificates -> Authorities -> Import.

Admi	nistrador de certificados	
Sus certificados	Personas Servidores Autoridades	
Tiene certificados guardados que identifican estas auto	oridades de certificación	
Nombre del certificado	Dispositivo de seguridad	
▼ AC Camerfirma S.A.		
Chambers of Commerce Root - 2008	Builtin Object Token	
Global Chambersign Root - 2008	Builtin Object Token	
Camerfirma AAPP II - 2014	Disp. software de seguridad	
Camerfirma Corporate Server II - 2015	Disp. software de seguridad	
AC Camerfirma SA CIF A82743287		
Camerfirma Chambers of Commerce Root	Builtin Object Token	
Camerfirma Global Chambersign Root	Builtin Object Token	
Ver Editar confianza Importar Ex	portar Eliminar o dejar de confiar	
		Aceptar
	10 - 11	

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

Se le ha pedido	o que confíe en una nueva Autoridad Certificadora (CA).
¿Quiere confia	r en "ACA – Certificados Corporativos" para los siguientes propósitos?
Confiar en	esta CA para identificar sitios web.
Confiar en	esta CA para identificar usuarios de correo.
Confiar en	esta CA para identificar desarrolladores de software.
Antes de confi política y proce	ar en esta CA para cualquier propósito, debe examinar el certificado, edimientos de la CA (si están disponibles).
Ver	Examinar certificado de CA
	Consultar Accenter

### 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

	Administrador	de dispositivos	
Módulos de seguridad y dispositivos • NSS Internal PKCS #11 Module	Detalles Módulo	Valor Bit4id0	Iniciar sesión Terminar sesión
Serv. criptografia genericos Disp. software de seguridad	Ruta	/Library/bit4id/pkcs11/libbit4ipki.	Cambiar contrasei
<ul> <li>Bit4id0</li> <li>Módulo de certificados raíz</li> <li>Builtin Object Token</li> </ul>	Introduzca la información para el m Nombre del módulo Bit4id01 Nombre del archivo del módulo III	ódulo que quiere añadir. bbit4ipki.dylib Examinar Cancelar Aceptar	Descargar Habilitar FIPS

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:

General	maa mormaalan	
Q Buscar	Sitios web permitidos - Ventana	s emergentes
Privacidad & Seguridad	Se puede especificar qué sitios web pueden abrir ventanas emergent permitir y pulse Permitir.	tes. Escriba la dirección exacta del sitio que quiere
Cuenta Firefox	https://redabogacia.org	
		Permitir
	Sitio web	Estado
	https://acabogacia.org	Permitir
	https://redabogacia.org	Permitir
	https://siga.redabogacia.org	Permitir
	Eliminar sitio web Eliminar todos los sitios web	
		Concelar Quardar combins

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

🔅 General	mas mosmacion			
<b>Q</b> Buscar	Sitios web permitidos - Instalación de	complementos ×		
Privacidad & Seguridad	Puede especificar desde qué sitios web está permitido instalar complementos. Escriba la dirección exacta del sitio que quiere permitir y pulse Permitir.			
Cuenta Firefox				
	https://redabogacia.org			
		Permitir		
	Sitio web	Estado		
	http://acabogacia.org	Permitir		
	https://redabogacia.org	Permitir		
	https://siga.redabogacia.org	Permitir		
	Eliminar sitio web Eliminar todos los sitios web	Cancelar Guardar cambios		
	Nos esforzamos en proporcionarle opciones y recopilamos solo	o que necesitamos para		

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